



**BUDGET**

# 2023

**Working together  
for a better Ottawa**

**Environment and  
Climate Change  
Committee – Rate  
Supported**

**Tabled February 1, 2023**

**DRAFT**





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## **Infrastructure & Water Services Department**

### **2023 Service Area Summary - Drinking Water Services**

Drinking Water Services is responsible for the production and distribution of safe, high-quality drinking water through the operation and maintenance of the Ottawa's water supply. The central system includes the Britannia and Lemieux Island Water Purification Plants and treated water from both plants is pumped into a vast water distribution network that includes 16 pumping stations, 5 reservoirs, 4 elevated tanks, and 3,800 km of watermain pipes. In addition, the City operates six municipal well systems: Carp Drinking Water System, Kings Park (Richmond) Drinking Water System, Munster Hamlet Drinking Water System, Richmond West (Richmond) Drinking Water System, Shadow Ridge (Greely) Drinking Water System and Vars Drinking Water System.

#### **Programs/Services Offered**

- Day to day operations and maintenance for treatment plants, pump stations, reservoirs, tanks, and well systems
- Operation of a dedicated computer-control (SCADA) system to monitor all water operations 24/7
- Compliance with all drinking water regulations, inspections, audits, and operator certification requirements
- Distribution system operation, inspection and maintenance (pipe disinfection, system isolation, connections, repairs) for approximately 3,800 km of watermains and 58,000 valves
- Emergency and scheduled repair of watermain breaks throughout distribution system ~250 break repairs per year
- First Response - 24 hour per day response for residents with drinking water and wastewater concerns
- Provision of fire protection through inspection, maintenance and repair of over 23,000 public fire hydrants
- Maintaining the City's accreditation as an Operating Authority for the Drinking Water Quality Management System
- Process optimization, research, and continual improvements to the water treatment process
- Water quality sampling, testing, monitoring, and reporting of 100,000 tests per year for quality assurance
- Customer service for on-site water quality testing, complaints, water meters, inquiries, etc.
- Technical and operational support for capital infrastructure renewal and development projects
- Participation in water industry activities and organizations (committees, university research, advisory councils, etc.)

City of Ottawa  
Infrastructure & Water Services Department  
Drinking Water Services - Operating Resource Requirement  
In Thousands (\$000)

	2021	2022		2023	\$ Change over 2022 Budget
	Actual	Forecast	Budget	Estimate	
<b>Expenditures by Program</b>					
Facilities and Treatment	39,882	39,739	40,039	42,739	2,700
Linear and Customer Service	32,560	36,973	38,423	38,938	515
Non Departmental	132,607	134,708	134,708	135,548	840
<b>Gross Expenditure</b>	<b>205,049</b>	<b>211,420</b>	<b>213,170</b>	<b>217,225</b>	<b>4,055</b>
Recoveries & Allocations	(14,186)	(14,577)	(13,827)	(13,827)	0
Revenue	(194,964)	(198,743)	(199,343)	(203,398)	(4,055)
<b>Net Requirement</b>	<b>(4,101)</b>	<b>(1,900)</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Expenditures by Type</b>					
Salaries, Wages & Benefits	28,247	28,743	31,543	32,623	1,080
Overtime	1,209	1,447	1,997	1,997	0
Material & Services	19,790	22,350	20,750	22,550	1,800
Transfers/Grants/Financial Charges	103,656	106,029	106,029	106,434	405
Fleet Costs	3,232	3,381	3,381	3,641	260
Program Facility Costs	0	0	0	0	0
Other Internal Costs	48,915	49,470	49,470	49,980	510
<b>Gross Expenditures</b>	<b>205,049</b>	<b>211,420</b>	<b>213,170</b>	<b>217,225</b>	<b>4,055</b>
Recoveries & Allocations	(14,186)	(14,577)	(13,827)	(13,827)	0
<b>Net Expenditure</b>	<b>190,863</b>	<b>196,843</b>	<b>199,343</b>	<b>203,398</b>	<b>4,055</b>
<b>Revenues By Type</b>					
Federal	0	0	0	0	0
Provincial	(235)	0	0	0	0
Own Funds	(1,718)	(650)	(650)	(650)	0
Fees and Services	(193,011)	(198,093)	(198,693)	(202,748)	(4,055)
Fines	0	0	0	0	0
Other	0	0	0	0	0
<b>Total Revenue</b>	<b>(194,964)</b>	<b>(198,743)</b>	<b>(199,343)</b>	<b>(203,398)</b>	<b>(4,055)</b>
<b>Net Requirement</b>	<b>(4,101)</b>	<b>(1,900)</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Full Time Equivalents</b>			<b>293.86</b>	<b>299.86</b>	<b>6.00</b>

**City of Ottawa**  
**Infrastructure & Water Services Department**  
**Drinking Water Services - User Fees**

	2021 Rate \$	2022 Rate \$	2023 Rate \$	% Change Over 2022	% Change Over 2021	Effective Date	2023 Revenue (\$000)
<b>Water Services Connection</b>							(20)
<b>All sizes of Service Pipe</b>							
Cost plus 15%, hourly	150.00	153.00	156.00	2.0%	4.0%	01-Apr-23	
Additional visit (service connection 20 mm-50 mm) - Cost plus 15%, hourly (new fee)	150.00	153.00	156.00	2.0%	4.0%	01-Apr-23	
Additional visit (service connection > 50 mm) - Cost plus 15%, hourly (new fee)	215.00	219.00	223.00	1.8%	3.7%	01-Apr-23	
Private service connection - Cost plus 15%, hourly (new fee)	150.00	153.00	156.00	2.0%	4.0%	01-Apr-23	
<b>Services</b>							
<b>All Thawing of Services</b>							
Cost plus 15%, hourly	185.00	191.00	195.00	2.1%	5.4%	01-Apr-23	
Fire Flow Test Support	271.00	276.00	282.00	2.2%	4.1%	01-Apr-23	
<b>Service Charges</b>							
Turn water services off and on for non payment	202.00	208.00	212.00	1.9%	5.0%	01-Apr-23	
Turn off or on of water services (per operation)	101.00	104.00	106.00	1.9%	5.0%	01-Apr-23	
Permit for Flusher Hydrant Usage	288.00	297.00	303.00	2.0%	5.2%	01-Apr-23	
<b>Blanking of Water Services</b>							
All sizes	Cost plus 15% \$4,000.00 deposit	Cost plus 15% \$4,000.00 deposit	Cost plus 15% \$4,000.00 deposit	0.0%	0.0%	01-Apr-23	
<b>Inspection Fees (Inspection of activities connected to the water distribution system)</b>							
All new watermains and services that don't require full disinfection	212.00	216.00	220.00	1.9%	3.8%	01-Apr-23	
All new watermains and services up to 50m long that require full disinfection	630.00	643.00	656.00	2.0%	4.1%	01-Apr-23	
All new watermains and services over 50m long that require full disinfection	Cost plus 15%	Cost plus 15%	Cost plus 15%			01-Apr-23	



**City of Ottawa**  
**Infrastructure & Water Services Department**  
**Drinking Water Services - User Fees**

	2021 Rate \$	2022 Rate \$	2023 Rate \$	% Change Over 2022	% Change Over 2021	Effective Date	2023 Revenue (\$000)
<b>Meter Service Charges</b>							
Inspection/Re-Inspection for New Water Meters (<= 20 mm meter)	106.00	109.00	112.00	2.8%	5.7%	01-Apr-23	
Meter Maintenance Service Call	181.00	186.00	192.00	3.2%	6.1%	01-Apr-23	
Water Meter Accuracy Test (<= 25 mm meter)	149.00	153.00	153.00	0.0%	2.7%	01-Apr-23	
Water Meter Accuracy Test (> 25 mm meter) (New in 2019)	199.00	205.00	205.00	0.0%	3.0%	01-Apr-23	
Additional visits (<= 25 mm meter)	70.00	72.00	74.00	2.8%	5.7%	01-Apr-23	
Additional visits (large meters greater than 25)	117.00	121.00	121.00	0.0%	3.4%	01-Apr-23	
Additional visits (fire line meters)	220.00	227.00	234.00	3.1%	6.4%	01-Apr-23	
Manual Meter Reading Fee	41.00	42.00	43.00	2.4%	4.9%	01-Apr-23	
<b>New Water Meters</b>							
<b>Size of Meter</b>							
15 mm Pos. Disp.	400.00	412.00	424.00	2.9%	6.0%	01-Apr-23	
15 mm Pos. Disp.(Carlsbad only)	602.00	620.00	639.00	3.1%	6.1%	01-Apr-23	
20 mm Pos. Disp.	443.00	456.00	470.00	3.1%	6.1%	01-Apr-23	
25 mm Pos. Disp.	521.00	537.00	553.00	3.0%	6.1%	01-Apr-23	
40 mm Pos. Disp.	970.00	999.00	1,029.00	3.0%	6.1%	01-Apr-23	
50 mm Pos. Disp.	1,077.00	1,109.00	1,142.00	3.0%	6.0%	01-Apr-23	
75 mm Magnetic	2,335.00	2,405.00	2,477.00	3.0%	6.1%	01-Apr-23	
75 mm Ultrasonic	3,292.00	3,391.00	3,391.00	0.0%	3.0%	01-Apr-23	
100 mm Magnetic	2,836.00	2,921.00	3,009.00	3.0%	6.1%	01-Apr-23	
100 mm Ultrasonic	3,753.00	3,866.00	3,866.00	0.0%	3.0%	01-Apr-23	
150 mm Magnetic	5,230.00	5,387.00	5,549.00	3.0%	6.1%	01-Apr-23	
150 mm Ultrasonic	5,641.00	5,810.00	5,984.00	3.0%	6.1%	01-Apr-23	
Fire Line Meter Assembly - Cost plus 15%, hourly	223.00	230.00	237.00	3.0%	6.3%	01-Apr-23	



**City of Ottawa**  
**Infrastructure & Water Services Department**  
**Drinking Water Services - User Fees**

	2021 Rate \$	2022 Rate \$	2023 Rate \$	% Change Over 2022	% Change Over 2021	Effective Date	2023 Revenue (\$000)
<b>Replacement Water Meters</b>							
<b>Size of Meter</b>							
15 mm Pos. Disp.	289.00	298.00	307.00	3.0%	6.2%	01-Apr-23	
15 mm Pos. Disp.(Carlsbad only)	294.00	303.00	312.00	3.0%	6.1%	01-Apr-23	
20 mm Pos. Disp.	333.00	343.00	353.00	2.9%	6.0%	01-Apr-23	
25 mm Pos. Disp.	412.00	424.00	437.00	3.1%	6.1%	01-Apr-23	
40 mm Pos. Disp.	824.00	849.00	874.00	2.9%	6.1%	01-Apr-23	
50 mm Pos. Disp.	935.00	963.00	992.00	3.0%	6.1%	01-Apr-23	
75 mm Magnetic	2,096.00	2,159.00	2,224.00	3.0%	6.1%	01-Apr-23	
75 mm Ultrasonic	3,051.00	3,143.00	3,143.00	0.0%	3.0%	01-Apr-23	
100 mm Magnetic	2,595.00	2,673.00	2,753.00	3.0%	6.1%	01-Apr-23	
100 mm Ultrasonic	3,512.00	3,617.00	3,617.00	0.0%	3.0%	01-Apr-23	
150 mm Magnetic	4,998.00	5,148.00	5,302.00	3.0%	6.1%	01-Apr-23	
150 mm Ultrasonic	5,400.00	5,562.00	5,562.00	0.0%	3.0%	01-Apr-23	
Temporary removal and installation of meter	150.00	155.00	160.00	3.2%	6.7%	01-Apr-23	
City water meter reading device (new or damaged) replacement	227.00	234.00	241.00	3.0%	6.2%	01-Apr-23	
City water meter reading device and/or water meter reader wire re-location	179.00	184.00	190.00	3.3%	6.1%	01-Apr-23	
<b>Total for all fees above</b>							(20)

**City of Ottawa**  
**Infrastructure & Water Services Department**  
**Drinking Water Services - User Fees**

	2021 Rate \$	2022 Rate \$	2023 Rate \$	% Change Over 2022	% Change Over 2021	Effective Date	2023 Revenue (\$000)
<b>Non Departmental</b>							(3,585)
<b>Distribution of Drinking Water</b>							
<b>Variable Rate - per cubic meter water consumed</b>							
0 - 6 m3	0.85	0.88	0.90	2.6%	5.6%	01-Apr-23	
>6 - 25 m3	1.70	1.75	1.79	2.0%	5.1%	01-Apr-23	
>25 - 180 m3	1.87	1.93	1.97	2.0%	5.0%	01-Apr-23	
>180 m3	2.09	2.15	2.20	2.0%	5.1%	01-Apr-23	
<b>Daily Fixed Fee Rates - per meter size</b>							
15 mm	0.35	0.36	0.36	1.0%	3.8%	01-Apr-23	
20 mm	0.50	0.51	0.53	2.0%	5.0%	01-Apr-23	
25 mm	0.84	0.86	0.88	2.0%	4.6%	01-Apr-23	
40 mm	1.67	1.72	1.75	2.0%	4.6%	01-Apr-23	
50 mm	2.66	2.74	2.80	2.0%	5.0%	01-Apr-23	
75 mm	5.01	5.14	5.25	2.0%	4.8%	01-Apr-23	
100 mm	8.35	8.57	8.75	2.0%	4.7%	01-Apr-23	
150 mm	16.69	17.15	17.50	2.0%	4.9%	01-Apr-23	
200 mm	26.71	27.44	28.00	2.0%	4.8%	01-Apr-23	
250 mm	38.40	39.44	40.24	2.0%	4.8%	01-Apr-23	
300 mm	71.80	73.74	75.25	2.0%	4.8%	01-Apr-23	
Compound Meter	1.58	1.62	1.65	1.7%	4.8%	01-Apr-23	

**City of Ottawa**  
**Infrastructure & Water Services Department**  
**Drinking Water Services - User Fees**

	2021 Rate \$	2022 Rate \$	2023 Rate \$	% Change Over 2022	% Change Over 2021	Effective Date	2023 Revenue (\$000)
<b>Fire Supply Charge</b>							(450)
<b>Annual cost - per meter size</b>							
15 mm meter	49.11	50.59	51.60	2.0%	5.1%	01-Apr-23	
20 mm meter	87.32	89.94	91.74	2.0%	5.1%	01-Apr-23	
25 mm meter	136.45	140.54	143.35	2.0%	5.1%	01-Apr-23	
40 mm meter	349.29	359.76	366.96	2.0%	5.1%	01-Apr-23	
50 mm meter	545.77	562.14	573.39	2.0%	5.1%	01-Apr-23	
75 mm meter	1,227.97	1,264.81	1,290.11	2.0%	5.1%	01-Apr-23	
100 mm meter	2,183.05	2,248.55	2,293.52	2.0%	5.1%	01-Apr-23	
150 mm meter	4,911.88	5,059.23	5,160.42	2.0%	5.1%	01-Apr-23	
200 mm meter	8,732.23	8,994.19	9,174.08	2.0%	5.1%	01-Apr-23	
250 mm meter	13,644.11	14,053.43	14,334.50	2.0%	5.1%	01-Apr-23	
<b>Total Departmental</b>							<b>(4,055)</b>

## **Infrastructure & Water Services Department**

### **2023 Service Area Summary - Wastewater Services**

Wastewater Services is responsible for the management, operations, and maintenance of the wastewater collection system and treatment plant. The collection systems include sanitary, combined, storm sewers and facilities. The City's wastewater is treated at the Robert O. Pickard Environmental Centre (ROPEC) to ensure minimal environmental impact upon re-entry to the Ottawa River. This includes comprehensive maintenance and operation within regulatory framework, and an environmentally sound management of facilities and collection systems. Wastewater Treatment is also responsible for maintenance, operation and repairs of the Supervisory control and data acquisition (SCADA) system and ROPEC.

#### **Programs/Services Offered**

- Operation and maintenance (including cleaning, inspection, and repair) of the wastewater collection system, comprised of over 5,953 km of sanitary, combined, and storm pipes, 94,636 maintenance holes, 103,872 catch basins, and 1,777 stormwater outlets
- Operation and maintenance of 91 facilities including sanitary sewage and storm water pumping stations, combined sewage regulators/storage facilities (including the Combined Sewage Storage Tunnel), odour control facilities and ROPEC, where all the City's wastewater is treated
- Sewer Use By-law compliance, monitoring, and enforcement, to ensure discharges into the sewer system are within regulatory limits
- Compliance with all wastewater regulations, inspections, audits, and operator certification requirements
- SCADA and communication systems maintenance and operation
- Operational support for capital infrastructure rehabilitation, renewal and development projects, including upgrades to ROPEC facility
- Quality assurance, compliance management and reporting
- Process optimization, and continual improvements to the wastewater collection system and treatment process

City of Ottawa  
Infrastructure & Water Services Department  
Wastewater Services - Operating Resource Requirement  
In Thousands (\$000)

	2021	2022		2023	\$ Change over 2022 Budget
	Actual	Forecast	Budget	Estimate	
<b>Expenditures by Program</b>					
Facilities and Treatment	36,443	32,680	32,380	34,360	1,980
Linear and Customer Service	23,475	26,462	25,512	26,437	925
Non Departmental	123,020	125,253	125,253	127,233	1,980
<b>Gross Expenditure</b>	<b>182,938</b>	<b>184,395</b>	<b>183,145</b>	<b>188,030</b>	<b>4,885</b>
Recoveries & Allocations	(21,920)	(14,355)	(13,905)	(13,980)	(75)
Revenue	(161,036)	(167,740)	(169,240)	(174,050)	(4,810)
<b>Net Requirement</b>	<b>(18)</b>	<b>2,300</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Expenditures by Type</b>					
Salaries, Wages & Benefits	23,538	25,198	24,498	26,012	1,514
Overtime	746	886	936	967	31
Material & Services	25,812	26,593	26,393	27,293	900
Transfers/Grants/Financial Charges	97,508	99,270	99,270	100,075	805
Fleet Costs	1,716	1,954	1,554	2,014	460
Program Facility Costs	0	0	0	0	0
Other Internal Costs	33,618	30,494	30,494	31,669	1,175
<b>Gross Expenditures</b>	<b>182,938</b>	<b>184,395</b>	<b>183,145</b>	<b>188,030</b>	<b>4,885</b>
Recoveries & Allocations	(21,920)	(14,355)	(13,905)	(13,980)	(75)
<b>Net Expenditure</b>	<b>161,018</b>	<b>170,040</b>	<b>169,240</b>	<b>174,050</b>	<b>4,810</b>
<b>Revenues By Type</b>					
Federal	0	0	0	0	0
Provincial	0	0	0	0	0
Own Funds	(4,477)	(4,725)	(4,725)	(4,725)	0
Fees and Services	(156,559)	(163,015)	(164,515)	(169,325)	(4,810)
Fines	0	0	0	0	0
Other	0	0	0	0	0
<b>Total Revenue</b>	<b>(161,036)</b>	<b>(167,740)</b>	<b>(169,240)</b>	<b>(174,050)</b>	<b>(4,810)</b>
<b>Net Requirement</b>	<b>(18)</b>	<b>2,300</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Full Time Equivalents</b>			<b>215.50</b>	<b>219.50</b>	<b>4.00</b>

**City of Ottawa**  
**Infrastructure & Water Services Department**  
**Wastewater Services - User Fees**

	2021 Rate \$	2022 Rate \$	2023 Rate \$	% Change Over 2022	% Change Over 2021	Effective Date	2023 Revenue (\$000)
<b>Sanitary Sewer Systems</b>							(15)
<b>Sewer Use Program - Disposal Fees</b>							
Septic Tank Strength Liquid Material (per cubic meter)	17.10	17.10	17.10	0.0%	0.0%	01-Apr-23	
Holding Tank Strength Liquid Material (per cubic metre)	3.67	3.67	3.67	0.0%	0.0%	01-Apr-23	
Liquid Material Generated Outside the City of Ottawa (per cubic metre)	29.81	29.81	29.81	0.0%	0.0%	01-Apr-23	
<b>Sewer Use Program - Permit Fees</b>							
Annual Permit Fee	291.00	355.00	362.00	2.0%	24.4%	01-Apr-23	
Annual Permit Revision Fee	163.00	143.00	146.00	2.1%	-10.4%	01-Apr-23	
<b>Sewer Use Program - Discharge Fees</b>							
Conveyance Fee	1.64	1.71	1.74	2.0%	6.1%	01-Apr-23	
Treatment Fee	1.02	1.06	1.08	2.0%	6.1%	01-Apr-23	
<b>Sewer Use Program - Discharge Fees - Parameters in Sewage</b>							
Biochemical Oxygen Demand (per kg)	1.66	1.66	1.66	0.0%	0.0%	01-Apr-23	
Suspended Solids (per kg)	0.88	0.88	0.88	0.0%	0.0%	01-Apr-23	
Phenolic Compounds (per kg)	1.66	1.66	1.66	0.0%	0.0%	01-Apr-23	
Kjeldahl Nitrogen (per kg)	6.60	6.60	6.60	0.0%	0.0%	01-Apr-23	
Phosphorus (per kg)	2.66	2.66	2.66	0.0%	0.0%	01-Apr-23	
<b>Sewer Use Program - Administrative Fees</b>							
Special Discharge Agreement Fee	1,129.00	1,482.00	1,512.00	2.0%	33.9%	01-Apr-23	
Sanitary Sewer Agreement Fee	804.00	744.00	759.00	2.0%	-5.6%	01-Apr-23	
Compliance Program Fee	1,129.00	1,399.00	1,427.00	2.0%	26.4%	01-Apr-23	
Combined Agreement Fee	1,129.00	1,416.00	1,444.00	2.0%	27.9%	01-Apr-23	
Sanitary Discharge Agreement Revision Fee	243.00	292.00	298.00	2.1%	22.6%	01-Apr-23	
Combined Agreement Revision Fee	243.00	292.00	298.00	2.1%	22.6%	01-Apr-23	
Sanitary Sewer Agreement Revision Fee (per revision)	120.00	367.00	374.00	1.9%	211.7%	01-Apr-23	
Compliance Program Revision Fee (per revision)	243.00	292.00	298.00	2.1%	22.6%	01-Apr-23	

**City of Ottawa**  
**Infrastructure & Water Services Department**  
**Wastewater Services - User Fees**

	2021 Rate \$	2022 Rate \$	2023 Rate \$	% Change Over 2022	% Change Over 2021	Effective Date	2023 Revenue (\$000)
<b>Non Departmental</b>							(4,795)
<b>Sewer Surcharge for Sanitary Sewer Systems</b>							
<b>Variable Rate - per cubic meter water consumed</b>							
0 - 6 m3	0.78	0.81	0.83	3.0%	7.1%	01-Apr-23	
>6 - 25 m3	1.55	1.61	1.66	3.0%	7.1%	01-Apr-23	
>25 - 180 m3	1.72	1.77	1.83	3.0%	6.4%	01-Apr-23	
>180 m3	1.92	2.00	2.06	3.0%	7.1%	01-Apr-23	
<b>Daily Fixed Fee Rates - per meter size</b>							
15 mm	0.30	0.31	0.32	2.9%	6.9%	01-Apr-23	
20 mm	0.45	0.47	0.48	3.1%	7.1%	01-Apr-23	
25 mm	0.75	0.78	0.81	3.6%	7.6%	01-Apr-23	
40 mm	1.51	1.56	1.61	3.0%	6.9%	01-Apr-23	
50 mm	2.41	2.50	2.58	3.0%	6.9%	01-Apr-23	
75 mm	4.51	4.69	4.83	3.0%	7.1%	01-Apr-23	
100 mm	7.53	7.82	8.06	3.0%	7.0%	01-Apr-23	
150 mm	15.06	15.64	16.12	3.0%	7.0%	01-Apr-23	
200 mm	24.10	25.02	25.79	3.0%	7.0%	01-Apr-23	
250 mm	34.65	35.97	37.07	3.0%	7.0%	01-Apr-23	
Compound Meter	1.49	1.55	1.60	3.0%	7.1%	01-Apr-23	
<b>Total Departmental</b>							<b>(4,810)</b>



## **Infrastructure & Water Services Department**

### **2023 Service Area Summary – Stormwater, Laboratory and Municipal Drainage Services**

Stormwater, Laboratory and Municipal Drainage Services are responsible for the operational planning, development and management of the City's stormwater management facilities, fully accredited and licensed laboratory services and municipal drainage services within a regulatory framework.

#### **Programs/Services Offered**

- Operation, maintenance, and inspection of all municipal stormwater management facilities including: 133 wet ponds, 100 dry ponds, 83 underground stormwater treatment facilities
- Operation, maintenance, and inspection of low impact development stormwater infrastructure (commonly referred to as green infrastructure) that supports environmental conservation and protection of water quality
- Operation and maintenance of the City's rain-gauge monitoring network
- Water quality monitoring within Ottawa's major rivers to assess the environmental effects of regulated municipal infrastructure
- Management and maintenance of laboratory license and accreditation requirements and renewals as required through the Ministry of the Environment, Conservation and Parks and the Accreditation Body (Canadian Association of Laboratory)
- Inspection and maintenance, improvement, modification, and construction of all municipal drains to ensure compliance with the *Drainage Act, R.S.O. 1990. c. D. 17*
- Administration and investigation of drainage issues related to City-owned drainage easements and private property, outside the Road Right-of-Way (ROW) in support of the *Site Alteration By-law 2018-164*
- Recovery of costs related to the administration of the *Drainage Act, R.S.O. 1990. c. D. 17* through provincial grants and assessments

City of Ottawa  
Infrastructure & Water Services Department  
Stormwater Services - Operating Resource Requirement  
In Thousands (\$000)

	2021	2022		2023	\$ Change over 2022 Budget
	Actual	Forecast	Budget	Estimate	
<b>Expenditures by Program</b>					
Stormwater Operations	14,817	13,779	13,779	14,049	270
Non Departmental	53,307	63,354	63,354	71,864	8,510
<b>Gross Expenditure</b>	<b>68,124</b>	<b>77,133</b>	<b>77,133</b>	<b>85,913</b>	<b>8,780</b>
Recoveries & Allocations	(3,038)	(3,444)	(3,444)	(3,444)	0
Revenue	(65,573)	(71,689)	(73,689)	(82,469)	(8,780)
<b>Net Requirement</b>	<b>(487)</b>	<b>2,000</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Expenditures by Type</b>					
Salaries, Wages & Benefits	4,977	4,923	4,923	5,071	148
Overtime	5	11	61	63	2
Material & Services	1,542	2,483	2,453	2,553	100
Transfers/Grants/Financial Charges	39,791	49,467	49,467	57,912	8,445
Fleet Costs	238	250	230	250	20
Program Facility Costs	0	0	0	0	0
Other Internal Costs	21,571	19,999	19,999	20,064	65
<b>Gross Expenditures</b>	<b>68,124</b>	<b>77,133</b>	<b>77,133</b>	<b>85,913</b>	<b>8,780</b>
Recoveries & Allocations	(3,038)	(3,444)	(3,444)	(3,444)	0
<b>Net Expenditure</b>	<b>65,086</b>	<b>73,689</b>	<b>73,689</b>	<b>82,469</b>	<b>8,780</b>
<b>Revenues By Type</b>					
Federal	0	0	0	0	0
Provincial	(207)	(145)	(145)	(145)	0
Own Funds	0	0	0	0	0
Fees and Services	(65,366)	(71,544)	(73,544)	(82,324)	(8,780)
Fines	0	0	0	0	0
Other	0	0	0	0	0
<b>Total Revenue</b>	<b>(65,573)</b>	<b>(71,689)</b>	<b>(73,689)</b>	<b>(82,469)</b>	<b>(8,780)</b>
<b>Net Requirement</b>	<b>(487)</b>	<b>2,000</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Full Time Equivalents</b>			<b>44.00</b>	<b>44.00</b>	<b>0.00</b>

City of Ottawa  
Infrastructure & Water Services Department  
Stormwater Services - User Fees

	2021 Rate \$	2022 Rate \$	2023 Rate \$	% Change Over 2022	% Change Over 2021	Effective Date	2023 Revenue (\$000)
<b>Laboratory Services (Tests)</b>							
Alkalinity, PH, Conductivity	11.25	11.48	11.71	2.0%	4.1%	01-Apr-23	
Alkalinity Brinkman (wastewater)	16.93	17.27	17.62	2.0%	4.1%	01-Apr-23	
Biochemical Oxygen Demand	18.51	18.88	19.26	2.0%	4.1%	01-Apr-23	
Carbonaceous Biochemical Demand	18.51	18.88	19.26	2.0%	4.1%	01-Apr-23	
Chloride	13.16	13.42	13.69	2.0%	4.0%	01-Apr-23	
Chemical Oxygen Demand	12.03	12.27	12.52	2.0%	4.1%	01-Apr-23	
Conductivity	11.25	11.48	11.71	2.0%	4.1%	01-Apr-23	
Dissolved Organic Carbon	15.89	16.21	16.53	2.0%	4.0%	01-Apr-23	
E. coli (wastewater)	12.66	12.91	13.17	2.0%	4.0%	01-Apr-23	
Fluoride (SIE)	18.16	18.52	18.89	2.0%	4.0%	01-Apr-23	
Heterotrophic Plate	13.45	13.72	13.99	2.0%	4.0%	01-Apr-23	
Halo Acetic Acid	144.55	147.44	150.39	2.0%	4.0%	01-Apr-23	
ICP-OES Industrial Waste - 28 elements	28.60	29.17	29.75	2.0%	4.0%	01-Apr-23	
ICP-OES Metals Scan - 5 elements	14.81	15.11	15.41	2.0%	4.1%	01-Apr-23	
ICP-OES Metal Scan - 28 elements	24.80	25.30	25.81	2.0%	4.1%	01-Apr-23	
ICP/MS Metal Scan SW/DW - 27 elements	39.97	40.77	41.59	2.0%	4.1%	01-Apr-23	
ICP/MS Lead DW	14.81	15.11	15.41	2.0%	4.1%	01-Apr-23	
Ammonia - Surface/Waste Water	11.29	11.52	11.75	2.0%	4.1%	01-Apr-23	
Ion Chromatography	18.16	18.52	18.89	2.0%	4.0%	01-Apr-23	
Mercury	36.79	37.53	38.28	2.0%	4.1%	01-Apr-23	
Nitrates	13.16	13.42	13.69	2.0%	4.0%	01-Apr-23	
PH	11.25	11.48	11.71	2.0%	4.1%	01-Apr-23	
Reactive Phosphorus	11.29	11.52	11.75	2.0%	4.1%	01-Apr-23	
Soluble Biochemical Oxygen Demand	19.55	19.94	20.34	2.0%	4.0%	01-Apr-23	
Soluble Carbonaceous Biochemical Oxygen Demand	19.55	19.94	20.34	2.0%	4.0%	01-Apr-23	
Soluble Chemical Oxygen Demand	13.07	13.33	13.60	2.0%	4.1%	01-Apr-23	
Specific gravity	23.41	23.88	24.36	2.0%	4.1%	01-Apr-23	
Sulphate	13.16	13.42	13.69	2.0%	4.0%	01-Apr-23	
Soluble Phosphorus	16.35	16.68	17.01	2.0%	4.0%	01-Apr-23	
Soluble Kjeldahl Nitrogen	16.35	16.68	17.01	2.0%	4.0%	01-Apr-23	

City of Ottawa  
Infrastructure & Water Services Department  
Stormwater Services - User Fees

	2021 Rate \$	2022 Rate \$	2023 Rate \$	% Change Over 2022	% Change Over 2021	Effective Date	2023 Revenue (\$000)
<b>Laboratory Services (Tests) cont'd</b>							
Total Coliforms - E-Coli (DC)	11.66	11.89	12.13	2.0%	4.0%	01-Apr-23	
Total Coliforms - E-Coli (PA)	21.95	22.39	22.84	2.0%	4.1%	01-Apr-23	
Total Coliforms - E-Coli (MPN)	22.90	23.36	23.83	2.0%	4.1%	01-Apr-23	
Total Kjeldahl Nitrogen	15.35	15.66	15.97	2.0%	4.0%	01-Apr-23	
Total Phosphorus	15.35	15.66	15.97	2.0%	4.0%	01-Apr-23	
Total Solid - Waste Water	11.84	12.08	12.32	2.0%	4.1%	01-Apr-23	
Total Solid - Solid	11.84	12.08	12.32	2.0%	4.1%	01-Apr-23	
Total Suspended Solid	11.06	11.28	11.51	2.0%	4.1%	01-Apr-23	
Trihalomethane/VOC Full Scan	66.90	68.24	69.60	2.0%	4.0%	01-Apr-23	
Volatile Acids	41.19	42.01	42.85	2.0%	4.0%	01-Apr-23	
Volatile Solids - Waste Water	12.60	12.85	13.11	2.0%	4.0%	01-Apr-23	
Volatile Solids - Solids	12.83	13.09	13.35	2.0%	4.1%	01-Apr-23	
Volatile Suspended Solid (Water)	12.77	13.03	13.29	2.0%	4.1%	01-Apr-23	
Drinking Water Anion (Chloride, fluoride, nitrite and nitrate, sulphate)	18.16	18.52	18.89	2.0%	4.0%	01-Apr-23	
Total Nutrients (Ammonia + Ammonia, Reactive Phosphorus)	12.29	12.54	12.79	2.0%	4.1%	01-Apr-23	
TKN/TP (Total Kjeldahl Nitrogen, Total Phosphorus)	16.35	16.68	17.01	2.0%	4.0%	01-Apr-23	
<b>Increase to rates for various lab tests listed above</b>							

City of Ottawa  
Infrastructure & Water Services Department  
Stormwater Services - User Fees

	2021 Rate \$	2022 Rate \$	2023 Rate \$	% Change Over 2022	% Change Over 2021	Effective Date	2023 Revenue (\$000)
<b>Non Departmental</b>							
<b>Annual Stormwater Service Fees</b>							
<b>Residential Connected</b>							
Urban Single/Semi	154.80	167.30	187.42	12.0%	21.1%	01-Apr-23	
Rural Single/Semi	154.80	167.30	187.42	12.0%	21.1%	01-Apr-23	
Urban Townhouse/Apt	77.40	83.65	93.71	12.0%	21.1%	01-Apr-23	
Rural Townhouse/Apt	77.40	83.65	93.71	12.0%	21.1%	01-Apr-23	
<b>Residential Non-Connected</b>							
Urban Single/Semi	108.36	117.11	131.19	12.0%	21.1%	01-Apr-23	
Rural Single/Semi	77.40	83.65	93.71	12.0%	21.1%	01-Apr-23	
Urban Townhouse/Apt	54.18	58.55	65.60	12.0%	21.1%	01-Apr-23	
Rural Townhouse/Apt	38.70	41.82	46.85	12.0%	21.1%	01-Apr-23	
<b>Industrial, Commercial and Institutional (ICI)</b>							
<b>ICI Connected Urban and Rural</b>							
0 to 300K Assessment	72.53	78.39	87.81	12.0%	21.1%	01-Apr-23	
>300K to 1M Assessment	343.25	370.98	415.58	12.0%	21.1%	01-Apr-23	
>1M to 5M Assessment	1,280.30	1,383.74	1,550.13	12.0%	21.1%	01-Apr-23	
>5M to 20M Assessment	5,612.78	6,066.24	6,795.67	12.0%	21.1%	01-Apr-23	
>20M to 50M Assessment	16,989.02	18,361.58	20,569.46	12.0%	21.1%	01-Apr-23	
>50M to 100M Assessment	41,002.82	44,315.49	49,644.18	12.0%	21.1%	01-Apr-23	
>100M to 150M Assessment	68,778.77	74,335.48	83,273.91	12.0%	21.1%	01-Apr-23	
>150M Assessment	145,649.67	157,416.88	176,345.39	12.0%	21.1%	01-Apr-23	

City of Ottawa  
Infrastructure & Water Services Department  
Stormwater Services - User Fees

	2021 Rate \$	2022 Rate \$	2023 Rate \$	% Change Over 2022	% Change Over 2021	Effective Date	2023 Revenue (\$000)
<b>ICI Non-Connected - Urban</b>							
0 to 300K Assessment	72.53	78.39	87.81	12.0%	21.1%	01-Apr-23	
>300K to 1M Assessment	343.25	370.98	415.58	12.0%	21.1%	01-Apr-23	
>1M to 5M Assessment	1,280.30	1,383.74	1,550.13	12.0%	21.1%	01-Apr-23	
>5M to 20M Assessment	5,612.78	6,066.24	6,795.67	12.0%	21.1%	01-Apr-23	
>20M to 50M Assessment	16,989.02	18,361.58	20,569.46	12.0%	21.1%	01-Apr-23	
>50M to 100M Assessment	41,002.82	44,315.49	49,644.18	12.0%	21.1%	01-Apr-23	
>100M to 150M Assessment	68,778.77	74,335.48	83,273.91	12.0%	21.1%	01-Apr-23	
>150M Assessment	145,649.67	157,416.88	176,345.39	12.0%	21.1%	01-Apr-23	
<b>ICI Non-Connected - Rural</b>							
0 to 300K Assessment	50.77	54.87	61.47	12.0%	21.1%	01-Apr-23	
>300K to 1M Assessment	240.27	259.68	290.91	12.0%	21.1%	01-Apr-23	
>1M to 5M Assessment	896.21	968.62	1,085.09	12.0%	21.1%	01-Apr-23	
>5M to 20M Assessment	3,928.94	4,246.37	4,756.97	12.0%	21.1%	01-Apr-23	
>20M to 50M Assessment	11,892.31	12,853.11	14,398.62	12.0%	21.1%	01-Apr-23	
>50M to 100M Assessment	28,701.98	31,020.84	34,750.93	12.0%	21.1%	01-Apr-23	
>100M to 150M Assessment	48,145.14	52,034.84	58,291.74	12.0%	21.1%	01-Apr-23	
>150M Assessment	101,954.77	110,191.82	123,441.77	12.0%	21.1%	01-Apr-23	
<b>Total Departmental</b>							<b>(8,780)</b>

City Of Ottawa  
2023 Draft Capital Budget  
Environment and Climate Change Committee - Rate  
Capital Funding Summary

Project Description	Revenues	Rate Supported	Develop. Charges	Rate Supported Debt	Develop. Charges Debt	Grand Total
Drinking Water Services						
Renewal of City Assets						
906664 Hurdman Bridge PS Renewal	0	4,650	0	0	0	4,650
908076 Large Water Meters Changeout Program	0	300	0	0	0	300
908908 Small Water Meters Changeout Program	0	1,650	0	0	0	1,650
908909 Advanced Metering Infra. (AMI) Changeout	0	2,000	0	1,000	0	3,000
908995 Advanced Metering Infra. (AMI) Software	0	650	0	0	0	650
908996 Meter Service Mobility	0	150	0	0	0	150
909208 Lemieux & Britannia G2 Generator Constr	0	7,875	0	0	0	7,875
909560 Britannia LLP & HLP Motors and Drives	0	4,775	0	0	0	4,775
909573 DWS SCADA Network Upgrade	0	282	0	0	0	282
909574 DWS SCADA HMI Upgrade	0	1,129	0	0	0	1,129
909648 Lemieux Protective Relays Upgrades	0	1,000	0	0	0	1,000
909649 WTP Surge Protection Improvements	0	200	0	0	0	200
909930 Water & Sewer Utility Billing System	0	800	0	0	0	800
910006 Shadow Ridge Wells Rehab	0	4,125	0	0	0	4,125
910260 Wash Water Tank and Pump Room Rehab	0	555	0	0	0	555
910385 Well System Inspection and Rehab	0	300	0	0	0	300
910668 Lem & Brit Operator Room Ergonomics	0	589	0	0	0	589
910810 2023 Buildings-Water Services	0	100	0	0	0	100
910855 2023 Ops Cond Assess-Critical Sys Links	0	1,875	0	0	0	1,875
910858 Water Treatment Rehab 2023	0	3,856	0	2,000	0	5,856
910872 Water Storage Tanks & Reservoirs 2023	0	649	0	0	0	649
910884 DWS Capitalized Maintenance 2023	0	400	0	0	0	400
910893 York St - Byward Market Sq	0	470	0	0	0	470
910894 Prince of Wales (Green Valley - DE)	0	530	0	0	0	530
910895 2023 Water System Improvements	0	3,500	0	4,000	0	7,500
910896 2023 WM Transmission/Distribution Rehab	0	1,500	0	4,000	0	5,500
<b>Renewal of City Assets Total</b>	<b>0</b>	<b>43,910</b>	<b>0</b>	<b>11,000</b>	<b>0</b>	<b>54,910</b>



City Of Ottawa  
2023 Draft Capital Budget  
Environment and Climate Change Committee - Rate  
Capital Funding Summary

Project Description	Revenues	Rate Supported	Develop. Charges	Rate Supported Debt	Develop. Charges Debt	Grand Total
Growth						
900631 Carlington Heights Pumping Stn Expansion	0	2,285	889	0	0	3,174
901144 Glen Cairn Reservoir Expansion	0	35	319	0	0	354
902206 Ottawa South Pumping Station Upgrade	0	1,400	1,000	0	457	2,857
904972 Glen Cairn PS Upgrade	0	132	1,190	0	0	1,322
910050 Manotick Supply Watermain - Phase 2	0	2,539	2,751	0	0	5,290
910900 2023 Off Site Reliability Links	0	17	153	0	0	170
910903 2023 Water & Wastewater Studies	0	106	423	0	0	529
<b>Growth Total</b>	<b>0</b>	<b>6,514</b>	<b>6,725</b>	<b>0</b>	<b>457</b>	<b>13,696</b>
Regulatory						
910860 Water Efficiency 2023	0	150	0	0	0	150
<b>Regulatory Total</b>	<b>0</b>	<b>150</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>150</b>
<b>Drinking Water Services Total</b>	<b>0</b>	<b>50,574</b>	<b>6,725</b>	<b>11,000</b>	<b>457</b>	<b>68,756</b>
Integrated Water & Wastewater						
Renewal of City Assets						
910436 Riverside Dr Sewer Industrial-Transitway	0	2,090	0	90	0	2,180
910887 2023 Easement Agreements Updates	0	3,000	0	2,000	0	5,000
910888 2023 Hydraulic Structures	0	500	0	0	0	500
910889 2023 Sewer Repairs / Improvements	0	3,000	0	4,000	0	7,000
910890 2023 Sewer Trenchless Rehab	0	1,000	0	2,000	0	3,000
910891 2023 Sewer&Watermain Inspec&Data Mngmt	0	1,400	0	0	0	1,400
<b>Renewal of City Assets Total</b>	<b>0</b>	<b>10,990</b>	<b>0</b>	<b>8,090</b>	<b>0</b>	<b>19,080</b>
<b>Integrated Water &amp; Wastewater Total</b>	<b>0</b>	<b>10,990</b>	<b>0</b>	<b>8,090</b>	<b>0</b>	<b>19,080</b>

City Of Ottawa  
2023 Draft Capital Budget  
Environment and Climate Change Committee - Rate  
Capital Funding Summary

Project Description	Revenues	Rate Supported	Develop. Charges	Rate Supported Debt	Develop. Charges Debt	Grand Total
<b>Stormwater Services</b>						
Renewal of City Assets						
908618 CWWF Convent Glen North Storm Sewer	0	2,500	0	0	0	2,500
909356 2020 Stormwater Management Retrofit	0	558	0	500	0	1,058
909748 Mud Creek Stream Renewal	0	3,521	0	0	0	3,521
910448 2022 Drainage Culverts - CW	0	4,864	0	4,000	0	8,864
910817 2023 Flood Plain Mapping	0	382	0	200	0	582
910822 2023 Drainage Culverts - CW	0	1,717	0	2,000	0	3,717
910826 2023 Drainage Culverts - Other	0	527	0	0	0	527
910842 2023 Culverts Scoping Pre/Post Eng.	0	700	0	0	0	700
910843 2023 Drainage Culverts - Site-Specific	0	500	0	1,000	0	1,500
910844 2023 Drainage Culvert - Site Spec-Other	0	150	0	0	0	150
910845 2023 Drainage Culverts Assessment	0	300	0	0	0	300
910867 Stormwater Mgmt: Rehab&Enviro Compl 2023	0	3,700	0	1,000	0	4,700
910873 Linear Storm System Improvements 2023	0	2,700	0	800	0	3,500
910897 2023 Storm & Surface Water Rehab	0	500	0	1,000	0	1,500
910898 2023 Ditch Alterations	0	50	0	0	0	50
<b>Renewal of City Assets Total</b>	<b>0</b>	<b>22,668</b>	<b>0</b>	<b>10,500</b>	<b>0</b>	<b>33,168</b>
<b>Growth</b>						
909730 2020 Stormwater Master Planning	0	344	344	0	0	688
<b>Growth Total</b>	<b>0</b>	<b>344</b>	<b>344</b>	<b>0</b>	<b>0</b>	<b>688</b>
<b>Regulatory</b>						
907718 Kizell Municipal Drain	750	0	0	0	0	750
908817 McKinnons Creek Municipal Drain	1,500	0	0	0	0	1,500
909001 Hobbs Municipal Drain	750	0	0	0	0	750
909216 Cassidy 2018 Municipal Drain	550	50	0	0	0	600
909305 Buckles Municipal Drain	260	40	0	0	0	300

City Of Ottawa  
2023 Draft Capital Budget  
Environment and Climate Change Committee - Rate  
Capital Funding Summary

Project Description	Revenues	Rate Supported	Develop. Charges	Rate Supported Debt	Develop. Charges Debt	Grand Total
909898 Biltmore Extension Municipal Drain	360	40	0	0	0	400
909960 Johnston Municipal Drain	80	0	0	0	0	80
909961 Dillon-Wallace Municipal Drain	60	0	0	0	0	60
910905 Municipal Drain Improvements - 2023	540	70	0	0	0	610
<b>Regulatory Total</b>	<b>4,850</b>	<b>200</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5,050</b>
Service Enhancements						
910398 Shirley's Brook Upgrade (KNUFA)	0	1,058	0	0	0	1,058
<b>Service Enhancements Total</b>	<b>0</b>	<b>1,058</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,058</b>
<b>Stormwater Services Total</b>	<b>4,850</b>	<b>24,270</b>	<b>344</b>	<b>10,500</b>	<b>0</b>	<b>39,964</b>
Wastewater Services						
Renewal of City Assets						
908250 Infrastructure Planning Information Mgmt	0	582	0	0	0	582
908892 ROPEC Activated Sludge Screws Overhaul	0	1,630	0	0	0	1,630
909158 ROPEC RSPS Motor & Drive Rehab.	0	24,900	0	0	0	24,900
909226 Flow Through Station Rehabs	0	700	0	0	0	700
909745 Acres Road PS Phase 1 Renewal	0	874	0	0	0	874
909906 Primary Clarifiers Inlet Gate Replacemen	0	280	0	0	0	280
909972 RCAF and RCMP PS Rehabilitation	0	4,000	0	0	0	4,000
910774 St Joseph PS Reliability Upgrade	0	400	0	0	0	400
910892 2023 ORAP Wet Weather IMP	0	250	50	700	0	1,000
910904 2023 Pump Stations Capacity Renewal	0	2,559	0	50	0	2,609
910909 New Vehicles Wastewater 2023	0	250	0	0	0	250
910910 Collection System Condition Assess. 2023	0	1,000	0	0	0	1,000
910914 Sewage Pumping Station Rehab Prog 2023	0	6,458	0	5,000	0	11,458
910915 ROPEC - Sewage Treatment Rehab Prog 2023	0	12	0	28,700	0	28,712
910917 Wastewater Drainage Roofing 2023	0	347	0	0	0	347

City Of Ottawa  
2023 Draft Capital Budget  
Environment and Climate Change Committee - Rate  
Capital Funding Summary

Project Description	Revenues	Rate Supported	Develop. Charges	Rate Supported Debt	Develop. Charges Debt	Grand Total
910918 ROPEC - SCADA Rehab. & Upgrades 2023	0	1,000	0	0	0	1,000
910919 Lab Equipment Replacement 2023	0	170	0	0	0	170
910920 Linear Sewage System Improvements 2023	0	500	0	500	0	1,000
910921 Flow Monitoring System Rehab 2023	0	200	0	0	0	200
910923 ROPEC Capitalized Maintenance 2023	0	1,000	0	0	0	1,000
910924 Waste Water Collection Maintenance 2023	0	6,500	0	500	0	7,000
911029 ROPEC HVAC Rehab	0	1,600	0	0	0	1,600
<b>Renewal of City Assets Total</b>	<b>0</b>	<b>55,212</b>	<b>50</b>	<b>35,450</b>	<b>0</b>	<b>90,712</b>
<b>Growth</b>						
907463 Stittsville PS Gravity Connect	0	1,136	487	0	0	1,623
909992 Richmond Pump Station	0	1,466	1,866	0	0	3,332
910076 Carp Wastewater PS Upgrade/Overflow	476	582	0	0	0	1,058
910906 2023 Pump Stations Capacity Increase	0	0	5,120	0	0	5,120
<b>Growth Total</b>	<b>476</b>	<b>3,184</b>	<b>7,473</b>	<b>0</b>	<b>0</b>	<b>11,133</b>
<b>Regulatory</b>						
908874 ROPEC Fire Damper Rehab	0	610	0	0	0	610
<b>Regulatory Total</b>	<b>0</b>	<b>610</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>610</b>
<b>Wastewater Services Total</b>	<b>476</b>	<b>59,006</b>	<b>7,523</b>	<b>35,450</b>	<b>0</b>	<b>102,455</b>
<b>Environment*</b>						
<b>Renewal of City Assets</b>						
910731 Excess Soils Program	0	120	0	0	0	120
<b>Renewal of City Assets Total</b>	<b>0</b>	<b>120</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>120</b>
<b>Environment* Total</b>	<b>0</b>	<b>120</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>120</b>

City Of Ottawa  
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Project Description	Revenues	Rate Supported	Develop. Charges	Rate Supported Debt	Develop. Charges Debt	Grand Total
Information Technology*						
Renewal of City Assets						
910789 ITS Managed - 2023	0	1,000	0	0	0	1,000
<b>Renewal of City Assets Total</b>	<b>0</b>	<b>1,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,000</b>
<b>Information Technology* Total</b>	<b>0</b>	<b>1,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,000</b>
Integrated Roads, Water & Wastewater*						
Renewal of City Assets						
906735 Bank St (Riverside-Ledbury)	0	11,200	80	5,000	0	16,280
906900 Main Greenfield Echo Concord et al	0	5,760	50	0	0	5,810
908139 Montreal Rd (N River Rd-St Laurent Blvd)	0	230	0	0	0	230
908140 City Centre Ave & Elm St	0	5,100	70	0	0	5,170
908141 ORAP Albert St-Bronson Ave-Slater St	0	1,110	10	100	0	1,220
908574 Grove Ave & Grosvenor	0	3,930	0	3,500	0	7,430
908581 Valley Dr Storm Sewer	0	5,850	0	0	0	5,850
909394 Arch - Canterbury - Plesser	0	9,470	0	3,500	0	12,970
909402 Caroline Ave - Huron Ave N	0	9,750	0	0	0	9,750
909408 Monk - Oakland - Wilton	0	10,130	0	0	0	10,130
909731 Piccadilly Ave (Wellington - Bassett)	0	2,600	0	0	0	2,600
909732 Maclaren St - Lyon St	0	9,080	0	0	0	9,080
909733 Pretoria Ave (Metcalf-Bank)	0	2,700	0	0	0	2,700
910827 2023 Integrated Scoping Pre/Post Eng	0	1,053	0	400	0	1,453
910828 2023 Road Resurfacing - CW	0	1,404	0	1,200	0	2,604
910829 2023 Comprehensive Asset Management	0	687	0	0	0	687
910830 Taunton PI (LI) (Davidson - DeadEnd)	0	240	0	0	0	240
910831 Merivale Rd (Anna Ave - Carling Ave)	0	1,440	0	0	0	1,440
910832 Clarey - Regent - Morris - Monk et al.	0	1,800	0	0	0	1,800
910833 Rue de L'Eglise (Montreal - McArthur)	0	1,550	0	0	0	1,550
910834 Jeffery - Arundel - Farnham et al.	0	1,550	0	0	0	1,550
910835 Harrold - Anna - Veteran	0	1,550	0	0	0	1,550
910836 Java - Iona - Calrendon - Kenora	0	1,800	0	0	0	1,800

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Project Description	Revenues	Rate Supported	Develop. Charges	Rate Supported Debt	Develop. Charges Debt	Grand Total
910837 Athlone - Lincoln - Edgewood - Eden	0	1,550	0	0	0	1,550
910838 Bay (Florence - Somerset)	0	650	0	0	0	650
910839 Cameron Ave - Seneca St	0	1,710	0	0	0	1,710
910840 Melbourne - Ravenhill	0	1,550	0	0	0	1,550
910841 Montfort - Alfred - Granville	0	1,470	0	0	0	1,470
<b>Renewal of City Assets Total</b>	<b>0</b>	<b>96,914</b>	<b>210</b>	<b>13,700</b>	<b>0</b>	<b>110,824</b>
<b>Integrated Roads, Water &amp; Wastewater* Total</b>	<b>0</b>	<b>96,914</b>	<b>210</b>	<b>13,700</b>	<b>0</b>	<b>110,824</b>
<b>Transportation Services*</b>						
Renewal of City Assets						
911023 2023 Aerial Mapping Services	0	672	0	0	0	672
<b>Renewal of City Assets Total</b>	<b>0</b>	<b>672</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>672</b>
<b>Transportation Services* Total</b>	<b>0</b>	<b>672</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>672</b>
<b>Grand Total</b>	<b>5,326</b>	<b>243,546</b>	<b>14,802</b>	<b>78,740</b>	<b>457</b>	<b>342,871</b>
*Includes the Rate portion only for information purposes.						

City of Ottawa  
Infrastructure & Water Services Department  
Drinking Water Services - Operating Resource Requirement Analysis  
In Thousands (\$000)

	2022 Baseline			2023 Adjustments						2023	\$ Change over 2022 Budget
	Forecast	Budget	Adj. to Base Budget	Maintain Services	Provincial Legislated	Growth	COVID-19	Service Initiatives / Savings	User Fees & Revenues	Estimate	
<b>Expenditures by Program</b>											
Facilities and Treatment	39,739	40,039	0	2,700	400	0	0	(400)	0	42,739	2,700
Linear and Customer Service	36,973	38,423	0	385	130	0	0	0	0	38,938	515
Non Departmental	134,708	134,708	0	790	0	50	0	0	0	135,548	840
<b>Gross Expenditure</b>	<b>211,420</b>	<b>213,170</b>	<b>0</b>	<b>3,875</b>	<b>530</b>	<b>50</b>	<b>0</b>	<b>(400)</b>	<b>0</b>	<b>217,225</b>	<b>4,055</b>
Recoveries & Allocations	(14,577)	(13,827)	0	0	0	0	0	0	0	(13,827)	0
Revenue	(198,743)	(199,343)	0	0	0	0	0	0	(4,055)	(203,398)	(4,055)
<b>Net Requirement</b>	<b>(1,900)</b>	<b>0</b>	<b>0</b>	<b>3,875</b>	<b>530</b>	<b>50</b>	<b>0</b>	<b>(400)</b>	<b>(4,055)</b>	<b>0</b>	<b>0</b>
<b>Expenditures by Type</b>											
Salaries, Wages & Benefits	28,743	31,543	0	550	530	0	0	0	0	32,623	1,080
Overtime	1,447	1,997	0	0	0	0	0	0	0	1,997	0
Material & Services	22,350	20,750	0	2,200	0	0	0	(400)	0	22,550	1,800
Transfers/Grants/Financial Charges	106,029	106,029	0	405	0	0	0	0	0	106,434	405
Fleet Costs	3,381	3,381	0	260	0	0	0	0	0	3,641	260
Program Facility Costs	0	0	0	0	0	0	0	0	0	0	0
Other Internal Costs	49,470	49,470	0	460	0	50	0	0	0	49,980	510
<b>Gross Expenditures</b>	<b>211,420</b>	<b>213,170</b>	<b>0</b>	<b>3,875</b>	<b>530</b>	<b>50</b>	<b>0</b>	<b>(400)</b>	<b>0</b>	<b>217,225</b>	<b>4,055</b>
Recoveries & Allocations	(14,577)	(13,827)	0	0	0	0	0	0	0	(13,827)	0
<b>Net Expenditure</b>	<b>196,843</b>	<b>199,343</b>	<b>0</b>	<b>3,875</b>	<b>530</b>	<b>50</b>	<b>0</b>	<b>(400)</b>	<b>0</b>	<b>203,398</b>	<b>4,055</b>
<b>Percent of 2023 Net Expenditure Budget</b>			<b>0.0%</b>	<b>1.9%</b>	<b>0.3%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>-0.2%</b>	<b>0.0%</b>	<b>2.0%</b>	



City of Ottawa  
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	2022 Baseline			2023 Adjustments						2023	\$ Change over 2022 Budget
	Forecast	Budget	Adj. to Base Budget	Maintain Services	Provincial Legislated	Growth	COVID-19	Service Initiatives / Savings	User Fees & Revenues	Estimate	
<b>Revenues By Type</b>											
Federal	0	0	0	0	0	0	0	0	0	0	0
Provincial	0	0	0	0	0	0	0	0	0	0	0
Own Funds	(650)	(650)	0	0	0	0	0	0	0	(650)	0
Fees and Services	(198,093)	(198,693)	0	0	0	0	0	0	(4,055)	(202,748)	(4,055)
Fines	0	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0
<b>Total Revenue</b>	<b>(198,743)</b>	<b>(199,343)</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>(4,055)</b>	<b>(203,398)</b>	<b>(4,055)</b>
<b>Percent of 2023 Revenue Budget</b>			<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>2.0%</b>	<b>2.0%</b>	
<b>Net Requirement</b>	<b>(1,900)</b>	<b>0</b>	<b>0</b>	<b>3,875</b>	<b>530</b>	<b>50</b>	<b>0</b>	<b>(400)</b>	<b>(4,055)</b>	<b>0</b>	<b>0</b>
<b>Percent of 2023 Net Requirement Budget</b>			<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	
<b>Full Time Equivalents (FTEs)</b>		293.86	0.00	0.00	6.00	0.00	0.00	0.00	0.00	<b>299.86</b>	<b>6.00</b>
<b>Percent of 2023 FTEs</b>			<b>0.0%</b>	<b>0.0%</b>	<b>2.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>2.0%</b>	

City of Ottawa  
Infrastructure & Water Services Department  
Drinking Water Services - Operating Resource Requirement Explanatory Notes  
In Thousands (\$000)

	Surplus / (Deficit)			
2022 Forecast vs. Budget Variance Explanation	Expense	Revenue	Net	
Surplus mainly due to vacancies, fewer emergency repairs, and increased cost recoveries, offset with increased chemical costs. Deficit in water bill revenues due to shift in consumption from the higher Tier 4 rate to the lower Tier 2 rate due to residents staying home more and reduced consumption by ICI customers and an increase in debt servicing costs.	2,500	(600)	1,900	
Total Surplus / (Deficit)	2,500	(600)	1,900	
	Increase / (Decrease)			
2023 Pressure Category / Explanation	Expense	Revenue	Net 2023 Changes	FTE Impact
Maintain Services				
All programs include an adjustment for potential 2023 cost of living, increments and benefit adjustments.	550	0	550	0.00
Increase in operational costs related to inflation on supplies, chemicals, and service contracts.	2,200	0	2,200	0.00
Increase in Fleet costs related to inflation on compensation contracts, parts, fuel, contribution to capital reserve and maintenance.	260	0	260	0.00
Increase in Sewer Discharge costs for Water Purification Plant discharges to the wastewater collection system and treatment at ROPEC.	75	0	75	0.00
Non Departmental				
Increase in debt servicing costs.	105	0	105	0.00
Increase in Inter Departmental Admin and Direct Charges overhead costs due to COLA increases.	385	0	385	0.00
Increase in the contribution to the water capital reserve fund.	300	0	300	0.00
Total Maintain Services	3,875	0	3,875	0.00

**City of Ottawa**  
**Infrastructure & Water Services Department**  
**Drinking Water Services - Operating Resource Requirement Explanatory Notes**  
**In Thousands (\$000)**

2023 Pressure Category / Explanation	Increase / (Decrease)			
	Expense	Revenue	Net 2023 Changes	FTE Impact
<b>Provincial Legislated</b>				
Additional resources (1 FTE and 3 students) to respond to mandatory timelines related to the legislative requirements for Bill 93, ON1Call By-Law.	130	0	130	2.00
Additional resources required to deliver technical training and support to meet departmental licensing service standards, legislative and mandatory requirements.	200	0	200	2.00
Additional resources required to deliver health and safety support and quality management systems in accordance with Provincially regulated requirements.	200	0	200	2.00
<b>Total Provincial Legislated</b>	<b>530</b>	<b>0</b>	<b>530</b>	<b>6.00</b>
	Increase / (Decrease)			
2023 Pressure Category / Explanation	Expense	Revenue	Net 2023 Changes	FTE Impact
<b>Growth</b>				
<b>Non Departmental</b>				
Increase in Direct Charges from Revenue to fund an FTE to support Revenue Water accounts.	50	0	50	0.00
<b>Total Growth</b>	<b>50</b>	<b>0</b>	<b>50</b>	<b>0.00</b>
	Increase / (Decrease)			
2023 Pressure Category / Explanation	Expense	Revenue	Net 2023 Changes	FTE Impact
<b>Service Initiatives / Savings</b>				
Hydro savings as a result of operational efficiencies.	(400)	0	(400)	0.00
<b>Total Service Initiatives / Savings</b>	<b>(400)</b>	<b>0</b>	<b>(400)</b>	<b>0.00</b>
	Increase / (Decrease)			
2023 Pressure Category / Explanation	Expense	Revenue	Net 2023 Changes	FTE Impact
<b>User Fees &amp; Revenues</b>				
See following user fee schedule for details on the specific rates.	0	(4,055)	(4,055)	0.00
<b>Total User Fees &amp; Revenues</b>	<b>0</b>	<b>(4,055)</b>	<b>(4,055)</b>	<b>0.00</b>
<b>Total Budget Changes</b>	<b>4,055</b>	<b>(4,055)</b>	<b>0</b>	<b>6.00</b>

City of Ottawa  
Infrastructure & Water Services Department  
Wastewater Services - Operating Resource Requirement Analysis  
In Thousands (\$000)

	2022 Baseline			2023 Adjustments						2023	\$ Change over 2022 Budget
	Forecast	Budget	Adj. to Base Budget	Maintain Services	Provincial Legislated	Growth	COVID-19	Service Initiatives / Savings	User Fees & Revenues	Estimate	
<b>Expenditures by Program</b>											
Facilities and Treatment	32,680	32,380	0	1,580	400	0	0	0	0	34,360	1,980
Linear and Customer Service	26,462	25,512	0	925	0	0	0	0	0	26,437	925
Non Departmental	125,253	125,253	0	1,930	0	50	0	0	0	127,233	1,980
<b>Gross Expenditure</b>	<b>184,395</b>	<b>183,145</b>	<b>0</b>	<b>4,435</b>	<b>400</b>	<b>50</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>188,030</b>	<b>4,885</b>
Recoveries & Allocations	(14,355)	(13,905)	0	(75)	0	0	0	0	0	(13,980)	(75)
Revenue	(167,740)	(169,240)	0	0	0	0	0	0	(4,810)	(174,050)	(4,810)
<b>Net Requirement</b>	<b>2,300</b>	<b>0</b>	<b>0</b>	<b>4,360</b>	<b>400</b>	<b>50</b>	<b>0</b>	<b>0</b>	<b>(4,810)</b>	<b>0</b>	<b>0</b>
<b>Expenditures by Type</b>											
Salaries, Wages & Benefits	25,198	24,498	0	1,114	400	0	0	0	0	26,012	1,514
Overtime	886	936	0	31	0	0	0	0	0	967	31
Material & Services	26,593	26,393	0	900	0	0	0	0	0	27,293	900
Transfers/Grants/Financial Charges	99,270	99,270	0	805	0	0	0	0	0	100,075	805
Fleet Costs	1,954	1,554	0	460	0	0	0	0	0	2,014	460
Program Facility Costs	0	0	0	0	0	0	0	0	0	0	0
Other Internal Costs	30,494	30,494	0	1,125	0	50	0	0	0	31,669	1,175
<b>Gross Expenditures</b>	<b>184,395</b>	<b>183,145</b>	<b>0</b>	<b>4,435</b>	<b>400</b>	<b>50</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>188,030</b>	<b>4,885</b>
Recoveries & Allocations	(14,355)	(13,905)	0	(75)	0	0	0	0	0	(13,980)	(75)
<b>Net Expenditure</b>	<b>170,040</b>	<b>169,240</b>	<b>0</b>	<b>4,360</b>	<b>400</b>	<b>50</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>174,050</b>	<b>4,810</b>
<b>Percent of 2023 Net Expenditure Budget</b>			<b>0.0%</b>	<b>2.6%</b>	<b>0.2%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>2.8%</b>	

City of Ottawa  
Infrastructure & Water Services Department  
Wastewater Services - Operating Resource Requirement Analysis  
In Thousands (\$000)

	2022 Baseline			2023 Adjustments						2023	\$ Change over 2022 Budget
	Forecast	Budget	Adj. to Base Budget	Maintain Services	Provincial Legislated	Growth	COVID-19	Service Initiatives / Savings	User Fees & Revenues	Estimate	
<b>Revenues By Type</b>											
Federal	0	0	0	0	0	0	0	0	0	0	0
Provincial	0	0	0	0	0	0	0	0	0	0	0
Own Funds	(4,725)	(4,725)	0	0	0	0	0	0	0	(4,725)	0
Fees and Services	(163,015)	(164,515)	0	0	0	0	0	0	(4,810)	(169,325)	(4,810)
Fines	0	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0
<b>Total Revenue</b>	<b>(167,740)</b>	<b>(169,240)</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>(4,810)</b>	<b>(174,050)</b>	<b>(4,810)</b>
<b>Percent of 2023 Revenue Budget</b>			<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>2.8%</b>	<b>2.8%</b>	
<b>Net Requirement</b>	<b>2,300</b>	<b>0</b>	<b>0</b>	<b>4,360</b>	<b>400</b>	<b>50</b>	<b>0</b>	<b>0</b>	<b>(4,810)</b>	<b>0</b>	<b>0</b>
<b>Percent of 2023 Net Requirement Budget</b>			<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	
<b>Full Time Equivalents (FTEs)</b>		215.50	0.00	0.00	4.00	0.00	0.00	0.00	0.00	<b>219.50</b>	<b>4.00</b>
<b>Percent of 2023 FTEs</b>			<b>0.0%</b>	<b>0.0%</b>	<b>1.9%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>1.9%</b>	

City of Ottawa  
Infrastructure & Water Services Department  
Wastewater Services - Operating Resource Requirement Explanatory Notes  
In Thousands (\$000)

in thousands (\$000)

2022 Forecast vs. Budget Variance Explanation	Surplus / (Deficit)			
	Expense	Revenue	Net	
Deficit mainly due to increased sewer cleaning and catch basin maintenance activities as well as reduced water bill wastewater revenues due to shift in consumption from Tier 4 to Tier 2.	(800)	(1,500)	(2,300)	
Total Surplus / (Deficit)	(800)	(1,500)	(2,300)	
	Increase / (Decrease)			
2023 Pressure Category / Explanation	Expense	Revenue	Net 2023 Changes	FTE Impact
Maintain Services				
All programs include an adjustment for potential 2023 cost of living, increments and benefit adjustments.	1,145	0	1,145	0.00
Increase in operational costs related to inflation on supplies, chemicals, and service contracts.	900	0	900	0.00
Increase in Fleet costs related to inflation on compensation contracts, parts, fuel, contribution to capital reserve and maintenance.	460	0	460	0.00
Increase in recoveries from Drinking Water Services for water purification plant discharge to the wastewater collection system.	(75)	0	(75)	0.00
Non Departmental				
Increase in Inter Departmental Admin and Direct Charges overhead costs due to COLA increases.	175	0	175	0.00
Increase in Inter Departmental Admin and Direct Charges overhead costs due to inflationary increases.	950	0	950	0.00
Increase in the contribution to the sewer capital reserve fund.	805	0	805	0.00
Total Maintain Services	4,360	0	4,360	0.00

City of Ottawa  
Infrastructure & Water Services Department  
Wastewater Services - Operating Resource Requirement Explanatory Notes  
In Thousands (\$000)

2022 Pressure Category / Explanation	Increase / (Decrease)			
	Expense	Revenue	Net 2022 Changes	FTE Impact
<b>Provincial Legislated</b>				
Additional resources required to deliver technical training and support to meet departmental licensing service standards, legislative and mandatory requirements.	200	0	200	2.00
Additional resources required to deliver health and safety support and quality management systems in accordance with Provincially regulated requirements.	200	0	200	2.00
<b>Total Provincial Legislated</b>	<b>400</b>	<b>0</b>	<b>400</b>	<b>4.00</b>
2023 Pressure Category / Explanation	Increase / (Decrease)			
	Expense	Revenue	Net 2023 Changes	FTE Impact
<b>Growth</b>				
<b>Non Departmental</b>				
Increase in Direct Charges from Revenue to fund an FTE to support Revenue Wastewater accounts.	50	0	50	0.00
<b>Total Growth</b>	<b>50</b>	<b>0</b>	<b>50</b>	<b>0.00</b>
2023 Pressure Category / Explanation	Increase / (Decrease)			
	Expense	Revenue	Net 2023 Changes	FTE Impact
<b>User Fees &amp; Revenues</b>				
See following user fee schedule for details on the specific rates.	0	(4,810)	(4,810)	0.00
<b>Total User Fees &amp; Revenues</b>	<b>0</b>	<b>(4,810)</b>	<b>(4,810)</b>	<b>0.00</b>
<b>Total Budget Changes</b>	<b>4,810</b>	<b>(4,810)</b>	<b>0</b>	<b>4.00</b>

City of Ottawa  
Infrastructure & Water Services Department  
Stormwater Services - Operating Resource Requirement Analysis  
In Thousands (\$000)

	2022 Baseline			2023 Adjustments						2023	\$ Change over 2022 Budget
	Forecast	Budget	Adj. to Base Budget	Maintain Services	Provincial Legislated	Growth	COVID-19	Service Initiatives / Savings	User Fees & Revenues	Estimate	
<b>Expenditures by Program</b>											
Stormwater Operations	13,779	13,779	0	270	0	0	0	0	0	14,049	270
Non Departmental	63,354	63,354	0	8,510	0	0	0	0	0	71,864	8,510
<b>Gross Expenditure</b>	<b>77,133</b>	<b>77,133</b>	<b>0</b>	<b>8,780</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>85,913</b>	<b>8,780</b>
Recoveries & Allocations	(3,444)	(3,444)	0	0	0	0	0	0	0	(3,444)	0
Revenue	(71,689)	(73,689)	0	0	0	0	0	0	(8,780)	(82,469)	(8,780)
<b>Net Requirement</b>	<b>2,000</b>	<b>0</b>	<b>0</b>	<b>8,780</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>(8,780)</b>	<b>0</b>	<b>0</b>
<b>Expenditures by Type</b>											
Salaries, Wages & Benefits	4,923	4,923	0	148	0	0	0	0	0	5,071	148
Overtime	11	61	0	2	0	0	0	0	0	63	2
Material & Services	2,483	2,453	0	100	0	0	0	0	0	2,553	100
Transfers/Grants/Financial Charges	49,467	49,467	0	8,445	0	0	0	0	0	57,912	8,445
Fleet Costs	250	230	0	20	0	0	0	0	0	250	20
Program Facility Costs	0	0	0	0	0	0	0	0	0	0	0
Other Internal Costs	19,999	19,999	0	65	0	0	0	0	0	20,064	65
<b>Gross Expenditures</b>	<b>77,133</b>	<b>77,133</b>	<b>0</b>	<b>8,780</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>85,913</b>	<b>8,780</b>
Recoveries & Allocations	(3,444)	(3,444)	0	0	0	0	0	0	0	(3,444)	0
<b>Net Expenditure</b>	<b>73,689</b>	<b>73,689</b>	<b>0</b>	<b>8,780</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>82,469</b>	<b>8,780</b>
<b>Percent of 2023 Net Expenditure Budget</b>			<b>0.0%</b>	<b>11.9%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>11.9%</b>	



City of Ottawa  
Infrastructure & Water Services Department  
Stormwater Services - Operating Resource Requirement Analysis  
In Thousands (\$000)

	2022 Baseline			2023 Adjustments						2023	\$ Change over 2022 Budget
	Forecast	Budget	Adj. to Base Budget	Maintain Services	Provincial Legislated	Growth	COVID-19	Service Initiatives / Savings	User Fees & Revenues	Estimate	
<b>Revenues By Type</b>											
Federal	0	0	0	0	0	0	0	0	0	0	0
Provincial	(145)	(145)	0	0	0	0	0	0	0	(145)	0
Own Funds	0	0	0	0	0	0	0	0	0	0	0
Fees and Services	(71,544)	(73,544)	0	0	0	0	0	0	(8,780)	(82,324)	(8,780)
Fines	0	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0
<b>Total Revenue</b>	<b>(71,689)</b>	<b>(73,689)</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>(8,780)</b>	<b>(82,469)</b>	<b>(8,780)</b>
<b>Percent of 2023 Revenue Budget</b>			<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>11.9%</b>	<b>11.9%</b>	
<b>Net Requirement</b>	<b>2,000</b>	<b>0</b>	<b>0</b>	<b>8,780</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>(8,780)</b>	<b>0</b>	<b>0</b>
<b>Percent of 2023 Net Requirement Budget</b>			<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	
<b>Full Time Equivalents (FTEs)</b>		44.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<b>44.00</b>	<b>0.00</b>
<b>Percent of 2023 FTEs</b>			<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	

City of Ottawa  
Infrastructure & Water Services Department  
Stormwater Services - Operating Resource Requirement Explanatory Notes  
In Thousands (\$000)

	Surplus / (Deficit)			
2022 Forecast vs. Budget Variance Explanation	Expense	Revenue	Net	
No significant variances. Revenue deficit as growth estimates not realized.	0	(2,000)	(2,000)	
Total Surplus / (Deficit)	0	(2,000)	(2,000)	
	Increase / (Decrease)			
2023 Pressure Category / Explanation	Expense	Revenue	Net 2023 Changes	FTE Impact
Maintain Services				
All programs include an adjustment for potential 2023 cost of living, increments and benefit adjustments.	150	0	150	0.00
Increase in operational costs related to inflation on supplies and service contracts.	100	0	100	0.00
Increase in Fleet costs related to inflation on compensation contracts, parts, fuel, contribution to capital reserve and maintenance.	20	0	20	0.00
Non Departmental				
Increase in Inter Departmental Admin and Direct Charges overhead costs due to COLA increases.	65	0	65	0.00
Increase in the contribution to the stormwater capital reserve fund.	8,445	0	8,445	0.00
Total Maintain Services	8,780	0	8,780	0.00
	Increase / (Decrease)			
2023 Pressure Category / Explanation	Expense	Revenue	Net 2023 Changes	FTE Impact
User Fees & Revenues				
See following user fee schedule for details on the specific rates.	0	(8,780)	(8,780)	0.00
Total User Fees & Revenues	0	(8,780)	(8,780)	0.00
Total Budget Changes	8,780	(8,780)	0	0.00

# Capital Budget

City of Ottawa  
 2023 Draft Capital Budget  
 Environment and Climate Change Committee - Rate  
 In Thousands (\$000)

Service Area: Drinking Water Services											
Category	2023 Draft Capital Budget	Revenues	Tax Supported/ Dedicated Reserves	Rate Supported Reserves	Develop. Charges	Gas Tax	Debt				
							Tax/ Dedicated	Rate	Develop. Charges	Gas Tax	Total Debt
Renewal of City Assets	54,910	0	0	43,910	0	0	0	11,000	0	0	11,000
Growth	13,696	0	0	6,514	6,725	0	0	0	457	0	457
Regulatory	150	0	0	150	0	0	0	0	0	0	0
Service Enhancements	0	0	0	0	0	0	0	0	0	0	0
Total	68,756	0	0	50,574	6,725	0	0	11,000	457	0	11,457

**City of Ottawa**  
**2023 Draft Capital Budget**  
**Service Area: Drinking Water Services**  
In Thousands (\$000)

Program Information				Financial Details																																															
Buildings-Water Services			Class of Estimate:		C) Planning																																														
Dept:	Infrastructure & Water Services Department	Category: Renewal of City Assets		Ward: Multiple		Year of Completion: Various																																													
Reduces greenhouse gases?		No		2023 Request		100	Projected Yearend Unspent Bal.		0																																										
Builds climate resiliency?		Yes - Minor Contribution		Revenues		0	Debt																																												
<p>The Building and Park programs provide for lifecycle renewal and replacement works to existing building and park assets. Detailed scope of work for specific projects extends to a wide assortment of work, such as roof replacement, building preservation, building mechanical and electrical systems, parks playgrounds and property elements, hard landscaping, arena and pool equipment and unplanned emergency work.</p> <p>Forecasts are based on bulk allocations that will be detailed in future budget submissions. Project cost group summaries are provided following this program summary. When selecting materials and solutions for lifecycle projects, measures are taken to account for increased seasonal variability and extreme weather events where project budget permits. This includes, for example, reflective or metal roofing to build resilience to heat, high winds or heavy snow.</p> <p>Annual programming provides allocations as required for each of the service areas as follows:</p> <table><tr><td>Service Area</td><td>Buildings</td><td>Parks</td></tr><tr><td>By-Law Services</td><td>200</td><td></td></tr><tr><td>Child Care Services</td><td>275</td><td></td></tr><tr><td>Cultural Services</td><td>2,300</td><td></td></tr><tr><td>Fire Services</td><td>2,400</td><td></td></tr><tr><td>General Government</td><td>3,130</td><td></td></tr><tr><td>Public Library</td><td>2,250</td><td></td></tr><tr><td>Long Term Care</td><td>1,675</td><td></td></tr><tr><td>Parks &amp; Recreation Facilities</td><td>28,425</td><td>6,200</td></tr><tr><td>Roads Services</td><td>4,295</td><td></td></tr><tr><td>Social Services</td><td>300</td><td></td></tr><tr><td>Water Services</td><td>100</td><td></td></tr><tr><td>Transit Services</td><td>3,600</td><td></td></tr><tr><td>TOTAL Authority Request</td><td>48,950</td><td>6,200</td></tr></table>				Service Area	Buildings	Parks	By-Law Services	200		Child Care Services	275		Cultural Services	2,300		Fire Services	2,400		General Government	3,130		Public Library	2,250		Long Term Care	1,675		Parks & Recreation Facilities	28,425	6,200	Roads Services	4,295		Social Services	300		Water Services	100		Transit Services	3,600		TOTAL Authority Request	48,950	6,200	Tax Supported/ Dedicated		0	Tax Supported/ Dedicated Debt		0
				Service Area	Buildings	Parks																																													
				By-Law Services	200																																														
				Child Care Services	275																																														
				Cultural Services	2,300																																														
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Social Services	300																																																		
Water Services	100																																																		
Transit Services	3,600																																																		
TOTAL Authority Request	48,950	6,200																																																	
Rate Supported		100	Rate Supported Debt		0																																														
Develop. Charges		0	Develop. Charges Debt		0																																														
Gas Tax		0	Gas Tax Debt		0																																														
Forecast		2023	2024	2025	2026																																														
Authority		100	150	150	150																																														
Spending Plan		100	150	150	150																																														
FTEs		0	0	0	0																																														
Operating Impact		0	0	0	0																																														

**City of Ottawa**  
**2023 Draft Capital Budget**  
**Service Area: Drinking Water Services**  
**In Thousands (\$000)**

[illegible]

**City of Ottawa**  
**2023 Draft Capital Budget**  
**Service Area: Drinking Water Services**  
**In Thousands (\$000)**

Program Information			Financial Details					
Water Communal Well System			Class of Estimate:		C) Planning			
Dept:	Infrastructure & Water Services Department	Category: Renewal of City Assets	Ward: Multiple		Year of Completion: Various			
Reduces greenhouse gases? No			2023 Request		4,425	Projected Yearend Unspent Bal. 115		
Builds climate resiliency? No			Revenues		0	Debt		
<p>The City currently operates six (6) communal well based drinking water systems. These include systems serving:</p> <p>Munster Hamlet Richmond – King’s Park Subdivision Richmond West Subdivision Carp Vars Greely - Shadow Ridge Subdivision</p> <p>Taken collectively, the asset value for the facilities associated with these communal drinking water systems (pumping stations, reservoirs, treatment process) is estimated at \$35 million.</p> <p>This program has been developed to ensure that these assets are maintained and that the demand, quality and regulatory requirements of this service are met.</p>			Tax Supported/ Dedicated		0	Tax Supported/ Dedicated Debt		0
			Rate Supported		4,425	Rate Supported Debt		0
			Develop. Charges		0	Develop. Charges Debt		0
			Gas Tax		0	Gas Tax Debt		0
			Forecast		2023	2024	2025	2026
			Authority		4,425	10,458	0	0
			Spending Plan		1,549	5,652	5,591	2,092
			FTEs		0	0	0	0
			Operating Impact		0	0	0	0

**City of Ottawa**  
**2023 Draft Capital Budget**  
**Service Area: Drinking Water Services**  
In Thousands (\$000)

Project(s) within a Program Information			\$000's
910006 Shadow Ridge Wells Rehab		Class of Estimate: A) Pre-Tender	4,125
Category: Renewal of City Assets	Ward: 21	Year of Completion: 2024	
The overall objective of this project is to provide the design and construction for two new deep 250mm diameter production wells into the Nepean Aquifer and to connect the new wells to the existing treatment pumphouse.			
910385 Well System Inspection and Rehab		Class of Estimate: C) Planning	300
Category: Renewal of City Assets	Ward: CW	Year of Completion: 2022	
The City currently operates six (6) communal well based drinking water systems. Taken collectively, the asset value for the facilities associated with these communal drinking water systems (pumping stations, reservoirs, treatment process) is estimated at \$35M. This project is to complete the inspections of the well systems.			



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Program Information			Financial Details											
Water Distribution Systems			Class of Estimate:		D) Conceptual									
Dept:	Infrastructure & Water Services Department	Category: Renewal of City Assets	Ward: Multiple		Year of Completion: Various									
Reduces greenhouse gases?			No		2023 Request		1,875		Projected Yearend Unspent Bal.		0			
Builds climate resiliency?			No		Revenues		0		Debt					
<p>The City of Ottawa operates a water distribution system consisting of approximately 3,238 km of piping, 21,292 fire hydrants, over 50,831 valves and 245,565 water service meters. The value of this buried infrastructure is over \$12.5 billion. This program is aimed at addressing annual preventive and corrective maintenance for the City's existing water distribution network in order to provide reliable operation of the network components, to ensure drinking water quality is maintained throughout the water distribution network and to preserve and extend the life of the infrastructure to prevent failures requiring heavier and costlier reconstruction strategies.</p> <p>The program is focused on:</p> <ul style="list-style-type: none"><li>- Proactive lifecycle renewal and rehabilitation projects;</li><li>- Level of service initiatives;</li><li>- System improvements and optimization;</li><li>- Asset lifecycle upgrades and rehabilitation to support growth demand.</li></ul> <p>Some of the key infrastructure renewal projects for 2023 are:</p> <ul style="list-style-type: none"><li>- Large Transmission Main condition assessment and risk mitigation projects;</li><li>- Preventative maintenance and water distribution system improvements;</li><li>- Lead Service Replacement program.</li></ul>					Tax Supported/ Dedicated		0		Tax Supported/ Dedicated Debt		0			
					Rate Supported		1,875		Rate Supported Debt		0			
					Develop. Charges		0		Develop. Charges Debt		0			
					Gas Tax		0		Gas Tax Debt		0			
					Forecast		2023		2024		2025		2026	
					Authority		1,875		4,033		4,123		4,221	
					Spending Plan		656		2,255		3,633		4,139	
					FTEs		0		0		0		0	
					Operating Impact		0		0		0		0	

City of Ottawa  
 2023 Draft Capital Budget  
 Service Area: Drinking Water Services  
 In Thousands (\$000)

Project(s) within a Program Information			\$000's
910855	2023 Ops Cond Assess-Critical Sys Links	Class of Estimate: D) Conceptual	1,875
Category: Renewal of City Assets	Ward: CW	Year of Completion: 2025	
<p>This multi-year project will provide the funding to conduct proactive condition assessment investigations of the water distribution system’s key transmission mains. These are the backbone of the water system and are critical to the continued reliability of service to large portions of the urban population. As the condition assessment technology can only occur under certain conditions, this work will require a number of years to complete. This program will improve drinking water service reliability</p>			

**City of Ottawa**  
**2023 Draft Capital Budget**  
**Service Area: Drinking Water Services**  
In Thousands (\$000)

Program Information			Financial Details											
Water Pumping Stations			Class of Estimate: D) Conceptual											
Dept:	Infrastructure & Water Services Department	Category: Renewal of City Assets	Ward: Multiple		Year of Completion: Various									
Reduces greenhouse gases?			No		2023 Request		4,650	Projected Yearend Unspent Bal.		14,128				
Builds climate resiliency?			No		Revenues		0		Debt					
<p>The purpose of this program is to establish a funding envelope for the retrofit, rehabilitation or replacement of the pumping station assets as they age. The asset value for the pumping station assets is estimated at \$135 million.</p> <p>Typical projects include: medium voltage electrical assessments, electrical upgrades, various condition assessments, standby power generator retrofits, flow meter replacements, and specialized Arc flash hazard studies.</p>					Tax Supported/ Dedicated		0		Tax Supported/ Dedicated Debt		0			
					Rate Supported		4,650		Rate Supported Debt		0			
					Develop. Charges		0		Develop. Charges Debt		0			
					Gas Tax		0		Gas Tax Debt		0			
					Forecast		2023		2024		2025		2026	
					Authority		4,650		575		0		1,850	
					Spending Plan		1,628		2,294		1,189		763	
					FTEs		0		0		0		0	
					Operating Impact		0		0		0		0	

City of Ottawa  
2023 Draft Capital Budget  
Service Area: Drinking Water Services  
In Thousands (\$000)

Project(s) within a Program Information			\$000's
906664	Hurdman Bridge PS Renewal	Class of Estimate: A) Pre-Tender	4,650
Category: Renewal of City Assets	Ward: CW	Year of Completion: 2024	
<p>The Hurdman Bridge Drinking Water Pump Station (HBPS) is located just north of the Hurdman Transit Station, adjacent to the CN/CP rail line, between Riverside Drive and the Rideau River. Constructed in early 1970s, the existing Hurdman PS is generally used to boost water from Zone 1 W to eastern water zones of the City. Due to age, much of the equipment at the HBPS is obsolete or at the end of its lifecycle. The intent of this project is to refurbish the entire station to bring it up to current City Standards, meet current and future pumping demands and implement a standby power system at the station. Furthermore, there is a need to increase water transfer pumping capacity for Zone 2C. Yard configuration and building repairs and refurbishment are also required.</p>			

**City of Ottawa**  
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**Service Area: Drinking Water Services**  
**In Thousands (\$000)**

Program Information			Financial Details								
Water Storage Tanks & Reservoirs			Class of Estimate: D) Conceptual								
Dept: Infrastructure & Water Services Department	Category: Renewal of City Assets	Ward: Multiple	Year of Completion: Various								
Reduces greenhouse gases? No		2023 Request 649		Projected Yearend Unspent Bal. 0							
Builds climate resiliency? No		Revenues 0		Debt							
<p>The purpose of this program is to establish a funding envelope required to sustain the continuous and reliable operation of the elevated tank and reservoir facilities which are critical in distributing drinking water to the City's customers. The asset value for the elevated tank and reservoir facilities is estimated at \$83 million.</p> <p>Typical projects include: equipment asset which must be retrofitted, rehabilitated or replaced due to age or condition failure; structural repairs at reservoirs; Health &amp; Safety retrofits and specialized inspections of elevated tanks.</p>		Tax Supported/ Dedicated 0		Tax Supported/ Dedicated Debt 0							
		Rate Supported 649		Rate Supported Debt 0							
		Develop. Charges 0		Develop. Charges Debt 0							
		Gas Tax 0		Gas Tax Debt 0							
		Forecast		2023		2024		2025		2026	
		Authority		649		7,160		6,010		0	
		Spending Plan		227		2,798		5,455		4,137	
		FTEs		0		0		0		0	
		Operating Impact		0		0		0		0	



City of Ottawa  
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 Service Area: Drinking Water Services  
 In Thousands (\$000)

Project(s) within a Program Information			\$000's
910872	Water Storage Tanks & Reservoirs 2023	Class of Estimate: A) Pre-Tender	649
Category: Renewal of City Assets	Ward: CW	Year of Completion: 2025	
The purpose of this program is to establish a funding envelope for the retrofit, rehabilitation or replacement of the storage and reservoir assets as they age.			
Projects for 2023 include Moodie Tank Coating Replacement and Fallowfield Reservoir Rehabilitation.			

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Program Information			Financial Details											
Water System Rehabilitation			Class of Estimate:		C) Planning									
Dept:	Infrastructure & Water Services Department	Category: Renewal of City Assets	Ward: Multiple		Year of Completion: Various									
Reduces greenhouse gases?			No		2023 Request		14,000		Projected Yearend Unspent Bal.		3,000			
Builds climate resiliency?			Yes - Minor Contribution		Revenues		0		Debt					
<p>The Water System Rehabilitation Program addresses the annual rehabilitation requirements for the City's piped water network: to extend the life of the infrastructure, provide continued supply of potable water, prevent failures requiring more extensive reconstruction, and ensure drinking water quality is maintained throughout the water distribution network.</p> <p>The program is focused on:</p> <ul style="list-style-type: none"><li>• Proactive lifecycle renewal and rehabilitation projects</li><li>• Level of service initiatives</li><li>• System improvements and optimization</li><li>• Miscellaneous upgrades and rehabilitation to support growth demand</li><li>• Miscellaneous local repairs</li></ul> <p>Program funding requirements to support renewal needs are defined in the Long Range Financial Plan. Forecasts are based on bulk allocations that will be detailed in future budget submissions. The funding requests for watermain costs coordinated with roadway, wastewater or stormwater rehabilitation are included within the Integrated Rehabilitation Programs. Detailed information and costs associated with specific stand alone (non-integrated) components and projects directly follow this program summary page.</p> <p>Water system renewals can reduce the impacts of climate fluctuations by reducing frost susceptibility. This is achieved by rebuilding watermains and services with more resilient materials and building below frost depth.</p>					Tax Supported/ Dedicated		0		Tax Supported/ Dedicated Debt		0			
					Rate Supported		6,000		Rate Supported Debt		8,000			
					Develop. Charges		0		Develop. Charges Debt		0			
					Gas Tax		0		Gas Tax Debt		0			
					Forecast		2023		2024		2025		2026	
					Authority		14,000		15,360		31,940		14,295	
					Spending Plan		7,000		11,880		23,378		19,802	
					FTEs		0		0		0		0	
					Operating Impact		0		0		0		0	

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Project(s) within a Program Information			Location/Description	\$000's
<b>910893 York St - Byward Market Sq</b>			<b>Class of Estimate: C) Planning</b>	<b>470</b>
Category: Renewal of City Assets	Ward: 12	Year of Completion: 2025		
<p>The watermain in York St from 33m east of Sussex Dr to Byward Market Sq and the Byward Market square watermain from York St to Clarence requires rehabilitation due to the age and lead services. Surface work will be limited to reinstatement of affected areas.</p> <p>The funding request will initiate the design phase and provide for all project related costs which may include but not limited to property acquisition.</p> <p>Year of Completion: 2028</p>				
<b>910894 Prince of Wales (Green Valley - DE)</b>			<b>Class of Estimate: C) Planning</b>	<b>530</b>
Category: Renewal of City Assets	Ward: 16	Year of Completion: 2025		
<p>The watermain in Prince of Wales Dr from Green Valley Cres to 300m north requires rehabilitation due to a high break rate. Surface work will be limited to reinstatement of affected areas.</p> <p>The funding request will initiate the design phase and provide for all project related costs which may include but not limited to property acquisition.</p> <p>Year of Completion: 2028</p>				



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Project(s) within a Program Information			\$000's
910895	2023 Water System Improvements	Class of Estimate: D) Conceptual	7,500
Category: Renewal of City Assets	Ward: CW	Year of Completion: 2025	
To meet long range watermain replacement goals, this program provides funding for watermain replacement in areas where there are no sewer or roadway needs. Funding is also used to implement measures to reduce system vulnerability to critical service areas. Measures could include, but are not limited to, watermain, valves, pumping stations, pumps, storage, backup power, other infrastructure and appurtenances, as required, to improve system reliability. The funding request may include design, construction and other related project costs.			
910896	2023 WM Transmission/Distribution Rehab	Class of Estimate: D) Conceptual	5,500
Category: Renewal of City Assets	Ward: CW	Year of Completion: 2025	
The City of Ottawa’s water distribution system consists of over 3,000 km of watermain, of which approximately 270 km are classified as transmission watermain. This program provides funding for improvements identified by the transmission watermain condition assessment program: rehabilitation or replacement of defective pipes or appurtenances as a result of corrosive attack, structural deficiencies, and erosion or soil movement. In addition, this program will allow for construction of various watermain links and appurtenances in the transmission and distribution systems, as well as repairs and cathodic protection to improve system flexibility and reliability.			

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Program Information			Financial Details											
Water Treatment - Renewal			Class of Estimate:		D) Conceptual									
Dept:	Infrastructure & Water Services Department	Category: Renewal of City Assets	Ward: Multiple		Year of Completion: Various									
Reduces greenhouse gases?			No		2023 Request		22,661		Projected Yearend Unspent Bal.		19,756			
Builds climate resiliency?			No		Revenues		0		Debt					
The program is aimed at addressing annual requirements for the City's two Water Purification Plants that have an estimated replacement value of \$665 million. In order to provide continued uninterrupted safe supply of potable water, to preserve and extend the life of the infrastructure, and to meet provincial and federal regulation requirements, it is necessary to invest in the ongoing rehabilitation and renewal of these assets.					Tax Supported/ Dedicated		0		Tax Supported/ Dedicated Debt		0			
					Rate Supported		20,661		Rate Supported Debt		2,000			
					Develop. Charges		0		Develop. Charges Debt		0			
					Gas Tax		0		Gas Tax Debt		0			
					Forecast		2023		2024		2025		2026	
					Authority		22,661		38,575		10,988		11,304	
					Spending Plan		7,931		23,699		25,737		16,616	
					FTEs		0		0		0		0	
					Operating Impact		0		0		0		0	

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Project(s) within a Program Information			\$000's
<b>909208</b>	<b>Lemieux &amp; Britannia G2 Generator Design</b>	<b>Class of Estimate: A) Pre-Tender</b>	<b>7,875</b>
Category: Renewal of City Assets	Ward: 7	Year of Completion: 2023	
<p>The 2017 Electrical Master Plan (EMP) identified that the G2 generators at Lemieux and Britannia Water Purification Plants will need to be replaced in conjunction with the associated mechanical and electrical infrastructure to support the reliable fulfillment of the present and forecasted production demands of the drinking water supply network. The scope of work includes the detailed design and replacement of the G2 generators.</p>			
<b>909560</b>	<b>Britannia LLP &amp; HLP Motors and Drives</b>	<b>Class of Estimate: B) Design</b>	<b>4,775</b>
Category: Renewal of City Assets	Ward: 7	Year of Completion: 2023	
<p>Movement of water through the Britannia Water Purification Plant is achieved through the low lift and high lift pumps. The low lift pumps draw the untreated river water into the plant and the high lift pumps move treated water into the distribution system. This project involves the replacement of motors and starters for low lift electric pumps 5 and 6, and high lift electric pumps 5 and 7.</p> <p>Functional Design project was completed in 2022. Budget request is for detailed design and construction.</p>			
<b>909573</b>	<b>DWS SCADA Network Upgrade</b>	<b>Class of Estimate: C) Planning</b>	<b>282</b>
Category: Renewal of City Assets	Ward: CW	Year of Completion: 2024	
<p>The City of Ottawa Drinking Water Services mission critical Operational Technology (OT) / Industrial Control System (ICS) / Supervisory, Control and Data Acquisition (SCADA) Systems are used to provide safe and reliable drinking water to residents. An independent review performed in 2017 determined several areas for improvement to these systems. The scope of this project includes:</p> <ul style="list-style-type: none"> <li>- Completing a Cybersecurity Vulnerability Assessment</li> <li>- Evaluating core network components</li> <li>- Replacing/upgrading software and hardware as needed</li> </ul> <p>The project will also ensure that the SCADA system complies with new security standards and update existing SCADA design standards as required.</p>			

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Project(s) within a Program Information			\$000's
909574 DWS SCADA HMI Upgrade		Class of Estimate: C) Planning	1,129
Category: Renewal of City Assets	Ward: CW	Year of Completion: 2024	
This project will update all Supervisory level components (HMI Software) and will implement the new Supervisory Control and Data Acquisition (SCADA) standards based on industry best practices. SCADA system is a computerized system used by Certified Operators to monitor and control the drinking water system. This project will be delivered in two phases. Phase 1 will include a research and discovery phase, followed by a design phase, standards update, and a pilot project. Phase 2 will encompass the balance of the HMI upgrade as the new HMI standards are applied to both Water Purification Plants and the remaining drinking water remote sites.			
Budget request is submitted for the remaining funding required to support Phase 1 of the project.			
909648 Lemieux Protective Relays Upgrades		Class of Estimate: C) Planning	1,000
Category: Renewal of City Assets	Ward: 7	Year of Completion: 2023	
This project involves the replacement of ten medium volt protective relays in various locations at the Lemieux Island Water Purification Plant along with SCADA networking and integration on the new relays. Scope also includes preparing electrical coordination, short-circuit, protective devices and arc-flash hazard studies at both Lemieux Island and Britannia Water Purification Plants.			
909649 WTP Surge Protection Improvements		Class of Estimate: A) Pre-Tender	200
Category: Renewal of City Assets	Ward: 7	Year of Completion: 2023	
The main objective of this project is to replace the malfunctioning priority-1 Surge Protection Devices (SPD) at both Water Purification Plants as identified in the 2017 Electrical Master Plan. The purpose of surge protection is to protect electrical equipment from damage or degradation by repetitive overvoltage surges. The scope of work includes the design and installation of the SPD.			

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910260 Wash Water Tank and Pump Room Rehab		Class of Estimate: D) Conceptual	555
Category: Renewal of City Assets	Ward: 7	Year of Completion: 2023	
At Lemieux Island Water Purification Plant, the wash water tank and pumps are critical components in the treatment process as they serve to backwash the filter media in the filtration tanks. Condition assessments completed in 2019 highlighted the need for structural work in the water tank room including repairs at the wash water tank to address spalling and exposed rebar. This project is currently in design phase. Funding is required for the construction phase.			
910668 Lem & Brit Operator Room Ergonomics		Class of Estimate: B) Design	589
Category: Renewal of City Assets	Ward: 15	Year of Completion: 2022	
This project involves the assessments of the Lemieux Island and Britannia Water Purification Plants process supervisor and operator control rooms. The scope of the project includes the evaluation of the HVAC, lighting, sound and flooring systems as well as an ergonomic assessments and functionality. The funding request includes the implementation of the recommendations from the assessments.			
910858 Water Treatment Rehab 2023		Class of Estimate: D) Conceptual	5,856
Category: Renewal of City Assets	Ward: CW	Year of Completion: 2026	
The replacement value of the City's two (2) water treatment facilities is \$665 million. This program addresses equipment upgrades; infrastructure life cycle replacement; SCADA and cybersecurity projects; condition assessments and process changes resulting from operational, legislative and health and safety initiatives.			
Projects for 2023 include Lemieux High Lift Pumps #3&#4 Repairs, Britannia Wash water / Clearwell 3 Remediation Work, Reliability Engineering Projects & Programs, SCADA UPS System Replacements, SCADA Master Plan, Cyber Security Projects, Lemieux High Lift Pumping Station Rehab and BAS HVAC Upgrades (Lemieux & Britannia).			

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Project(s) within a Program Information			\$000's
910884	DWS Capitalized Maintenance 2023	Class of Estimate: D) Conceptual	400
Category: Renewal of City Assets	Ward: 07, 15	Year of Completion: 2024	
The objective of this program is to manage the capitalized maintenance costs of the City's drinking water treatment assets.			

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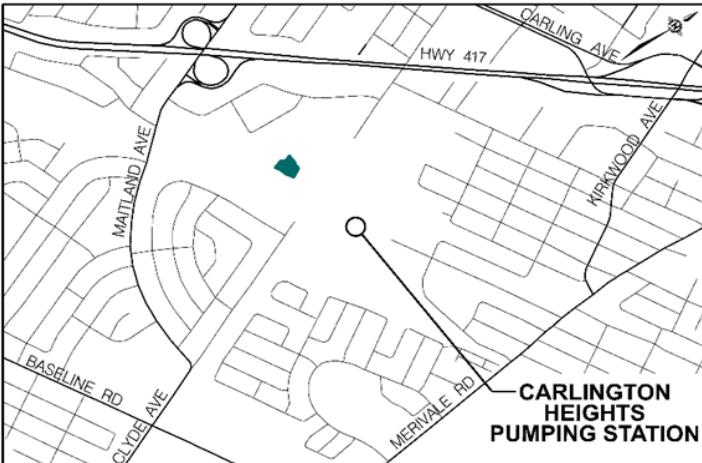
Program Information			Financial Details									
Water Systems General-Regulatory			Class of Estimate:		D) Conceptual							
Dept:	Infrastructure & Water Services Department	Category: Regulatory	Ward: Multiple		Year of Completion: Various							
Reduces greenhouse gases?			No		2023 Request		150	Projected Yearend Unspent Bal.		0		
Builds climate resiliency?			Yes - Minor Contribution		Revenues		0		Debt			
<p>This program is aimed at addressing matters that are common to Drinking Water Services, including Water Distribution, Water Production, Water Quality Assurance. These programs cover operational issues, legislative requirements, system planning, and other strategic directions such as environmental programs.</p> <p>The process of turning water into safe drinking water costs money due to the sophisticated processes, infrastructure, facilities, and chemical and electrical costs required to deliver this valuable product to homes all over the City of Ottawa. Reducing water consumption reduces the volume of wastewater in the collection system (sewer surcharging) and the volume of wastewater requiring treatment at ROPEC.</p>			Tax Supported/ Dedicated		0		Tax Supported/ Dedicated Debt		0			
			Rate Supported		150		Rate Supported Debt		0			
			Develop. Charges		0		Develop. Charges Debt		0			
			Gas Tax		0		Gas Tax Debt		0			
			Forecast		2023		2024		2025		2026	
			Authority		150		150		150		150	
			Spending Plan		53		120		150		150	
			FTEs		0		0		0		0	
			Operating Impact		0		0		0		0	

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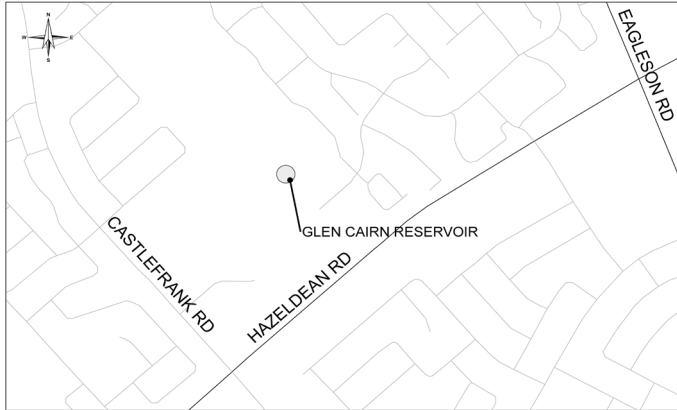
Project(s) within a Program Information			\$000's	
910860 Water Efficiency 2023		Class of Estimate: A) Pre-Tender		150
Category: Regulatory		Ward: CW	Year of Completion: 2026	
Develop water efficiency programs to provide water demand management, effective use of resources, delay or eliminate the need to expand system capacity. Reducing water consumption reduces the volume of wastewater in the collection system (sewer surcharging) and the volume of wastewater requiring treatment at ROPEC.				



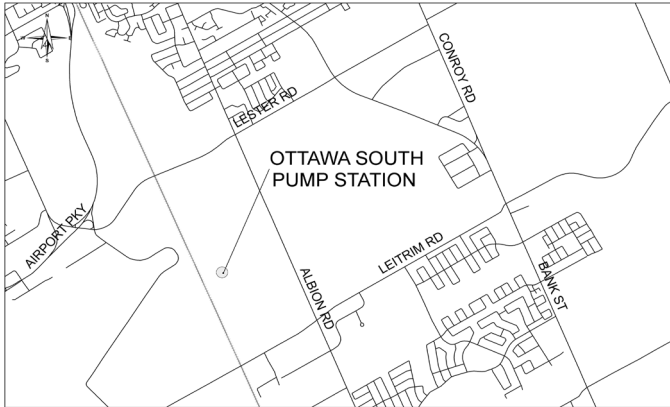
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Project Information				Financial Details					
900631 Carlington Heights Pumping Stn Expansion				Class of Estimate: A) Pre-Tender					
Dept:	Infrastructure & Water Services Department	Category: Growth	Ward: 16	Year of Completion: 2023					
Reduces greenhouse gases?			No	2023 Request		3,174	Projected Yearend Unspent Bal.		12,747
Builds climate resiliency?			No	Revenues		0	Debt		
<p>This project involves the construction of a new drinking water pump station at the site of the existing Carlington Heights Pumping Station. The scope of work also includes decommissioning of the existing station, and various on-site watermain. This request is needed to supplement the existing authority for construction of the project, based on the most current estimate. The project is projected to be tendered in 2023. 1% of the construction costs will be allocated to public art.</p> <p>This project is to increase the capacity of the pump station to accommodate future growth.</p> <p>Year of completion: 2025</p>				Tax Supported/ Dedicated		0	Tax Supported/ Dedicated Debt		0
				Rate Supported Develop. Charges		2,285	Rate Supported Debt		0
				Gas Tax		889	Develop. Charges Debt		0
						0	Gas Tax Debt		0
				Forecast		2023	2024	2025	2026
				Authority		3,174	0	0	0
				Spending Plan		10,587	4,699	635	0
				FTEs		0	0	0	0
				Operating Impact		0	0	290	0
									

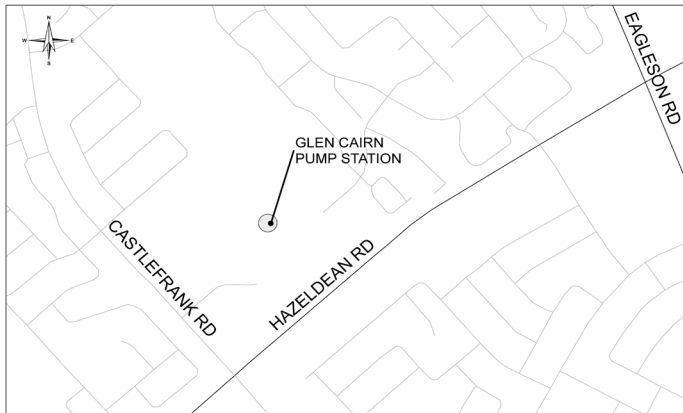
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Project Information				Financial Details					
901144 Glen Cairn Reservoir Expansion			Class of Estimate: D) Conceptual						
Dept:	Infrastructure & Water Services Department	Category: Growth	Ward: 23	Year of Completion: 2026					
Reduces greenhouse gases?			No	2023 Request		354	Projected Yearend Unspent Bal.		0
Builds climate resiliency?			No	Revenues		0	Debt		
This project was identified in the Infrastructure Master Plan and is needed to provide sufficient drinking water storage capacity to meet the future needs of the West Urban Community. This budget request is to fund initial study work needed to scope the project.				Tax Supported/ Dedicated		0	Tax Supported/ Dedicated Debt		0
				Rate Supported Develop. Charges		35	Rate Supported Debt		0
						319	Develop. Charges Debt		0
				Gas Tax		0	Gas Tax Debt		0
				Forecast		2023	2024	2025	2026
				Authority		354	5,396	16,500	0
				Spending Plan		177	2,804	9,940	6,029
				FTEs		0	0	0	0
Operating Impact		0	0	0	0				
									

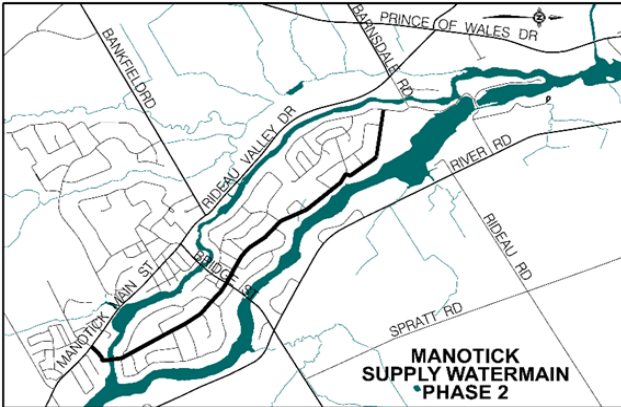
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Project Information			Financial Details						
902206   Ottawa South Pumping Station Upgrade			Class of Estimate:   A) Pre-Tender						
Dept:	Infrastructure & Water Services Department	Category: Growth	Ward: 10	Year of Completion: 2026					
Reduces greenhouse gases?			No	2023 Request		2,857	Projected Yearend Unspent Bal.		12,422
Builds climate resiliency?			No	Revenues		0	Debt		
<p>This project was identified in the Infrastructure Master Plan and is needed to provide sufficient drinking water pumping capacity to meet the needs of the South Urban Community and the Ottawa Airport. This budget request is to supplement existing authority for construction based on revised cost estimates.</p> <p>This project is to increase the capacity of the pump station to accommodate future growth.</p>				Tax Supported/ Dedicated		0	Tax Supported/ Dedicated Debt		0
				Rate Supported Develop. Charges		1,400	Rate Supported Debt		0
						1,000	Develop. Charges Debt		457
				Gas Tax		0	Gas Tax Debt		0
				Forecast		2023	2024	2025	2026
				Authority		2,857	0	1,187	0
				Spending Plan		6,429	5,857	3,587	356
				FTEs		0	0	0	0
				Operating Impact		326	0	0	0
									

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Project Information				Financial Details					
904972 Glen Cairn PS Upgrade			Class of Estimate: D) Conceptual						
Dept:	Infrastructure & Water Services Department	Category: Growth	Ward: 23	Year of Completion: 2027					
Reduces greenhouse gases?			No	2023 Request		1,322	Projected Yearend Unspent Bal.		0
Builds climate resiliency?			No	Revenues		0	Debt		
<p>This project was identified in the Infrastructure Master Plan and is needed to provide sufficient drinking water pumping capacity to meet the future needs of the West Urban Community. This budget request is to fund initial study work needed to scope the project.</p> <p>This project is to increase the capacity of the pump station to accommodate future growth.</p>				Tax Supported/ Dedicated		0	Tax Supported/ Dedicated Debt		0
				Rate Supported Develop. Charges		132	Rate Supported Debt		0
				Gas Tax		0	Gas Tax Debt		0
				Forecast		2023	2024	2025	2026
				Authority		1,322	4,047	0	0
				Spending Plan		661	2,420	1,479	809
				FTEs		0	0	0	0
				Operating Impact		0	0	0	0
									

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Project Information				Financial Details						
910050 Manotick Supply Watermain - Phase 2				Class of Estimate: B) Design						
Dept:	Infrastructure & Water Services Department	Category:	Growth	Ward:	21	Year of Completion: 2024				
Reduces greenhouse gases?				No	2023 Request		5,290	Projected Yearend Unspent Bal.		19,546
Builds climate resiliency?				No	Revenues		0	Debt		
<p>This project, which is identified in the Infrastructure Master Plan, provides an extension to the Phase 1 project from the north end of Long Island to the southern part of the village. The project will improve the reliability of water supply and provide additional capacity to the village to support development. The watermain also allows the opportunity for local improvements for village residents that currently rely on private services. The project is currently in the design phase. This request is to cover the cost of construction.</p>					Tax Supported/ Dedicated		0	Tax Supported/ Dedicated Debt		0
					Rate Supported Develop. Charges		2,539	Rate Supported Debt		0
					Charges		2,751	Develop. Charges Debt		0
					Gas Tax		0	Gas Tax Debt		0
					Forecast		2023	2024	2025	2026
					Authority		5,290	0	0	0
					Spending Plan		15,529	9,307	0	0
					FTEs		0	0	0	0
Operating Impact		392	0	0	0					
										

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Project Information				Financial Details					
910900 2023 Off Site Reliability Links			Class of Estimate:		Not Applicable				
Dept:	Infrastructure & Water Services Department	Category: Growth	Ward: CW		Year of Completion: 2025				
Reduces greenhouse gases?		No	2023 Request		170	Projected Yearend Unspent Bal.			0
Builds climate resiliency?		No	Revenues		0	Debt			
This budget request is to cover minor off-site watermain connections needed to improve the reliability of water supply to development areas.			Tax Supported/ Dedicated		0	Tax Supported/ Dedicated Debt		0	
			Rate Supported		17	Rate Supported Debt		0	
			Develop. Charges		153	Develop. Charges Debt		0	
			Gas Tax		0	Gas Tax Debt		0	
			Forecast		2023	2024	2025	2026	
			Authority		170	173	177	181	
			Spending Plan		170	173	177	181	
			FTEs		0	0	0	0	
			Operating Impact		0	0	0	0	
910903 2023 Water & Wastewater Studies			Class of Estimate:		Not Applicable				
Dept:	Infrastructure & Water Services Department	Category: Growth	Ward: CW		Year of Completion: 2025				
Reduces greenhouse gases?		No	2023 Request		529	Projected Yearend Unspent Bal.			0
Builds climate resiliency?		Yes - Minor Contribution	Revenues		0	Debt			
This capital account is intended to support various studies related to the planning of growth-driven water and wastewater infrastructure and related aspects of public infrastructure servicing. This includes technical studies, functional design work, and Class Environmental assessments.  Water and wastewater studies may include analysis of ways to reduce climate risks from increased precipitation volume and intensity and extreme heat and drought.			Tax Supported/ Dedicated		0	Tax Supported/ Dedicated Debt		0	
			Rate Supported		106	Rate Supported Debt		0	
			Develop. Charges		423	Develop. Charges Debt		0	
			Gas Tax		0	Gas Tax Debt		0	
			Forecast		2023	2024	2025	2026	
			Authority		529	540	291	298	
			Spending Plan		529	540	291	298	
			FTEs		0	0	0	0	
			Operating Impact		0	0	0	0	

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Program Information			Financial Details			
<b>Water Meter Replacement Program</b>			<b>Class of Estimate: Not Applicable</b>			
Dept: Finance Service Department	Category: Renewal of City Assets	Ward: Multiple	Year of Completion: Various			
Reduces greenhouse gases?	Yes - Minor Contribution	<b>2023 Request</b>	<b>6,550</b>	Projected Yearend Unspent Bal.		
Builds climate resiliency?	No	Revenues	0	Debt		
This multi-year program has been established to increase the accuracy of water metering and billing through the replacement of water meters and meter reading equipment which have passed their life expectancy. It also includes upgrades to metering and billing software due to lifecycle requirements and implementation of mobility for meter maintenance.		Tax Supported/ Dedicated	0	Tax Supported/ Dedicated Debt	0	
		Rate Supported	5,550	Rate Supported Debt	1,000	
		Develop. Charges	0	Develop. Charges Debt	0	
		Gas Tax	0	Gas Tax Debt	0	
		<b>Forecast</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>
		Authority	6,550	5,475	5,450	6,625
		Spending Plan	6,550	5,475	5,450	6,625
		FTEs	0	0	0	0
		Operating Impact	0	0	0	0

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Project(s) within a Program Information			\$000's
<b>908076</b>	<b>Large Water Meters Changeout Program</b>	<b>Class of Estimate: Not Applicable</b>	<b>300</b>
Category: Renewal of City Assets	Ward: CW	Year of Completion: 2027	
Ongoing replacement of commercial high volume water meters which have passed their life expectancy with new technology offering higher accuracy and lower maintenance costs. Large volume water meters have a shorter useful lifecycle, requiring maintenance every two to eight years due to the high volume of water causing wear and tear on mechanical components of the meter. New Meters will reduce maintenance costs, increase accuracy, and provide consistent revenues.			
<b>908908</b>	<b>Small Water Meters Changeout Program</b>	<b>Class of Estimate: Not Applicable</b>	<b>1,650</b>
Category: Renewal of City Assets	Ward: CW	Year of Completion: 2027	
Funding is required to replace a growing number of residential water meters which have passed their life expectancy of 20 years. Aging water meters will under record water consumption, resulting in loss of revenue. New meters offer improved accuracy as well as improved ability for tracking of leaks.			
<b>908909</b>	<b>Advanced Metering Infrastructure (AMI) Changeout Program</b>	<b>Class of Estimate: Not Applicable</b>	<b>3,000</b>
Category: Renewal of City Assets	Ward: CW	Year of Completion: 2026	
Replacement of components of the Automated Meter Reading Infrastructure system, implemented in 2011, which are approaching the end of life. Components of the system will be replaced with newer prevailing technologies that maintain automated meter reading operational requirements.			



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Project(s) within a Program Information			\$000's
<b>908995</b>	<b>Advanced Metering Infrastructure (AMI) Software Upgrades</b>	<b>Class of Estimate: Not Applicable</b>	<b>650</b>
Category: Renewal of City Assets	Ward: CW	Year of Completion: 2022	
Upgrade Itron software to maintain system security and configure new functionality which improves the accuracy and redundancy of our wireless meter reading network. Year of Completion: 2024.			
<b>908996</b>	<b>Meter Service Mobility</b>	<b>Class of Estimate: Not Applicable</b>	<b>150</b>
Category: Renewal of City Assets	Ward: CW	Year of Completion: 2023	
Funding is required for meter service mobility equipment, hardware, and software. Mobilization of the meter servicing unit will reduce duplication of efforts through the elimination of paper work orders, and streamline the data entry process. It will also decentralize the location of staff; allowing efficient route planning which reduces time spent on the road, enabling staff to complete more work orders in less time. Overall, this will improve the client experience and decrease service wait times.			
<b>909930</b>	<b>Water &amp; Sewer Utility Billing System</b>	<b>Class of Estimate: Not Applicable</b>	<b>800</b>
Category: Renewal of City Assets	Ward: CW	Year of Completion: 2022	
Upgrade H2Ottawa and MySO water to latest version, including configuration of new system functionality and enhancements to customer billing and usage monitoring services. Year of Completion: 2023.			

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Service Area: Integrated Water & Wastewater											
Category	2023 Draft Capital Budget	Revenues	Tax Supported/ Dedicated Reserves	Rate Supported Reserves	Develop. Charges	Gas Tax	Debt				
							Tax/ Dedicated	Rate	Develop. Charges	Gas Tax	Total Debt
Renewal of City Assets	19,080	0	0	10,990	0	0	0	8,090	0	0	8,090
Growth	0	0	0	0	0	0	0	0	0	0	0
Regulatory	0	0	0	0	0	0	0	0	0	0	0
Service Enhancements	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>19,080</b>	<b>0</b>	<b>0</b>	<b>10,990</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>8,090</b>	<b>0</b>	<b>0</b>	<b>8,090</b>

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Program Information			Financial Details					
Integrated Water & Wastewater			Class of Estimate:		C) Planning			
Dept:	Infrastructure & Water Services Department	Category: Renewal of City Assets	Ward: Multiple		Year of Completion: Various			
Reduces greenhouse gases?		No	2023 Request		19,080	Projected Yearend Unspent Bal.		2,380
Builds climate resiliency?		Yes - Minor Contribution	Revenues		0	Debt		
<p>The Integrated Rate Program includes rehabilitation of more than one asset class (sanitary sewers, storm drainage, and water mains) that are coordinated within a single project. The program is aimed at renewing and replacing the infrastructure assets in order to provide continued service and prevent failures.</p> <p>The program is comprised of:</p> <ul style="list-style-type: none"><li>• Functional and preliminary designs.</li><li>• Lifecycle renewal: renewal, rehabilitation and replacements for deterioration.</li><li>• Coordinated renewal: schedule coordination (escalation or deferral) between asset classes and with other asset classes.</li><li>• Level of service enhancements: flooding improvements and system optimization.</li><li>• Upgrades and rehabilitation to support growth and miscellaneous localized repairs.</li></ul> <p>Forecasts are based on bulk allocations that will be detailed in future budget submissions. Detailed information and costs associated with specific components and projects are provided following this program summary.</p> <p>Renewing sanitary, storm and/or combined sewers builds resiliency to the increased flood risks expected with climate change. Projects in this program reduce the risk of localized flooding by managing surface water and preventing private property flooding.</p>			Tax Supported/ Dedicated		0	Tax Supported/ Dedicated Debt		0
			Rate Supported		10,990	Rate Supported Debt		8,090
			Develop. Charges		0	Develop. Charges Debt		0
			Gas Tax		0	Gas Tax Debt		0
			Forecast		2023	2024	2025	2026
			Authority		19,080	18,400	19,900	21,250
			Spending Plan		9,540	14,924	19,286	20,275
			FTEs		0	0	0	0
			Operating Impact		0	0	0	0

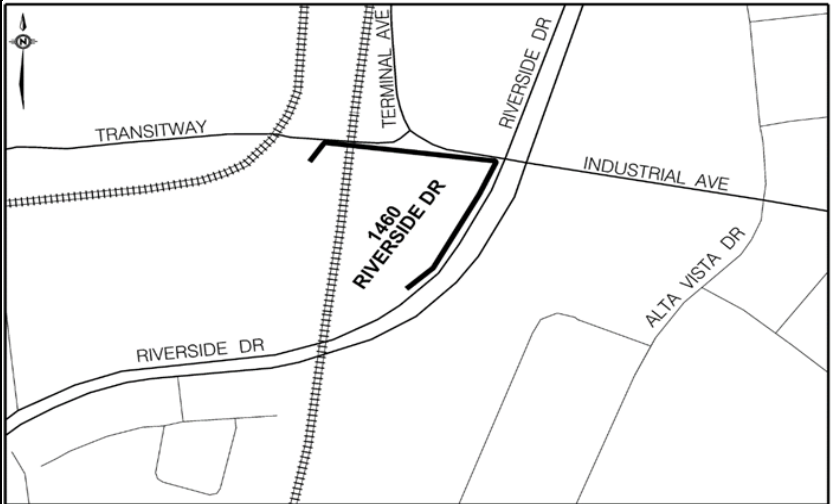
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**Service Area: Integrated Water & Wastewater**  
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Project(s) within a Program Information			\$000's
<b>910887</b>	<b>2023 Easement Agreements Updates</b>	<b>Class of Estimate: Not Applicable</b>	<b>5,000</b>
Category: Renewal of City Assets	Ward: CW	Year of Completion: 2025	
<p>Various existing City underground watermain and sewer assets are currently located within non City owned property. This budget request will provide funding to negotiate new easements and re-negotiate expired or soon to expire easement agreements and acquire new easements for the existing or proposed sewers and watermains.</p>			
<b>910888</b>	<b>2023 Hydraulic Structures</b>	<b>Class of Estimate: D) Conceptual</b>	<b>500</b>
Category: Renewal of City Assets	Ward: CW	Year of Completion: 2025	
<p>The authority will provide for the rehabilitation of the City's sewer outfalls, access structures and other hydraulic features. The funding is for all project related costs which may include but not limited to studies, design, construction and property acquisition.</p>			
<b>910889</b>	<b>2023 Sewer Repairs / Improvements</b>	<b>Class of Estimate: D) Conceptual</b>	<b>7,000</b>
Category: Renewal of City Assets	Ward: CW	Year of Completion: 2025	
<p>A number of locations have been identified to resolve sewer infrastructure and surface flooding problems. Work could entail both trenchless and conventional spot repairs, as well as various hydraulic improvements such as; installing catch basins, re-profiling driveways and road grading. The authority provides for the design, construction and all associated costs for various drainage and sewer improvements.</p>			

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Project(s) within a Program Information			\$000's
910890 2023 Sewer Trenchless Rehab		Class of Estimate: D) Conceptual	3,000
Category: Renewal of City Assets	Ward: CW	Year of Completion: 2025	
<p>This project provides for relining of sewers, access structures, and spot repairs at various locations. The work will improve: structural integrity, hydraulic performance, reduce basement flooding, reduce extraneous flows, and improve the overall operation of the system.</p>			
910891 2023 Sewer&Watermain Inspec&Data Mngmt		Class of Estimate: Not Applicable	1,400
Category: Renewal of City Assets	Ward: CW	Year of Completion: 2025	
<p>This project provides funding to ensure the sustained performance of the City's wastewater, stormwater and water production and distribution systems in support of the capital renewal program and operational requirements. The funding is primarily focused on the collection on, and maintenance of, the condition and performance of the City's wastewater, stormwater and water networks. The Inspection and Data Management program monitors the conditions of piped networks, monitors the performance of pipes and systems, confirms flow conditions and can identify defects within the various water networks.</p>			

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Project(s) within a Program Information			Location/Description	\$000's
<b>910436 Riverside Dr Sewers (S of Industrial Av to Transitway)</b>			<b>Class of Estimate: A) Pre-Tender</b>	<b>2,180</b>
Category: Renewal of City Assets	Ward: 17, 18	Year of Completion: 2023		
<p>The existing sanitary and storm sewers are currently aligned within the National Capital Commission (NCC) owned property at 1460 Riverside Dr. The NCC has asked that the sewers be re-aligned outside their property to allow for development. This project will see the re-alignment of the existing sanitary and storm sewers.</p> <p>The funding request will provide for all project related costs which may include design costs, construction costs, utility costs and/or property costs.</p>				

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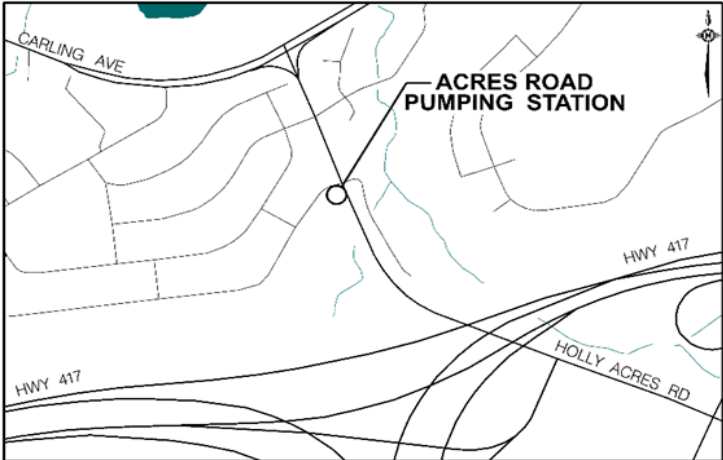
Service Area: Wastewater Services											
Category	2023 Draft Capital Budget	Revenues	Tax Supported/ Dedicated Reserves	Rate Supported Reserves	Develop. Charges	Gas Tax	Debt				
							Tax/ Dedicated	Rate	Develop. Charges	Gas Tax	Total Debt
Renewal of City Assets	90,712	0	0	55,212	50	0	0	35,450	0	0	35,450
Growth	11,133	476	0	3,184	7,473	0	0	0	0	0	0
Regulatory	610	0	0	610	0	0	0	0	0	0	0
Service Enhancements	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>102,455</b>	<b>476</b>	<b>0</b>	<b>59,006</b>	<b>7,523</b>	<b>0</b>	<b>0</b>	<b>35,450</b>	<b>0</b>	<b>0</b>	<b>35,450</b>

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Project Information			Financial Details						
908250 Infrastructure Planning Information Mgmt			Class of Estimate:		Not Applicable				
Dept:	Infrastructure & Water Services Department	Category: Renewal of City Assets	Ward: CW		Year of Completion: 2025				
Reduces greenhouse gases?		No	2023 Request		582	Projected Yearend Unspent Bal.			918
Builds climate resiliency?		No	Revenues		0	Debt			
Development and implementation of information management systems to support infrastructure planning and related City functions. The 2023 request is to fund on-going development of a system for City-wide geotechnical data, supporting open access to existing geotechnical data from local consulting firms and other sources. The system will support improved planning and project decisions and reduced project costs.			Tax Supported/ Dedicated		0	Tax Supported/ Dedicated Debt		0	
			Rate Supported		582	Rate Supported Debt		0	
			Develop. Charges		0	Develop. Charges Debt		0	
			Gas Tax		0	Gas Tax Debt		0	
			Forecast		2023	2024	2025	2026	
			Authority		582	270	219	225	
			Spending Plan		291	310	307	232	
			FTEs		0	0	0	0	
			Operating Impact		0	0	0	0	



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Project Information			Financial Details				
<b>909745 Acres Road PS Phase 1 Renewal</b>			<b>Class of Estimate: A) Pre-Tender</b>				
Dept: Infrastructure & Water Services Department	Category: Renewal of City Assets	Ward: 7	Year of Completion: 2023				
Reduces greenhouse gases? No		<b>2023 Request</b> 874		Projected Yearend Unspent Bal. 2,244			
Builds climate resiliency? Yes - Minor Contribution		Revenues	0	Debt			
<p>The need to upgrade the existing capacity of the Acres Road wastewater PS was identified in the Infrastructure Master Plan to accommodate growth in the West Urban Community. The functional design study for Acres Road pumping station completed in 2019 recommended four phases to bring the station to its ultimate rated capacity of 4,600 L/s. Phase 1 work consists of header repair and pump replacement. Currently the Phase 1 project had been tendered and is under construction. This budget request is to cover increased cost of Phase 1 construction.</p> <p>This project helps reduce climate risks from increased precipitation volume and intensity.□</p> <p>Year of completion: 2025.</p>		Tax Supported/ Dedicated	0	Tax Supported/ Dedicated Debt	0		
		Rate Supported Develop.	874	Rate Supported Debt	0		
		Charges	0	Develop. Charges Debt	0		
		Gas Tax	0	Gas Tax Debt	0		
		<b>Forecast</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	
		Authority	874	0	0	0	0
		Spending Plan	2,681	262	175		0
		FTEs	0	0	0		0
		Operating Impact	0	0	0		0
							

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Project Information			Financial Details							
910904 2023 Pump Stations Capacity Renewal			Class of Estimate:		B) Design					
Dept:	Infrastructure & Water Services Department	Category: Renewal of City Assets	Ward: 4, 19, 21, 22		Year of Completion: 2026					
Reduces greenhouse gases?			No		2023 Request		2,609	Projected Yearend Unspent Bal.		0
Builds climate resiliency?			Yes - Minor Contribution		Revenues		0	Debt		
<p>These funds will be used to cover renewal needs (benefit to existing) at five sanitary sewage pump stations that are also being upgraded for capacity to support growth. The growth portion of the works is covered by a separate account which is funded by development charges.</p> <p>This project helps reduce climate risks from increased precipitation volume and intensity.□</p>					Tax Supported/ Dedicated		0	Tax Supported/ Dedicated Debt		0
					Rate Supported		2,559	Rate Supported Debt		50
					Develop. Charges		0	Develop. Charges Debt		0
					Gas Tax		0	Gas Tax Debt		0
					Forecast		2023	2024	2025	2026
					Authority		2,609	2,644	0	0
					Spending Plan		1,305	2,105	1,315	529
					FTEs		0	0	0	0
					Operating Impact		0	0	0	0

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Program Information			Financial Details						
Wastewater & Stormwater Collection			Class of Estimate:		D) Conceptual				
Dept:	Infrastructure & Water Services Department	Category: Renewal of City Assets	Ward: Multiple		Year of Completion: Various				
Reduces greenhouse gases?		No	2023 Request		2,200	Projected Yearend Unspent Bal.			0
Builds climate resiliency?		No	Revenues		0	Debt			
The City's wastewater and stormwater collection system includes over 5,900 km's of sanitary, storm and combined pipes with a replacement value of over \$10.8 billion. The Wastewater & Stormwater Collection Rehabilitation Program addresses annual condition assessment, replacement, rehabilitation and capitalized maintenance requirements to preserve and extend the life of the infrastructure, reduce flooding occurrences, and prevent failures requiring more extensive reconstruction. Program funding requirements to support renewal needs are defined in the Long Range Financial Plan. The 2023 forecast is based on bulk allocations that will be detailed in future budget submissions.			Tax Supported/ Dedicated		0	Tax Supported/ Dedicated Debt		0	
			Rate Supported		1,700	Rate Supported Debt		500	
			Develop. Charges		0	Develop. Charges Debt		0	
			Gas Tax		0	Gas Tax Debt		0	
			Forecast		2023	2024	2025	2026	
			Authority		2,200	7,850	7,960	8,080	
			Spending Plan		1,170	3,938	6,759	7,980	
			FTEs		0	0	0	0	
			Operating Impact		0	0	0	0	

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Project(s) within a Program Information			\$000's
910910 Collection System Condition Assess. 2023		Class of Estimate: D) Conceptual	1,000
Category: Renewal of City Assets	Ward: CW	Year of Completion: 2026	
This project intends to systematically inspect and assess the condition of large and small sewer trunks and collectors and perform some repairs. The output of this program will be used to develop capital renewal and/or rehabilitation programs.			
910920 Linear Sewage System Improvements 2023		Class of Estimate: D) Conceptual	1,000
Category: Renewal of City Assets	Ward: CW	Year of Completion: 2025	
Ongoing repair and rehabilitation of the City sewer system is required to maintain its integrity and its hydraulic capacity, as well as to protect the City's extensive investment in infrastructure. This work consists of a variety of generally smaller projects involving the sewers and related appurtenances (manholes, drop shaft, ladders and landings, etc.).			
910921 Flow Monitoring System Rehab 2023		Class of Estimate: D) Conceptual	200
Category: Renewal of City Assets	Ward: CW	Year of Completion: 2025	
This project focuses on the ongoing reliability and upgrades to the flow monitoring system currently in place within the wastewater collection system.			

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Program Information			Financial Details					
Wastewater Collection Pumping Station			Class of Estimate:		D) Conceptual			
Dept:	Infrastructure & Water Services Department	Category: Renewal of City Assets	Ward: Multiple		Year of Completion: Various			
Reduces greenhouse gases?		No	2023 Request		23,558	Projected Yearend Unspent Bal.		377
Builds climate resiliency?		No	Revenues		0	Debt		
<p>The City of Ottawa owns and operates wastewater collection remote and treatment facilities in support of the Wastewater Management program. The Collection Pumping Station Program covers all the wastewater pumping stations and associated forcemains in the city. The asset value is estimated at \$596 million.</p> <p>The objective of this program is to manage the lifecycle replacement and capitalized maintenance costs of this asset. Projects under this program will maintain or extend the life of the pumping processes and equipment.</p>			Tax Supported/ Dedicated		0	Tax Supported/ Dedicated Debt		0
			Rate Supported		18,058	Rate Supported Debt		5,500
			Develop. Charges		0	Develop. Charges Debt		0
			Gas Tax		0	Gas Tax Debt		0
			Forecast		2023	2024	2025	2026
			Authority		23,558	19,750	4,750	4,750
			Spending Plan		8,245	17,514	15,262	7,750
			FTEs		0	0	0	0
			Operating Impact		0	0	0	0

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Project(s) within a Program Information			\$000's
<b>909226</b>	<b>Flow Through Station Rehabs</b>	<b>Class of Estimate: D) Conceptual</b>	<b>700</b>
Category: Renewal of City Assets	Ward: CW	Year of Completion: 2023	
<p>This project aims to upgrade four flow-through sanitary wastewater pump stations located in Bay Ward to improve their operation and reliability. The catchments served by the Britannia, Lincoln Heights, McEwan and Pooler stations have experienced basement flooding during extreme wet weather events in the past. The project will upgrade each station to have redundancy in pumping, backup power and controls to reduce the likelihood of having a failure that could result in flooding. In addition, there will be miscellaneous repairs (based on already completed condition assessments) to the manhole chambers that will include concrete rehabilitation and lining; replacement of ladders, hoists and platforms; and replacement of manhole covers.</p>			
<b>909972</b>	<b>RCAF and RCMP PS Rehabilitation</b>	<b>Class of Estimate: C) Planning</b>	<b>4,000</b>
Category: Renewal of City Assets	Ward: 13	Year of Completion: 2023	
<p>The scope of this project is to assess, design and complete process, mechanical, electrical, instrumentation/controls, and building HVAC upgrades necessary for lifecycle replacements of equipment at the RCMP and RCAF Pumping Stations.</p>			
<b>910774</b>	<b>St Joseph PS Reliability Upgrade</b>	<b>Class of Estimate: C) Planning</b>	<b>400</b>
Category: Renewal of City Assets	Ward: 1	Year of Completion: 2023	
<p>The St. Joseph Storm Sewer and Pump Station prevents Rideau River from surcharging the upstream storm sewers. The pumping station itself is scoped to be decommissioned in the next few years but the components being replaced will remain. Some of the station components such as the existing backflow prevention valve are reaching end of service life and require proper maintenance access.</p>			

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Project(s) within a Program Information			\$000's
<b>910914</b>	<b>Sewage Pumping Station Rehab Prog 2023</b>	<b>Class of Estimate: D) Conceptual</b>	<b>11,458</b>
Category: Renewal of City Assets	Ward: CW	Year of Completion: 2029	
<p>The City of Ottawa owns and operates several wastewater collection remote and treatment facilities, in support of the Wastewater Management program. This project provides the funding for the operational studies, condition assessment and lifecycle rehabilitation and replacement of critical components such as mechanical, electrical stand-by power and facility odour &amp; corrosion control equipment in order to ensure operational efficiency, continued reliability and environmental protection.</p> <p>Projects for 2023 include, Pumping Stations Decommissioning, Programmable Logic Controller (PLC) &amp; Remote Processing Unit (RPU) Upgrades, Combined Sewer Overflow Flow Monitoring, Replacement of the Hazeldean manual screen, Combined Sewage Storage Tunnel (CSST) and regulators misc rehabs, Donald B Munro and Carleton Lodge Wet well rehabs, Forcemain Condition Assessment, Rehab &amp; Cathodic protection, Wessex piping modifications, Dolan Antler Pumping station Rehab, Reliability Engineering Projects &amp; Programs, Health &amp; Safety Rehab (Ladders, Platforms) and New storage building at ROPEC.</p>			
<b>910924</b>	<b>Waste Water Collection Maintenance 2023</b>	<b>Class of Estimate: D) Conceptual</b>	<b>7,000</b>
Category: Renewal of City Assets	Ward: CW	Year of Completion: 2024	
<p>The objective of this program is to manage the capitalized maintenance costs of the City's wastewater collection assets.</p>			

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Program Information			Financial Details						
Wastewater Services General-Renewal			Class of Estimate:		D) Conceptual				
Dept:	Infrastructure & Water Services Department	Category: Renewal of City Assets	Ward: Multiple		Year of Completion: Various				
Reduces greenhouse gases?		No	2023 Request		597	Projected Yearend Unspent Bal.			0
Builds climate resiliency?		No	Revenues		0	Debt			
The wastewater general program consists of sub-programs and projects that support the entire wastewater collection and treatment programs.			Tax Supported/ Dedicated		0	Tax Supported/ Dedicated Debt		0	
			Rate Supported		597	Rate Supported Debt		0	
			Develop. Charges		0	Develop. Charges Debt		0	
			Gas Tax		0	Gas Tax Debt		0	
			Forecast		2023	2024	2025	2026	
			Authority		597	1,100	1,195	1,100	
			Spending Plan		209	654	1,033	1,143	
			FTEs		0	0	0	0	
			Operating Impact		0	0	0	0	



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Project(s) within a Program Information			\$000's
910909 New Vehicles Wastewater 2023		Class of Estimate: D) Conceptual	250
Category: Renewal of City Assets	Ward: CW	Year of Completion: 2025	
A total of two new vehicles are required for the maintenance activities related to the wastewater collections network. The funding request also includes various upgrades to existing vehicles.			
910917 Wastewater Drainage Roofing 2023		Class of Estimate: D) Conceptual	347
Category: Renewal of City Assets	Ward: CW	Year of Completion: 2027	
The City of Ottawa owns and operates several Wastewater Collection remote facilities in support of the wastewater management program. Roof replacements at the end of their life span, typically on a 20 to 25 year cycle, form part of the planned maintenance of these wastewater facilities and pumping stations. The upkeep and replacement of these roofs is paramount in ensuring that the work environment of these facilities is kept safe, warm and dry.			

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Program Information			Financial Details					
Wastewater Treatment-Renewal			Class of Estimate:		D) Conceptual			
Dept:	Infrastructure & Water Services Department	Category: Renewal of City Assets	Ward: Multiple		Year of Completion: Various			
Reduces greenhouse gases?		No	2023 Request		59,292	Projected Yearend Unspent Bal.		3,975
Builds climate resiliency?		No	Revenues		0	Debt		
The Robert O. Pickard Environmental Center (ROPEC) treats all of the City's wastewater and has a replacement value of over \$1.4 billion. The objective of this program is to manage the lifecycle replacement and capitalized maintenance costs of this asset. Projects under this program will maintain or extend the life of the plant processes and equipment.			Tax Supported/ Dedicated		0	Tax Supported/ Dedicated Debt		0
			Rate Supported		30,592	Rate Supported Debt		28,700
			Develop. Charges		0	Develop. Charges Debt		0
			Gas Tax		0	Gas Tax Debt		0
			Forecast		2023	2024	2025	2026
			Authority		59,292	31,070	50,998	4,600
			Spending Plan		25,533	38,799	52,596	23,245
			FTEs		0	0	0	0
			Operating Impact		0	0	0	0

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Project(s) within a Program Information			\$000's
<b>908892</b>	<b>ROPEC Activated Sludge Screws Overhaul</b>	<b>Class of Estimate: D) Conceptual</b>	<b>1,630</b>
Category: Renewal of City Assets	Ward: 11	Year of Completion: 2023	
<p>Six Archimedes screw pumps are installed at the R.O. Pickard Environmental Centre (ROPEC) to convey return activated sludge (RAS) from the final clarifiers to the aeration process. The pumps are installed within two separate pumping stations (North and South stations), each housing three pumps. A condition assessment identified that the screw pumps were approaching the end of their life and specific elements were showing significant signs of wear and corrosion. The assessment recommended a refurbishment plan to address all six screw pumps, in three phases of construction.</p> <p>Phase 1 and 2 have been completed. Funding is for completion of Phase 3.</p>			
<b>909158</b>	<b>ROPEC RSPS Motor &amp; Drive Rehab</b>	<b>Class of Estimate: A) Pre-Tender</b>	<b>24,900</b>
Category: Renewal of City Assets	Ward: 11	Year of Completion: 2024	
<p>This rehabilitation project is to rehab the Raw Sewage Pumps (RSPs) along with their motors at the Raw Sewage Pump Station (RSPS) at ROPEC. The existing RSPs and motors have reached the end of their useful life, are 45 years old and the flow output of the existing pumps is less than 80% capacity. The scope of this project is to remove and replace six (6) existing raw sewage pumping systems, including pumps, motors and drives and associated ancillary systems, including related civil, architectural, structural, building mechanical, process mechanical, electrical, instrumentation and control work.</p>			
<b>909906</b>	<b>Primary Clarifiers Inlet Gate Replacement</b>	<b>Class of Estimate: A) Pre-Tender</b>	<b>280</b>
Category: Renewal of City Assets	Ward: 11	Year of Completion: 2024	
<p>At the R.O Pickard Environmental Center (ROPEC), fifteen (15) primary clarifiers are used to physically separate and remove the solids and scum from the screened and de-gritted municipal wastewater. Inlet gates installed at the influent ends of the clarifiers are used to isolate individual clarifiers to prevent the sewage from entering the primary clarifiers. Originally installed in the 1960s and 1970s, inlet gates 1 to 12 are severely corroded and need to be replaced. This project is currently in the construction phase. However, additional funding is required to complete the project.</p>			

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Project(s) within a Program Information			\$000's
<b>910915 ROPEC - Sewage Treatment Rehab Prog 2023</b>			<b>28,712</b>
Category: Renewal of City Assets	Ward: 11	Year of Completion: 2029	
<p>Ongoing capital investment is required to ensure efficient process operation, maintain asset functionality through equipment overhauls. Typical projects include asset rehabilitation.</p> <p>Projects for 2023 include Reliability Engineering Projects &amp; Programs, Backflow water supply piping, ROPEC Roofing Program, Return Activated Sludge/ Waste Activated Sludge (RAS/WAS) North and South, Hoisting/Lifting Equipment, Dewatering Centrifuge (DWC) Feed Pumps and Pipeline Recirculation Pumps (PRP) Variable Frequency Drives (VFD), Tunnel between Thickening and Dewatering Building (T&amp;D) and Digesters 1-4 Bldg Concrete Repairs, Contact Tank Concrete Repair, OPS HVAC Units Condensers Replacement, Septage Receiving Tank Rehab Project, Minor Capital Program, Electrical Reliability for ROPEC.</p>			
<b>910918 ROPEC - SCADA Rehab. &amp; Upgrades 2023</b>			<b>1,000</b>
Category: Renewal of City Assets	Ward: CW	Year of Completion: 2028	
<p>The Supervisory Control and Data Acquisition (SCADA) system is a computerized system used by Certified Operators to monitor and control the wastewater treatment system. The Operator monitors the critical components of the treatment process and is able to remotely operate equipment within the treatment plant and remote facilities such as pump stations. The SCADA system is crucial to the operation of the treatment system for monitoring key parameters required under Provincial and Federal legislation. This project will provide sustainable capital re-investment required to ensure efficient process operation, maintain asset functionality through equipment overhauls, adapt to changing regulations and take advantage of new technologies. Projects will be identified on an annual basis through condition assessment and identified opportunities to improve on current process control requirements.</p>			
<b>910919 Lab Equipment Replacement 2023</b>			<b>170</b>
Category: Renewal of City Assets	Ward: 11	Year of Completion: 2026	
<p>The wastewater treatment laboratory requires a new Inductively coupled plasma optical emission spectrophotometer which will be used for the detection of certain chemical elements in water samples.</p>			

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Project(s) within a Program Information			\$000's
910923 ROPEC Capitalized Maintenance 2023		Class of Estimate: D) Conceptual	1,000
Category: Renewal of City Assets	Ward: 11	Year of Completion: 2024	
The objective of this program is to manage the capitalized maintenance costs of the City's wastewater treatment assets.			
911029 ROPEC HVAC Rehab		Class of Estimate: D) Conceptual	1,600
Category: Renewal of City Assets	Ward: 11	Year of Completion: 2026	
Wastewater Treatment Branch operates and maintains all buildings and structures on the ROPEC site. This project is to repair failed HVAC equipment.			

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Program Information			Financial Details						
Wet Weather Program			Class of Estimate:		C) Planning				
Dept:	Infrastructure & Water Services Department	Category: Renewal of City Assets	Ward: Multiple		Year of Completion: Various				
Reduces greenhouse gases?		No	2023 Request		1,000	Projected Yearend Unspent Bal.			0
Builds climate resiliency?		Yes - Major Contribution	Revenues		0	Debt			
<p>The Wet Weather Program is a comprehensive Wet Weather Infrastructure Management Plan (WW-IMP) to develop a coordinated approach to wet weather flow management within the urban area. The WW-IMP will develop programs that will focus on managing the capacity of the sewer systems, reduce the risk of property flooding, and reduce impacts related to combined sewer overflows. It will also look at key program supports, such as design guidelines and climate change adaptation. This program supports the overall implementation objectives of the Ottawa River Action Plan and the Infrastructure Master Plan.</p> <p>Detailed information and costs associated with specific non-integrated components and projects are provided following this program summary page.</p> <p>Forecasts are based on bulk allocations that will be detailed in future budget submissions.</p> <p>The funding allocation enables Asset Management to study the impacts on City assets and level of service provided to rate payers and recommends either further studies or projects to improve the City's Climate change resilience.</p>			Tax Supported/ Dedicated		0	Tax Supported/ Dedicated Debt		0	
			Rate Supported		250	Rate Supported Debt		700	
			Develop. Charges		50	Develop. Charges Debt		0	
			Gas Tax		0	Gas Tax Debt		0	
			Forecast		2023	2024	2025	2026	
			Authority		1,000	3,000	3,100	3,200	
			Spending Plan		500	1,800	2,650	3,130	
			FTEs		0	0	0	0	
			Operating Impact		0	0	0	0	

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Project(s) within a Program Information			\$000's
910892	2023 ORAP Wet Weather IMP	Class of Estimate: C) Planning	1,000
Category: Renewal of City Assets	Ward: CW	Year of Completion: 2025	
This project is required for the development of programs and project implementation needed to support the objectives of the Wet Weather Infrastructure Management Plan (WW-IMP). Once developed, these programs will define and prioritize the specific actions to be implemented, which will increase the capacity of the sewer systems; reduce the risk of property flooding; and reduce impacts related to combined sewer overflows. This project is considered for development charge (DC) funding pursuant to the 2014 Development Charge By-Law 2014-229. This project also includes the installation of Inlet Control Devices (ICDs) into catch basins throughout various areas in the City. The intent is to reduce sewer surcharge during major rainfall events, and to diminish the incidences of basement flooding as a result of sewer surcharge.			

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Program Information			Financial Details						
Wastewater Treatment Regulatory			Class of Estimate:		D) Conceptual				
Dept:	Infrastructure & Water Services Department	Category: Regulatory	Ward: Multiple		Year of Completion: Various				
Reduces greenhouse gases?		No	2023 Request		610	Projected Yearend Unspent Bal.			331
Builds climate resiliency?		No	Revenues		0	Debt			
The objective of this program is to implement all projects that are regulatory in nature, thereby ensuring the City of Ottawa is in compliance with all applicable regulations.			Tax Supported/ Dedicated		0	Tax Supported/ Dedicated Debt		0	
			Rate Supported		610	Rate Supported Debt		0	
			Develop. Charges		0	Develop. Charges Debt		0	
			Gas Tax		0	Gas Tax Debt		0	
			Forecast		2023	2024	2025	2026	
			Authority		610	1,800	0	0	
			Spending Plan		500	1,800	110	0	
			FTEs		0	0	0	0	
			Operating Impact		0	0	0	0	



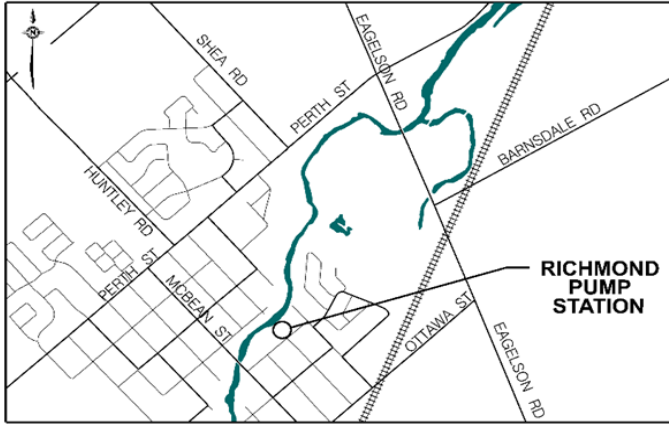
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Project(s) within a Program Information			\$000's
908874	ROPEC Fire Damper Rehab	Class of Estimate: B) Design	610
Category: Regulatory	Ward: 11	Year of Completion: 2023	
Three dual bed carbon vessels draw and treat air from areas within the Raw Sewage Pump Station (RSPS) building. This project is to address three items along the air treatment system; the manifolds that hold the fire dampers welding are at end of life, as are the fire dampers themselves and the entire odour control system that treat foul air within the building should be upgraded to meet National Fire Protection Association (NFPA) 820, reduce odours and increase ventilation.			

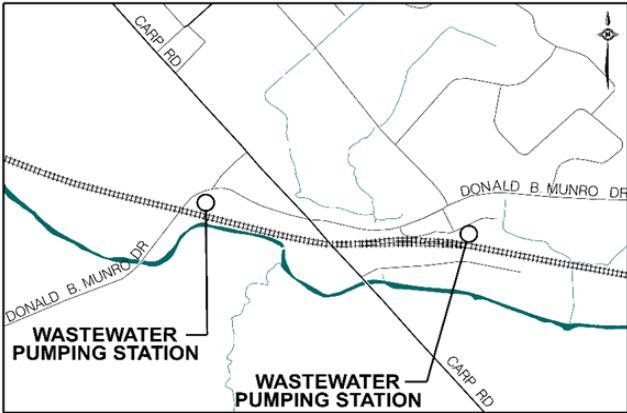
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Project Information				Financial Details						
907463    Stittsville PS Gravity Connect			Class of Estimate:		D) Conceptual					
Dept:	Infrastructure & Water Services Department	Category: Growth	Ward: 6		Year of Completion: 2025					
Reduces greenhouse gases?			Yes - Minor Contribution		2023 Request		1,623	Projected Yearend Unspent Bal.		241
Builds climate resiliency?			No		Revenues		0	Debt		
<p>This project was identified in the 2013 Wastewater Master Plan. Scope includes decommissioning the Stittsville Pump Station and forcemains and constructing a new sewer on Fernbank Road to convey flows from the Stittsville Pump Station and development areas south of Fernbank Road by gravity to the 600 mm Fernbank Trunk Sewer on Cope Drive.</p> <p>This project has a minor contribution to reducing future emissions through pump station decommission.</p>					Tax Supported/ Dedicated		0	Tax Supported/ Dedicated Debt		0
					Rate Supported Develop. Charges		1,136	Rate Supported Debt		0
					Gas Tax		487	Develop. Charges Debt		0
					Forecast		0	Gas Tax Debt		0
					Authority		0			
					Spending Plan		0			
					FTEs		0			
					Operating Impact		0			
							2023	2024	2025	2026
		1,623	0	0	0					
		1,053	487	325	0					

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Project Information				Financial Details					
909992 Richmond Pump Station			Class of Estimate: A) Pre-Tender						
Dept:	Infrastructure & Water Services Department	Category: Growth	Ward: 21	Year of Completion: 2026					
Reduces greenhouse gases?			No	2023 Request		3,332	Projected Yearend Unspent Bal.		12,711
Builds climate resiliency?			Yes - Minor Contribution	Revenues	0	Debt			
<p>To accommodate anticipated new development in the Village of Richmond there is a need to upgrade and renew the existing wastewater pumping station. Detailed design work for the Richmond wastewater pumping station upgrade/renewal is completed and the project has been tendered. Previous budget authority has been approved for this project but is not sufficient to cover the current project capital costs based on increased construction costs.</p> <p>This project is to increase the capacity of the pump station to accommodate future growth. This project helps reduce climate risks from increased precipitation volume and intensity.</p>				Tax Supported/ Dedicated	0	Tax Supported/ Dedicated Debt		0	
				Rate Supported Develop. Charges	1,466	Rate Supported Debt		0	
					1,866	Develop. Charges Debt		0	
				Gas Tax	0	Gas Tax Debt		0	
				Forecast		2023	2024	2025	2026
				Authority	3,332	0	0	0	
				Spending Plan	9,666	5,000	1,000	377	
				FTEs	0	0	0	0	
				Operating Impact	244	0	0	0	
									

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Project Information			Financial Details						
910076 Carp Wastewater PS Upgrade/Overflow			Class of Estimate: C) Planning						
Dept:	Infrastructure & Water Services Department	Category: Growth	Ward: 5	Year of Completion: 2024					
Reduces greenhouse gases?			No	2023 Request		1,058	Projected Yearend Unspent Bal.		4,082
Builds climate resiliency?			Yes - Minor Contribution	Revenues		476	Debt		
<p>The Village of Carp Wastewater Pumping Stations were designed and constructed in 1992 -1994, prior to the development of the current City of Ottawa Sewer Design Guidelines. The stations do not have emergency overflows, which are necessary to protect homes from basement flooding during extreme wet weather conditions or major system failures. This 2023 budget request is to fund construction of the main pumping station overflow and interim improvements to the station to provide sufficient capacity for short-term growth in the village.</p> <p>This project is to increase the capacity of the pump station to accommodate future growth. This project helps reduce climate risks from increased precipitation volume and intensity.</p>				Tax Supported/ Dedicated		0	Tax Supported/ Dedicated Debt		0
				Rate Supported Develop. Charges		582	Rate Supported Debt		0
						0	Develop. Charges Debt		0
				Gas Tax		0	Gas Tax Debt		0
				Forecast		2023	2024	2025	2026
				Authority		1,058	0	0	0
				Spending Plan		2,529	2,317	294	0
				FTEs		0	0	0	0
				Operating Impact		0	0	0	0
									

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Project Information			Financial Details						
910906	2023 Pump Stations Capacity Increase		Class of Estimate:		C) Planning				
Dept:	Infrastructure & Water Services Department	Category: Growth	Ward: 4, 19, 21, 22		Year of Completion: 2026				
Reduces greenhouse gases?		No	2023 Request		5,120	Projected Yearend Unspent Bal.			0
Builds climate resiliency?		Yes - Minor Contribution	Revenues		0	Debt			
<p>This project was identified in the Infrastructure Master Plan and is needed to provide sufficient wastewater pumping capacity to meet the needs of development at various locations across the City. This project includes capacity upgrade for 5 Pump Stations: Briar Ridge PS, Tenth Line PS, Leitrim PS, Forest Valley PS, and Manotick PS. The project will increase the 5 Pump Stations capacity from the existing installed capacity to the full rated capacity in accordance with the original station designs. The work at these 5 stations is phased over time. This budget request will cover the remaining design work and the first phases of construction.</p> <p>This project is to increase the capacity of the pump station to accommodate future growth. This project helps reduce climate risks from increased precipitation volume and intensity.</p>			Tax Supported/ Dedicated		0	Tax Supported/ Dedicated Debt		0	
			Rate Supported		0	Rate Supported Debt		0	
			Develop. Charges		5,120	Develop. Charges Debt		0	
			Gas Tax		0	Gas Tax Debt		0	
			Forecast		2023	2024	2025	2026	
			Authority		5,120	4,909	0	0	
			Spending Plan		2,560	3,991	2,497	982	
			FTEs		0	0	0	0	
			Operating Impact		0	0	0	0	

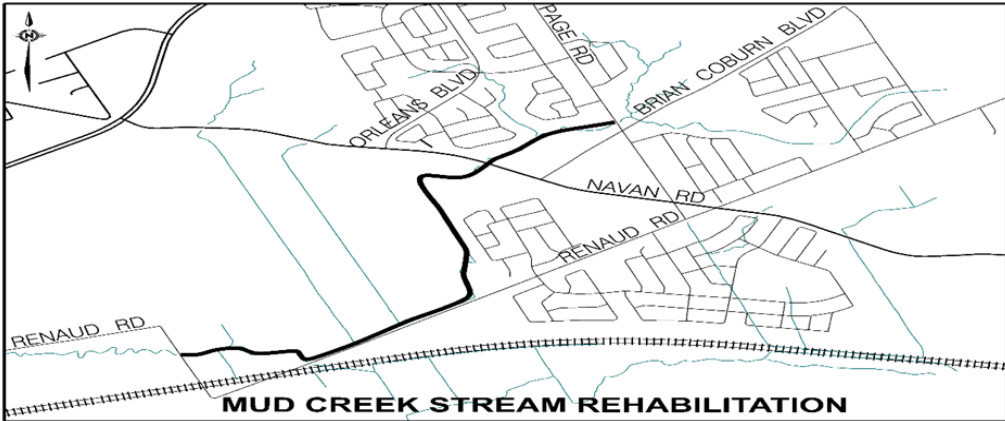
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Service Area: Stormwater Services											
Category	2023 Draft Capital Budget	Revenues	Tax Supported/ Dedicated Reserves	Rate Supported Reserves	Develop. Charges	Gas Tax	Debt				
							Tax/ Dedicated	Rate	Develop. Charges	Gas Tax	Total Debt
Renewal of City Assets	33,168	0	0	22,668	0	0	0	10,500	0	0	10,500
Growth	688	0	0	344	344	0	0	0	0	0	0
Regulatory	5,050	4,850	0	200	0	0	0	0	0	0	0
Service Enhancements	1,058	0	0	1,058	0	0	0	0	0	0	0
Total	39,964	4,850	0	24,270	344	0	0	10,500	0	0	10,500

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Project Information			Financial Details				
909356    2020 Stormwater Management Retrofit		Class of Estimate:		Not Applicable			
Dept:	Infrastructure & Water Services Department	Category: Renewal of City Assets	Ward: CW	Year of Completion: 2021			
Reduces greenhouse gases?		No	2023 Request	1,058	Projected Yearend Unspent Bal.		0
Builds climate resiliency?		Yes - Minor Contribution	Revenues	0	Debt		
<p>These funds will be applied to implementing: i) the Pinecrest Creek/Westboro Stormwater Management Retrofit Study; ii) the Eastern Subwatersheds Stormwater Management Retrofit Study; and iii) other Stormwater Management (SWM) retrofit opportunities outside these two study areas. These studies, and subsequent implementation, are a component of the Ottawa River Action Plan and are needed to improve stormwater management in older neighbourhoods and reduce the on-going impacts of uncontrolled/untreated urban runoff on the Ottawa River and its tributaries. In addition, this funding will support Low Impact Development (LID) guidelines and tools as well as supporting the operation and maintenance of LID pilot retrofits in City rights-of-way and on City properties.</p> <p>This project has a minor contribution to reducing climate risks from increased precipitation volume and intensity.</p> <p>Year of completion: 2024.</p>			Tax Supported/ Dedicated	0	Tax Supported/ Dedicated Debt		0
			Rate Supported	558	Rate Supported Debt		500
			Develop. Charges	0	Develop. Charges Debt		0
			Gas Tax	0	Gas Tax Debt		0
			Forecast	2023	2024	2025	2026
			Authority	1,058	2,698	2,750	4,488
Spending Plan	529	1,666	2,396	3,609			
FTEs	0	0	0	0			
Operating Impact	0	0	0	0			

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Project Information			Financial Details				
<b>909748</b>	<b>Mud Creek Stream Renewal</b>		<b>Class of Estimate: D) Conceptual</b>				
Dept:	Infrastructure & Water Services Department	Category: Renewal of City Assets	Ward: 19	Year of Completion: 2025			
Reduces greenhouse gases?			No	<b>2023 Request</b>		<b>3,521</b>	Projected Yearend Unspent Bal. 474
Builds climate resiliency?			Yes - Minor Contribution	Revenues	0		Debt
<p>Reconstruction of portions of Mud Creek is required to mitigate the impacts of existing and future development in the watershed, including the East Urban Community Mixed Use Centre Community Design Plan area. The project will be funded through an Area Specific Development Charge and the City's stormwater rate. This request is for the share of project costs to be covered by the stormwater rate.</p> <p>Rehabilitating the stream will build resiliency to erosion caused by increasing precipitation.</p>			Tax Supported/ Dedicated	0		Tax Supported/ Dedicated Debt	0
			Rate Supported Develop. Charges	3,521		Rate Supported Debt	0
			Gas Tax	0		Develop. Charges Debt	0
				0		Gas Tax Debt	0
			<b>Forecast</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>
			Authority	3,521	0	0	0
			Spending Plan	2,235	1,056	704	0
			FTEs	0	0	0	0
			Operating Impact	0	124	0	0
							



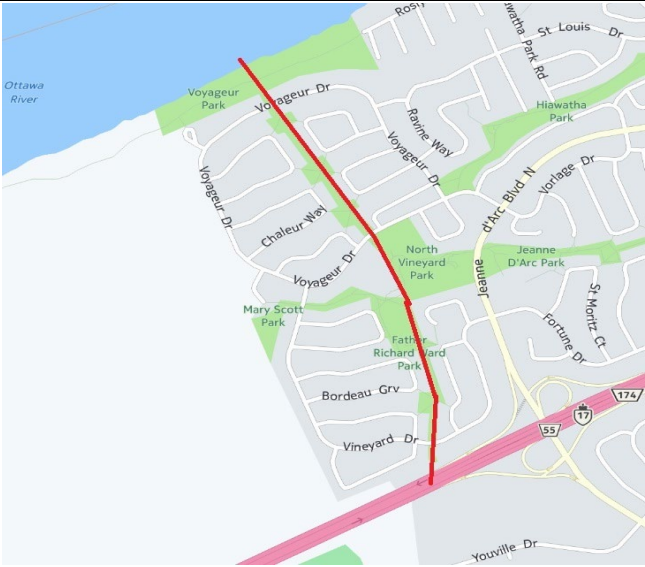
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Project Information			Financial Details						
910817 2023 Flood Plain Mapping			Class of Estimate:		Not Applicable				
Dept:	Infrastructure & Water Services Department	Category: Renewal of City Assets	Ward: CW		Year of Completion: 2025				
Reduces greenhouse gases?		No	2023 Request		582	Projected Yearend Unspent Bal.			0
Builds climate resiliency?		Yes - Major Contribution	Revenues		0	Debt			
<p>The City has a multi-year agreement to update its flood plain mapping with the three Conservation Authorities: Rideau Valley, South Nation and Mississippi. The assessment uses contemporary methods in hydrologic and hydraulic analysis, historical records of stream flow and/or water level, and the most up-to-date topographical data to produce new or updated estimates of the 1:100 year flood lines for specific watercourses. This budget request is needed to comply with the planned cost-sharing as described in the contribution agreement and to finance other flood plain mapping work. It is anticipated that new or updated flood plain mapping studies will also be required to support urban boundary expansion approved in the new Official Plan. This budget request also includes costs for related study work to support and inform regulation mapping, which are not covered in the contribution agreement.</p> <p>This Floodplain Mapping Program has a major contribution to reducing climate risks from increased precipitation volume and intensity hazard. Flood plain mapping using various return period events will be prepared by the three conservation authorities in collaboration with the City of Ottawa. Development is generally prohibited in the 1:100 year flood plain. City New Official Plan uses the 1:350 year floodplain mapping as a climate change scenario to determine climate change vulnerable areas. Risk mitigation measures for new development within a climate change vulnerable area will be required as part of the development planning.</p>			Tax Supported/ Dedicated		0	Tax Supported/ Dedicated Debt		0	
			Rate Supported		382	Rate Supported Debt		200	
			Develop. Charges		0	Develop. Charges Debt		0	
			Gas Tax		0	Gas Tax Debt		0	
			Forecast		2023	2024	2025	2026	
			Authority		582	345	363	460	
			Spending Plan		291	347	401	408	
			FTEs		0	0	0	0	
			Operating Impact		0	0	0	0	

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Program Information			Financial Details											
Stormwater Collection Rehabilitation			Class of Estimate:		D) Conceptual									
Dept:	Infrastructure & Water Services Department	Category: Renewal of City Assets	Ward: Multiple		Year of Completion: Various									
Reduces greenhouse gases?			No		2023 Request		4,050		Projected Yearend Unspent Bal.		502			
Builds climate resiliency?			Yes - Minor Contribution		Revenues		0		Debt					
<p>The Stormwater Collection Rehabilitation Program addresses annual rehabilitation and operational capital requirements for the City's stormwater collection system in order to preserve and extend the life of the infrastructure, reduce flooding occurrences, and prevent failures requiring more extensive reconstruction.</p> <p>The program is focused on:</p> <ul style="list-style-type: none"><li>• Flood mitigation measures.</li><li>• Proactive lifecycle renewal and rehabilitation projects.</li><li>• Level of service initiatives.</li><li>• System improvements and optimization.</li><li>• Miscellaneous upgrades and rehabilitation to support growth demand.</li></ul> <p>The funding requests for stormwater costs coordinated with roadway, wastewater or water rehabilitation are included within the Integrated Rehabilitation Programs. Program funding requirements to support renewal needs are defined in the Long Range Financial Plan.</p> <p>Detailed information and costs associated with specific stand-alone (non-integrated) components and projects are provided following this program summary page. Forecasts are based on bulk allocations that will be detailed in future budget submissions.</p> <p>Stormwater improvement projects increase or maintain existing stormwater assets level of service to prevent future flooding and guard against extreme precipitation volume and intensity.</p>					Tax Supported/ Dedicated		0		Tax Supported/ Dedicated Debt		0			
					Rate Supported		3,050		Rate Supported Debt		1,000			
					Develop. Charges		0		Develop. Charges Debt		0			
					Gas Tax		0		Gas Tax Debt		0			
					Forecast		2023		2024		2025		2026	
					Authority		4,050		43,480		1,550		1,550	
					Spending Plan		2,025		22,955		14,629		9,936	
FTEs		0		0		0		0						
Operating Impact		0		0		0		0						

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Project(s) within a Program Information			Location/Description	\$000's
<b>908618 CWWF Convent Glen North Storm Sewer</b>			<b>Class of Estimate: D) Conceptual</b>	<b>2,500</b>
Category: Renewal of City Assets	Ward: 1	Year of Completion: 2026		
<p>This project will finalize the design for the rehabilitation of the trunk storm sewer from the north side of RR174 to the outlet at the Ottawa River. The storm sewer is located west of Jeanne D'Arc Blvd and runs behind homes and under pathways within City owned parcels. Trenchless methods of rehabilitation is recommended for this deep storm sewer.</p>				

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Project(s) within a Program Information			\$000's
910897	2023 Storm & Surface Water Rehab	Class of Estimate: D) Conceptual	1,500
Category: Renewal of City Assets	Ward: CW	Year of Completion: 2025	
This program provides for the rehabilitation of storm and surface water features, including creeks, rivers, ravines, slope stabilization and flood mitigation measures at various locations. The funding is for all project related costs which may include investigation, design, construction and property acquisition.			
910898	2023 Ditch Alterations	Class of Estimate: D) Conceptual	50
Category: Renewal of City Assets	Ward: CW	Year of Completion: 2024	
The funding provides for the assessment and reinstatement of existing ditch networks. Works can include: study, design, survey, inspection or reconstruction of existing ditches.			

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Program Information			Financial Details					
Stormwater Management Facilities			Class of Estimate: D) Conceptual					
Dept:	Infrastructure & Water Services Department	Category: Renewal of City Assets	Ward: Multiple		Year of Completion: Various			
Reduces greenhouse gases? No			2023 Request 8,200		Projected Yearend Unspent Bal. 0			
Builds climate resiliency? No			Revenues 0		Debt			
<p>Stormwater Management (SWM) facilities serve to protect homes, businesses and the road network from flooding and also mitigate erosion and water quality impacts from the growing city. Currently, the most visible infrastructure the City owns, operates and maintains in this category encompasses over 250 pond facilities. While most SWM ponds appear very natural and simple, these are complicated engineered facilities that include significant hard elements such as concrete hydraulic structures, large valves and flow control gates. Other assets the City is required to maintain under this category include 100 underground treatment tanks, and 25 specialty treatment systems (including 3 right-of-way Low Impact Development gardens). The asset value for the Stormwater Management facilities is estimated at \$460 million.</p>			Tax Supported/ Dedicated 0		Tax Supported/ Dedicated Debt 0			
			Rate Supported 6,400		Rate Supported Debt 1,800			
			Develop. Charges 0		Develop. Charges Debt 0			
			Gas Tax 0		Gas Tax Debt 0			
			Forecast		2023	2024	2025	2026
			Authority		8,200	2,700	3,400	2,890
			Spending Plan		2,870	4,635	4,045	3,082
			FTEs		0	0	0	0
			Operating Impact		0	0	0	0

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Project(s) within a Program Information			\$000's
910867 Stormwater Mgmt: Rehab&Enviro Compl 2023		Class of Estimate: D) Conceptual	4,700
Category: Renewal of City Assets	Ward: CW	Year of Completion: 2025	
The City owns, operates and maintains over 350 stormwater facilities (including underground treatment tanks) for the management of stormwater runoff. This number is increasing at the rate of 5-10 per year. The facilities provide flow attenuation and water quality treatment, ensuring that stream corridors and water quality are not degraded. In order to ensure combined compliance with environmental regulations and Ministry of the Environment, Conservation and Parks (MECP) Certificate of Approval discharge criteria, these facilities require maintenance activities such as the removal and disposal of accumulated sediment, along with major repair or rehabilitation of structures and flow regulation equipment. Specialized monitoring activities to optimize facility performance are conducted on specific facilities to assist the City in meeting the compliance criteria.			
910873 Linear Storm System Improvements 2023		Class of Estimate: D) Conceptual	3,500
Category: Renewal of City Assets	Ward: CW	Year of Completion: 2025	
To fund work completed by wastewater operations staff to rehabilitate stormwater assets. This could include work on any of the City's catch basins, sewers, manholes, outfalls or stormwater pumping stations.			

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Program Information			Financial Details											
Structures-Stormwater			Class of Estimate:		C) Planning									
Dept:	Infrastructure & Water Services Department	Category: Renewal of City Assets	Ward: Multiple		Year of Completion: Various									
Reduces greenhouse gases?			No		2023 Request		15,757		Projected Yearend Unspent Bal.		1,105			
Builds climate resiliency?			No		Revenues		0		Debt					
<p>The Structures Stormwater Program provides for condition assessments, preventative maintenance, rehabilitation and reconstruction works undertaken on the City's existing drainage culverts. Program funding requirements to support renewal needs are defined in the Long Range Financial Plan.</p> <p>Detailed information and costs associated with specific components and projects directly follow this program summary page.</p> <p>Forecasts are based on bulk allocations that will be detailed in future budget submissions.</p>					Tax Supported/ Dedicated		0		Tax Supported/ Dedicated Debt		0			
					Rate Supported		8,757		Rate Supported Debt		7,000			
					Develop. Charges		0		Develop. Charges Debt		0			
					Gas Tax		0		Gas Tax Debt		0			
					Forecast		2023		2024		2025		2026	
					Authority		15,757		15,155		11,746		17,149	
					Spending Plan		7,879		12,304		13,571		15,129	
					FTEs		0		0		0		0	
					Operating Impact		0		0		0		0	

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Project Information			Location/Description	\$000's
910448 2022 Drainage Culverts - CW			Class of Estimate: B) Design	8,864
Category: Renewal of City Assets		Ward: CW	Year of Completion: 2024	
The City has a significant inventory of drainage culverts ranging from small diameter roadway culverts (typically non-urbanized ditch drainage under roadways and intersections) to larger span drainage structures.This project is for construction work (year 2 funding) to be delivered by IS Design & Construction. Design was completed in 2022.				
Ward	Project	Description		
10	Albion Rd Culvert [220450]	0.05 km S of Lester Rd		
20	Anderson Rd Culvert [228940]	0.7 km south of Piperville Rd		
5	Carp Rd Culvert [548270]	1.20 km N of Norma Lane		
21	McCordick Rd Culvert on Hill MD [868990]	0.17 km N of Harbison Rd		
21	Rideau Valley N Culvert on McIntye-Scobie	1.80 km N of Roger Stevens Dr		
20	South Gower Boundary Rd Culvert on Backen	1.35 km S of River Rd		
4	Legget Dr Twin Culvert on Kizzel MD [640560-	0.10 km west of Herzberg Rd		
19	McNeely Rd Twin Culvert [890620-1/2]	3.60 km N of Russell Rd		
16	Prince of Wales Dr Culvert [A011010]	1.30 km north of Baseline Rd		
21	Old Richmond Rd Culvert [A111253]	0.88 km east of Eagleson Rd		
21	Old Richmond Rd Culvert [A111255]	0.98 km east of Eagleson Rd		
8	Old Richmond Rd Culvert [A111570]	0.36 km north of West Hunt Club Rd		
3, 9	Cedarview Rd Culvert [A111910]	0.21 km south of Cedarhill Dr		
9	Cedarview Rd Culvert [A111940]	0.30 km north of West Hunt Club Rd		
20	Boundary Rd Culvert [A222010]	1.30 km north of Thunder Rd		
20	Mitch Owens Rd Culvert [A222180]	0.64 km east of Farmers Way		
20	Mitch Owens Rd Culvert [A222300]	0.99 km east of Yorks Corners Rd		
20	Mitch Owens Rd Culvert [A222320]	0.18 km west of Hall Rd		
5	Carp Rd Culvert [A431150]	0.18 km north of Thomas Dolan Pkwy		
5, 34	Panmure Rd Culvert [A432020]	0.31 km east of Rock Cody Tr		
5	March Rd Culvert [A542075]	0.43 km west of Huntmar Dr		
21	Dwyer Hill Rd Culvert [A751070]	0.68 km south of Jock Trail		
21	Franktown Rd Culvert [A752100]	0.2 km east of Dwyer Hill Rd		
21	Donnelly Dr Culvert [A862020]	0.11 km east of Gilroy Rd		
21	Roger Stevens Dr Culvert [A862890]	5.25 km east of Dwyer Hill Rd		



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Project Information			Location/Description	\$000's
910448 2022 Drainage Culverts - CW			Class of Estimate: B) Design	8,864
Category: Renewal of City Assets		Ward: CW	Year of Completion: 2024	
2022 Drainage Culverts CW - Continued				
Ward	Project	Description		
21	Roger Stevens Dr Culvert [A864060]	1.00 km west of Malakoff Rd		
21	Prince of Wales Dr Culvert [A871670]	0.05 km north of Century Rd W		
20	Victoria St Culvert [A882790]	0.64 km east of 8th Line Rd		
20, 31	Russland Rd Culvert [A892160]	0.28 km west of Dunning Rd		
20, 31	Russland Rd Culvert [A892200]	0.01 km west of Saumure Rd		
16	Wilshire Ave Culvert [L012360]	0.01 km west of Morley Blvd		
18	Bourassa St Culvert [L050810]	0.01 km east of Gladwin Cres		
18	Old Innes Rd Culvert [L050830]	0.05 km west of Bantree St		
3	Cambrian Rd Culvert [L112310]	0.01 km east of Borrisokane Rd		
3	Woodsia Ave Culvert [L112823]	0.01 km west of Cedarview Rd		
22	Ashdale Ave Culvert [L117410]	0.01 km south of Fallowfield Dr		
20	Old Mill Way Culvert [L220360]	0.01 km west of River Rd		
20	Old Mill Way Culvert [L220370]	0.01 km west of River Rd		
21	South River Dr Culvert [L221020]	0.01 km west of Van Vliet Rd		
21	Long Island Rd Culvert [L221045]	0.20 km north of Sunrise Ave		
20	Piperville Rd Culvert [L222790]	0.66 km east of Farmers Way		
20	Piperville Rd Culvert [L222830]	0.12 km west of Boundary Rd		
5	Machardy Rd Culvert [L431390]	1.80 km south of Galetta Side Rd		
5	Diamondview Rd Culvert [L433340]	1.01 km north of Thomas A. Dolan Pkwy		
5	Diamondview Rd Culvert [L433400]	0.62 km south of Baird Side Rd		
5	Diamondview Rd Culvert [L433420]	0.43 km south of Baird Side Rd		
5	Peter Robinson Rd Culvert [L541430]	0.01 km north of March Rd		
5	Bearhill Rd Culvert [L543210]	0.15 km north of Sierra Woods		
5	Shanna Rd Culvert [L543430]	0.65 km south of Panmure Rd		
5	Vaughan Side Rd Culvert [L544320]	0.11 km west of Bearhill Rd		

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Project Information			Location/Description	\$000's
910448 2022 Drainage Culverts - CW			Class of Estimate: B) Design	8,864
Category: Renewal of City Assets		Ward: CW	Year of Completion: 2024	
2022 Drainage Culverts CW - Continued				
Ward	Project	Description		
5	Vaughan Side Rd Culvert [L544330]	0.50 km west of Forest Edge Rd		
5	John Aselford Drwy Culvert [L646750]	1.34 km west of Marchurst Rd		
5	John Aselford Drwy Culvert [L646770]	0.84 km west of Marchurst Rd		
5	John Aselford Drwy Culvert [L646830]	0.44 km west of Marchurst Rd		
5	John Aselford Drwy Culvert [L646890]	0.04 km west of Marchurst Rd		
5	Fifth Line Rd Culvert [L649370]	0.30 km south of Thomas A. Dolan Pkwy		
6	Norway Spruce St Culvert [L755450]	0.09 km North of Porter St		
6	Woodwind Cres Culvert [L758613]	0.04 km east of Fringewood Dr		
21	Marina Dr Culvert [L874005]	0.01 km east of Rideau Valley Dr N		
21	Marina Dr Culvert [L874170]	0.01 km south of Bunker Rd		
21	Phelan Rd W Culvert [L874550]	0.01 km west of Prince of Wales Dr		
21	Colony Heights Rd Culvert [L877060]	0.07 km north of Highcroft Dr		
20, 32	Marionville Rd Culvert on McLean Skuce MD	0.33 km east of 8th Line Rd		
20	Sale Barn Rd Culvert [L885500]	0.02 km south of Parkway Rd		
20	Sale Barn Rd Culvert [L885510]	0.01 km north of Parkway Rd		
20	Herberts Corners Rd Culvert [L886030]	0.13 km west of Manotick Station Rd		
20	8th Line Rd Culvert [L887207]	0.98 km south of Marvelville Rd		
20	Entrepreneur Rd Culvert [L892260]	0.01 km east of Boundary Rd		
1	West St Culvert [L895194]	0.01 km north of Regional Rd 174		
1	Lough Dr Culvert [L895780]	0.01 km north of Wilhaven Dr		
1	Morin Rd Culvert [L895880]	0.01 km north of Hwy 174		
1, 19	Wilhaven Dr Culvert [L898390]	0.01 km west of Lough Dr		

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Project Information			Location/Description	\$000's
910822 2023 Drainage Culverts - CW			Class of Estimate: C) Planning	3,717
Category: Renewal of City Assets		Ward: CW	Year of Completion: 2025	
The City has a significant inventory of drainage culverts ranging from small diameter roadway culverts (typically non-urbanized ditch drainage under roadways and intersections) to larger span drainage structures. This project is for design work (year 1 funding) to be delivered by IS Design & Construction.				
Ward	Project	Description		
21	William McEwen Dr Twin Culvert on Thomas	1.65 km north of Bankfield Rd		
22	Albion Rd Findlay Creek MD Culvert [228530]	4.95 km N of Mitch Owens Dr RF Con 3 Lot 18		
5	Torbolton Ridge Rd Culvert [330360]	2.10 km N of Kinburn Side Rd Con 1/2 Lot 14		
5	Vances Side Rd Culvert [338090]	0.08 km east of Dunrobin Rd		
5	Ritchie Side Rd Culvert [438710]	0.45 km W of Walker Bradley		
5	Richardson Side Rd Culvert [540390]	2.55 Km W of Huntmar Rd Con 2 Lot 5/6		
5	Manion Heights Cres Culvert [540930]	0.56 km west from Corkery Rd		
5	Dunrobin Rd Culvert [648190]	1.60 km south of Thomas A. Dolan Pky		
5	Dunrobin Rd Culvert [648880]	1.04 km N of Murphy Side Rd		
21	Franktown Rd Culvert on Karl MD [758210]	0.65 km W of Dwyer Hill Rd		
21	Fernbank Rd Culvert [758800]	2.49 km E of Jinkinson Rd		
21	Harnett Rd Culvert [868480]	0.05 km N of Donnelly Dr		
21	Third Line Rd N on Wright-Eastman MD Culvert	0.22 km N of Carsonby Rd W		
20	Blackcreek Rd Culvert on Fine MD [880240]	2.00 km N of Pana Rd		
20	Cooper Hill Rd Culvert [880250]	0.02 km west of Blackcreek Rd		
20	Cooper Hill Rd Culvert on Fine MD [880260]	0.75 km W of Boundary Rd [CR41]		
20	9th Line Rd Culvert [880350]	0.70 km north of Marvelville Rd		
20	Forest Green Rd Culvert [880380]	0.01 km east of 8th Line		
20	Bank St Culvert on Stone School Road	0.04 km S of Stone School Rd		
20	Bank St Culvert[888630]	0.87 km N of Stone School Rd		
20	John Quinn Rd Culvert [888785]	0.47 km S of Mitch Owens Rd		
19	Sarsfield Rd Culvert [890120]	0.49 km S of French Hill Rd		
19	Magladry Rd Culvert [890640]	0.16 km W of Sarsfield Rd		
1	Regional Road 174 Culvert [898690]	0.08 km east of Old Montreal Rd		
10	River Rd Culvert [A221350]	0.30 km south of Balmoral Dr		

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Project Information			Location/Description	\$000's
910822 2023 Drainage Culverts - CW			Class of Estimate: C) Planning	3,717
Category: Renewal of City Assets		Ward: CW	Year of Completion: 2025	
2023 Drainage Culverts CW - Continued				
Ward	Project	Description		
10	River Rd Culvert [A221370]	0.10 km south of Balmoral Dr		
20	Limebank Rd Culvert on Keith Moodie (Also	0.75 km north of Mitch Owens Rd		
19	Navan Rd Culvert [A224400]	0.01 km east of Page Rd		
19	Navan Rd Culvert [A224420]	0.15 km east of Renaud Rd		
19	Navan Rd Culvert [A224440]	0.55 km east of Renaud Rd		
19	Navan Rd Culvert [A224480]	0.95 km east of Renaud Rd		
20	Victoria St Ramp Culvert [A882750]	0.11 km west of Victoria St		
20	Russell Rd Culvert [A892240]	0.75 km east of Boundary Rd		
19, 20	Russell Rd Culvert [A892440]	0.21 km west of Russellet Rd		
20	Tintern Dr Culvert on Osgoode Gardens-Cedar	0.07 km south of Woodstream Dr		
20	8th Line Rd Culvert [L887200]	0.53 km north of Marvelville Rd		
20	Fetterly Dr Culvert [L887704]	0.07 km west of South Branch St		
20	Parkway Rd Culvert [L888230]	0.22 km west of Miles Cres		
20, 31	Burton Rd Culvert on East Branch of Wood	0.48 km west of Corduroy Rd		
20, 31	Burton Rd Culvert [L892015]	0.02 km west of Corduroy Rd		
19	Devine Rd Culvert [L892170]	0.25 km east of Clayton Rd		
19	Division St Culvert [L892318]	0.01 km east of Buckland Rd		
19	Magladry Rd Culvert [L894470]	0.53 km south of Heuvelmans Rd		
19	Magladry Rd Culvert on George Birch MD	0.01 km east of Birchgrove Rd		
1	Quigley Hill Rd Culvert [L895095]	0.28 km north of Cumberland Ridge Dr		
19	Langlade Rd Culvert [L897500]	0.09 km north of Russell Rd		
19	Birchgrove Rd Culvert on George Birch MD	0.01 km north of Magladry Rd		
5	Thomas A. Dolan Pky Culvert [A332240]	0.08 km east of Sixth Line Rd		
5	Galetta Side Rd Culvert [A332440]	0.01 km east of Stonecrest Rd		
5	Galetta Side Rd Culvert [A332460]	0.45 km west of Woodkilton Rd		

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Project Information			Location/Description	\$000's
910822 2023 Drainage Culverts - CW			Class of Estimate: C) Planning	3,717
Category: Renewal of City Assets		Ward: CW	Year of Completion: 2025	
2023 Drainage Culverts CW - Continued				
Ward	Project	Description		
5	Shaw Rd Culvert [A434700]	0.03 km east of Lunney Rd		
5	Shaw Rd Culvert [A434720]	0.05 km east of Lunney Rd		
5	Shaw Rd Culvert [A434740]	0.01 km west of Ottawa Road 29		
5	Dunrobin Rd Culvert [A641210]	0.71 km south of Thomas Dolan Pkwy		
21	Dwyer Hill Rd Culvert [A861070]	1.07 km north of Paden Rd		
21	Dwyer Hill Rd Culvert [A861310]	1.56 km south of Roger Stevens Rd		
21	Dwyer Hill Rd Culvert [A861390]	1.16 km north of Roger Stevens Rd		
21	Dwyer Hill Rd Culvert [A861470]	2.64 km north of Roger Stevens Rd		
21	Dwyer Hill Rd Culvert [A861510]	3.06 km north of Roger Stevens Rd		
21	Dwyer Hill Rd Culvert [A861530]	3.36 km north of Roger Stevens Rd		
21	Dwyer Hill Rd Culvert [A861590]	0.88 km south of O'Neil Rd		
21	Fourth Line Rd Culvert [A871040]	0.15 km north of Dilworth Rd		
9	Riverbrook Rd Culvert [L113170]	0.08 km north of Siskin Crt		
8	Timm Dr Culvert [L114020]	0.09 km west of Haanel Dr		
5, 35	Connifer Lane Culvert [L438840]	0.07 km east of Herrick Dr		
5	Spruce Ridge Rd Culvert [L543630]	0.17 km north of Midvale Dr		
21, 34	Ashton Station Rd Culvert [L751310]	1.38 km north of McLinton Rd		
21, 34	Ashton Station Rd Culvert [L751320]	1.40 km north of McLinton Rd		
21, 34	Ashton Station Rd Culvert [L751325]	1.41 km north of McLinton Rd		
21	Jock Trl Culvert [L752210]	0.01 km east of Dwyer Hill Rd		
21	Garvin Rd Culvert [L754260]	1.00 km west of Huntley Rd		
21	Bleeks Rd Culvert [L756010]	0.01 km east of Dwyer Hill Rd		
21	Shea Rd Culvert [L757030]	0.01 km north of Garvin Rd		
21	Fernbank Rd Culvert [L758030]	0.23 km east of Jinkinson Rd		

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Project Information			Location/Description	\$000's
910826 2023 Drainage Culverts - Other			Class of Estimate: C) Planning	527
Category: Renewal of City Assets		Ward: CW	Year of Completion: 2025	
The City has a significant inventory of small diameter roadway drainage culverts (typically non-urbanized ditch drainage under roadways and intersections). This program provides authority to address the most critical needs for this asset group. This project is for work to be delivered by other City departments.				
Ward	Project	Description		
10	Orville Kemp St Culvert [L222925]	0.01 km east of Melva Ave		
20	Dolman Ridge Rd Culvert [L224540]	1.10 km east of Anderson Rd		
2	Dusserre St Culvert [L226050]	0.01 km south of Cousineau St		
19	Brennan Park Dr Culvert [L893786]	0.01 km east of Maple Glen Crt		
19	Randboro Cres Culvert [L894908]	0.01 km south of Villeroy Cres		
19	Dessaint St Culvert [L895480]	0.01 km north of ST. Hughes Crt		
19	Sarsfield Rd Culvert [L895650]	0.12 km north of Dessaint St		
19	Regimbald Rd Culvert [L896260]	0.80 km west of Dunning Rd		
19	Regimbald Rd Culvert [L896320]	0.15 km west of Sarsfield Rd		
19	Regimbald Rd Culvert [L896350]	0.01 km east of Sarsfield Rd		
1	Green Pine Crt Culvert [L897465]	0.40 km east of Beckett's Creek Rd		
21	Riverside Cres Culvert [L220050]	0.01 km south of North Riverside Dr		
21	Mill Pond Lane Culvert [L861680]	0.01 km north of Donnelly Dr		
21	McCordick Rd Culvert [L867170]	0.03 km south of Pierce Rd		
21	McCordick Rd Culvert [L867310]	0.15 km north of Pollock Rd		
21	Farmstead Ridge Culvert [L870040]	0.18 km south of Church St		
21	Greenline Rd Culvert [L871130]	0.03 km south of Reeve Craig Rd S		
21	Lockhead Rd W Culvert [L872630]	1.02 km east of Fourth Line Rd		
21	Rideau St N Culvert [L872765]	0.01 km south of Commodore Dr		
21	Second Line Rd S Culvert [L873030]	0.86 km south of Roger Stevens Dr		
21	Carsonby Rd W Culvert [L876110]	0.48 km east of Fourth Line Rd		
20	White Spruce St Culvert [L881310]	0.01 km south of Philip St		
20	Greely West Dr Culvert [L883640]	0.01 km east of Cornfield Cres		
20	Gerben St Culvert [L884420]	0.16 km east of Johannes St		
20	Empire Grove St Culvert [L886794]	0.01 km west of Stagecoach Rd		

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Project Information		Location/Description	\$000's
910826 2023 Drainage Culverts - Other		Class of Estimate: C) Planning	527
Category: Renewal of City Assets	Ward: CW	Year of Completion: 2025	
2023 Drainage Culverts Other - Continued			
Ward	Project	Description	
20	Stanmore St Culvert [L886795]	0.01 km east of Stagecoach Rd	
20	Glen St Culvert [L887320]	0.10 km east of Black Willow Lane	
20	Dawn Tara Dr Culvert [L888920]	0.12 km east of Sale Barn Rd	
5	MaClarens Side Rd Culvert [L336810]	0.21 km east of Stonecrest Rd	
5	MaClarens Side Rd Culvert [L336830]	0.72 km east of Stonecrest Rd	
5	Torbolton Ridge Rd Culvert [L337160]	1.48 km south of Kilmaurs Side Rd	
5	Casey Creek Lane Culvert [L337680]	0.01 km south of Porcupine Trl	
5	Armitage Ave Culvert [L339650]	0.01 km west of Greenland Rd	
5	Rabbit Path Culvert [L433100]	0.37 km north of Loggers Way	
5	Rabbit Path Culvert [L433120]	0.60 km north of Loggers Way	
5	Jessie St Culvert [L433315]	0.01 km north of Thomas A. Dolan Pkwy	
5	Ward Crt Culvert [L433750]	0.01 km north of Clifford Campbell St	
5	Corkery Rd Culvert [L541570]	0.09 km south of Carterfarm Cres	
5	Marshwood Rd Culvert [L541860]	2.05 km north of Vaughan Side Rd	
5	Alissia Cres Culvert [L542788]	0.11 km south of Midvale Dr	
5	McGee Side Rd Culvert [L542910]	0.27 km west of Spruce Ridge Rd	
5	Vaughan Side Rd Culvert [L544350]	0.04 km east of William Hodgins Lane	
5	Country Meadow Dr Culvert [L544840]	0.01 km east of Bearhill Rd	
5	Monaghan Lane Culvert [L646310]	0.55 km east of Old Second Line Rd	
5	Murphy Side Rd Culvert [L646550]	0.16 km east of Marchurst Rd	
21, 34	Ashton Station Rd Culvert [L751150]	0.22 km south of Copeland Rd	
21	Longridge Crt Culvert [L752184]	0.14 km north of Richland Dr	
21	Hubertine Gate Culvert [L755245]	0.01 km west of Lucas Lane	
6	Poole Creek Cres Culvert [L758610]	0.01 km west of Fringewood Dr	



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Project(s) within a Program Information			\$000's
910842 2023 Culverts Scoping Pre/Post Eng.		Class of Estimate: C) Planning	700
Category: Renewal of City Assets	Ward: CW	Year of Completion: 2025	
Scoping and design briefs are necessary to adequately define conditions, coordinate requirements, and scope projects prior to initiating design stages. Detailed condition assessment, structure evaluation, drainage studies, species-at-risk screening, and lifecycle based renewal options analysis are key components of this work. The outcomes of this work are the inputs of the design and construction phases of the project delivery processes. Post construction funding is required to address assessments and planned/unexpected adjustments outside the original implementation funding envelopes. Design and construction authority requests will be programmed as part of future capital budgets, once these initiatives are complete and project scope is fully defined.			
910843 2023 Drainage Culverts - Site-Specific		Class of Estimate: C) Planning	1,500
Category: Renewal of City Assets	Ward: CW	Year of Completion: 2025	
This program provides the authority to undertake engineering, design and construction of renewal works, that are not budgeted through any other renewal program that arise over the course of the year. Many culvert assets have reached or will reach the end of their service life, thus an increased number of reactive replacements are anticipated.			
910844 2023 Drainage Culvert - Site Spec-Other		Class of Estimate: C) Planning	150
Category: Renewal of City Assets	Ward: CW	Year of Completion: 2025	
This program provides authority to undertake minor repairs and unplanned replacements of drainage culverts through other City departments.			



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Project(s) within a Program Information			\$000's
910845	2023 Drainage Culverts Assessment	Class of Estimate: C) Planning	300
Category: Renewal of City Assets	Ward: CW	Year of Completion: 2024	
This program provides the authority for the inspection of drainage culverts under roadways and any required follow-up assessments.			

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Program Information			Financial Details							
Municipal Drains			Class of Estimate:		D) Conceptual					
Dept:	Infrastructure & Water Services Department	Category: Regulatory	Ward: Multiple		Year of Completion: Various					
Reduces greenhouse gases?			No		2023 Request		5,050	Projected Yearend Unspent Bal.		1,411
Builds climate resiliency?			No		Revenues		4,850	Debt		
<p>The program is required to address modifications, improvements and construction of Municipal Drains in the City of Ottawa. Under Sections 4 and 78 of the Drainage Act, RSO 1990, the municipality, whose duty it is to maintain, and repair drainage works or any part thereof, may with or without a petition, undertake and complete such drainage works. These drainage systems provide legal outlet for a vast majority of the agricultural and rural lands and roads in the City however the impetus for the majority of projects in this program is from land and road development mainly in the rural and suburban areas and as such the timing of the works hinges on the particular development project, which can span several years. In most cases the entire cost of the drainage works, including engineering and construction costs, is paid by the developer and/or benefiting landowners and in all cases the costs are recovered by the City once the drainage works are completed. All drainage works undertaken by the municipality, pursuant to the above-noted sections of the Act must be approved by Council.</p>					Tax Supported/ Dedicated		0	Tax Supported/ Dedicated Debt		0
					Rate Supported		200	Rate Supported Debt		0
					Develop. Charges		0	Develop. Charges Debt		0
					Gas Tax		0	Gas Tax Debt		0
					Forecast		2023	2024	2025	2026
					Authority		5,050	500	500	500
					Spending Plan		958	2,485	1,550	500
					FTEs		0	0	0	0
					Operating Impact		0	0	0	0

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Project(s) within a Program Information			\$000's
907718 Kizell Municipal Drain		Class of Estimate: D) Conceptual	750
Category: Regulatory	Ward: 4	Year of Completion: 2024	
An Engineer has been appointed to update the existing Kizell Municipal Drain Engineer's Report under section 78 of the Drainage Act RSO 1990. This update is required to extend the existing Municipal Drain downstream of its current outlet to accommodate development within the watershed. This drainage system will provide legal outlet for the watershed. The entire cost of the drainage works, including engineering and construction costs, will be paid by the benefiting landowners and the costs will be recovered by the City once the drainage works are completed. All drainage works undertaken by the municipality, pursuant to the above-noted sections of the Act must be approved by Council.			
908817 McKinnons Creek Municipal Drain		Class of Estimate: D) Conceptual	1,500
Category: Regulatory	Ward: 19	Year of Completion: 2025	
An Engineer has been appointed to prepare a new Engineer's Report under section 4 of the Drainage Act RSO 1990. Developers of land within the watershed have petitioned for the creation of this new Municipal Drain in order to provide legal and sufficient outlet for their proposed residential subdivisions. The entire cost of the drainage works, including engineering and construction costs, will be paid by the developers and the costs will be recovered by the City once the drainage works are completed. All drainage works undertaken by the municipality, pursuant to the above-noted sections of the Act must be approved by Council.			
909001 Hobbs Municipal Drain		Class of Estimate: D) Conceptual	750
Category: Regulatory	Ward: 21	Year of Completion: 2024	
An Engineer has been appointed to update the existing Hobbs Municipal Drain Engineer's Report under section 78 of the Drainage Act RSO 1990. This update was requested to extend the existing Municipal Drain downstream of its current outlet. In November 2019 the Drainage Engineer filed a report to terminate any further work on the proposed drainage works in accordance with Section 40 due to infeasibility. This project has been reopened under Section 78 by order of the Ontario Drainage Referee (Ontario Superior Court) and is currently under review. Decisions regarding costs of the project will be determined though a decision of the Ontario Superior Court.			

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Project(s) within a Program Information			\$000's
909216 Cassidy 2018 Municipal Drain		Class of Estimate: D) Conceptual	600
Category: Regulatory	Ward: 20	Year of Completion: 2025	
An Engineer has been appointed to update the existing Cassidy Municipal Drain Engineer's Report under sections 4 and 78 of the Drainage Act RSO 1990. A new Engineer's Report is required to update the technical aspects of the drain to reflect the current land use. A new branch will also be added to accommodate the stormwater for a residential subdivision within the existing watershed. This drainage system will provide legal outlet for the watershed. The entire cost of the drainage works, including engineering and construction costs, will be paid by the benefiting landowners and the costs will be recovered by the City once the drainage works are completed. All drainage works undertaken by the municipality, pursuant to the above-noted sections of the Act must be approved by Council.			
909305 Buckles Municipal Drain		Class of Estimate: D) Conceptual	300
Category: Regulatory	Ward: 20	Year of Completion: 2025	
An Engineer has been appointed to update the existing Buckles Municipal Drain Engineer's Report under section 78 of the Drainage Act RSO 1990. A new Engineer's Report is required to update the technical aspects of the drain to reflect the current land use. This drainage system will provide legal outlet for the watershed. The entire cost of the drainage works, including engineering and construction costs, will be paid by the benefiting landowners and the costs will be recovered by the City once the drainage works are completed. All drainage works undertaken by the municipality, pursuant to the above-noted sections of the Act must be approved by Council.			
909898 Biltmore Extension Municipal Drain		Class of Estimate: D) Conceptual	400
Category: Regulatory	Ward: 21	Year of Completion: 2024	
An Engineer has been appointed to prepare a new Engineer's Report under section 4 of the Drainage Act RSO 1990. City of Ottawa Surface Operations have petitioned for the creation of this new Municipal Drain in order to provide improved drainage for Fallowfield Road, Munster Road and Biltmore Crescent. The entire cost of the drainage works, including engineering and construction costs, will be paid by the benefiting landowners and the costs will be recovered by the City once the drainage works are completed. All drainage works undertaken by the municipality, pursuant to the above-noted sections of the Act must be approved by Council.			

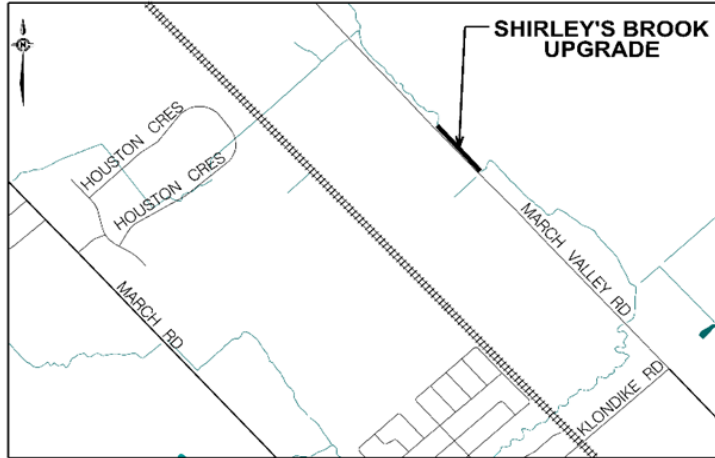
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Project(s) within a Program Information			\$000's
909960 Johnston Municipal Drain		Class of Estimate: D) Conceptual	80
Category: Regulatory	Ward: 21	Year of Completion: 2024	
An Engineer has been appointed to update the existing Johnston Municipal Drain Engineer's Report under section 78 of the Drainage Act RSO 1990. A new Engineer's Report is required to relocate the drain on the subject property, account for the changes in land use and possibly adjust the watershed boundary between the Johnston Municipal Drain and the Dillon-Wallace Municipal Drain. This drainage system will provide legal outlet for the watershed. The entire cost of the drainage works, including engineering and construction costs, will be paid by the developer of the subject property and the costs will be recovered by the City once the drainage works are completed. All drainage works undertaken by the municipality, pursuant to the above-noted sections of the Act must be approved by Council.			
909961 Dillon-Wallace Municipal Drain		Class of Estimate: D) Conceptual	60
Category: Regulatory	Ward: 21	Year of Completion: 2024	
An Engineer has been appointed to update the existing Dillon-Wallace Municipal Drain Engineer's Report under section 78 of the Drainage Act RSO 1990. A new Engineer's Report is required to possibly adjust the watershed boundary between the Dillon-Wallace Municipal Drain and the Johnston Municipal Drain as a result of development on the subject property. This drainage system will provide legal outlet for the watershed. The entire cost of the drainage works, including engineering and construction costs, will be paid by the developer of the subject property and the costs will be recovered by the City once the drainage works are completed. All drainage works undertaken by the municipality, pursuant to the above-noted sections of the Act must be approved by Council.			
910905 Municipal Drain Improvements - 2023		Class of Estimate: D) Conceptual	610
Category: Regulatory	Ward: 21	Year of Completion: 2025	
The Drainage Act provides landowners with a tool to help resolve drainage concerns. Once a request is received from a landowner the Drainage Act process is initiated. The project costs are initially paid by the City and are subsequently recovered through provincial funding and landowner assessment as determined by the Engineer's Report and By-law. Funds are required in order to ensure the City is able to respond to drainage petitions in a timely fashion. All drainage works undertaken by the municipality, pursuant to the above-noted sections of the Act must be approved by Council.			

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Project Information			Financial Details						
909730	2020 Stormwater Master Planning		Class of Estimate:		Not Applicable				
Dept:	Infrastructure & Water Services Department	Category: Growth	Ward: CW		Year of Completion: 2024				
Reduces greenhouse gases?			No	2023 Request		688	Projected Yearend Unspent Bal.	498	
Builds climate resiliency?			Yes - Minor Contribution		Revenues		0	Debt	
<p>The requested funds are to support citywide stormwater master planning work needed to support growth and maintenance of existing service levels.</p> <p>Stormwater Master Planning considers future climate conditions, including increased volume and intensity of precipitation.</p>				Tax Supported/ Dedicated		0	Tax Supported/ Dedicated Debt		0
				Rate Supported		344	Rate Supported Debt		0
				Develop. Charges		344	Develop. Charges Debt		0
				Gas Tax		0	Gas Tax Debt		0
				Forecast		2023	2024	2025	2026
				Authority		688	286	292	298
				Spending Plan		550	366	291	297
				FTEs		0	0	0	0
				Operating Impact		0	0	0	0

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Project Information			Financial Details								
910398 Shirley's Brook Upgrade (KNUEA)			Class of Estimate: D) Conceptual								
Dept:	Infrastructure & Water Services Department	Category: Service Enhancements	Ward: 5	Year of Completion: 2025							
Reduces greenhouse gases?			No	2023 Request		1,058	Projected Yearend Unspent Bal.		363		
Builds climate resiliency?			Yes - Minor Contribution		Revenues		Debt				
<p>A section of Shirley's Brook in North Kanata, where it runs close to March Valley Road, was identified as an area requiring erosion protection in the Kanata North Urban Expansion Area Environmental Management Plan. This protection is needed to address existing and future development impacts on the brook. This budget request is to cover the cost of related design and construction works, and accounts for a financial contribution which was negotiated with the benefitting developer.</p> <p>This project will build resiliency to erosion caused by increasing precipitation.</p>			Tax Supported/ Dedicated		0		Tax Supported/ Dedicated Debt		0		
			Rate Supported Develop.		1,058		Rate Supported Debt		0		
			Charges		0		Develop. Charges Debt		0		
			Gas Tax		0		Gas Tax Debt		0		
			Forecast		2023		2024		2025		2026
			Authority		1,058		0		0		0
			Spending Plan		212		635		212	0	
			FTEs		0		0		0	0	
			Operating Impact		0		38		0	0	
											

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Project Description	2023	2024	2025	2026	Total
Drinking Water Services					
Renewal of City Assets					
906664 Hurdman Bridge PS Renewal	4,650	0	0	0	4,650
908076 Large Water Meters Changeout Program	300	750	750	500	2,300
908908 Small Water Meters Changeout Program	1,650	1,650	1,650	1,900	6,850
908909 Advanced Metering Infra. (AMI) Changeout	3,000	3,025	3,050	3,075	12,150
908995 Advanced Metering Infra. (AMI) Software	650	0	0	500	1,150
908996 Meter Service Mobility	150	50	0	150	350
909208 Lemieux & Britannia G2 Generator Constr	7,875	0	0	0	7,875
909560 Britannia LLP & HLP Motors and Drives	4,775	0	0	0	4,775
909573 DWS SCADA Network Upgrade	282	0	0	0	282
909574 DWS SCADA HMI Upgrade	1,129	0	0	0	1,129
909648 Lemieux Protective Relays Upgrades	1,000	0	0	0	1,000
909649 WTP Surge Protection Improvements	200	0	0	0	200
909671 2020 Infrastructure Master Plan (Water)	0	0	0	337	337
909735 Carling Ave (Moodie-Shirleys Bay)	0	0	18,400	0	18,400
909930 Water & Sewer Utility Billing System	800	0	0	500	1,300
910006 Shadow Ridge Wells Rehab	4,125	0	0	0	4,125
910260 Wash Water Tank and Pump Room Rehab	555	0	0	0	555
910385 Well System Inspection and Rehab	300	0	0	0	300
910668 Lem & Brit Operator Room Ergonomics	589	0	0	0	589
910810 2023 Buildings-Water Services	100	150	150	150	550
910846 Protective Lead Service Replace 2023	0	1,250	1,250	1,250	3,750
910847 Cathodic Protection 2023	0	1,200	1,200	1,200	3,600
910855 2023 Ops Cond Assess-Critical Sys Links	1,875	1,333	1,423	1,521	6,152
910856 Water Pumping Station Rehab 2023	0	575	0	1,850	2,425
910857 Communal Well System Rehab 2023	0	10,458	0	0	10,458
910858 Water Treatment Rehab 2023	5,856	37,175	9,588	9,904	62,523
910868 Water Distribution Sys Improvements 2023	0	250	250	250	750
910870 Water Facilities Roofing 2023	0	200	200	200	600
910871 Drinking Water Services Fleet 2023	0	250	250	250	750
910872 Water Storage Tanks & Reservoirs 2023	649	7,160	6,010	0	13,819
910884 DWS Capitalized Maintenance 2023	400	1,400	1,400	1,400	4,600
910893 York St - Byward Market Sq	470	1,090	0	0	1,560
910894 Prince of Wales (Green Valley - DE)	530	1,230	0	0	1,760
910895 2023 Water System Improvements	7,500	7,500	8,000	8,500	31,500



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910896 2023 WM Transmission/Distribution Rehab	5,500	5,500	5,500	5,750	22,250
910899 2022 Water Structures - Inspections	0	40	40	45	125
<b>Renewal of City Assets Total</b>	<b>54,910</b>	<b>82,236</b>	<b>59,111</b>	<b>39,232</b>	<b>235,489</b>
Growth					
900631 Carlington Heights Pumping Stn Expansion	3,174	0	0	0	3,174
901144 Glen Cairn Reservoir Expansion	354	5,396	16,500	0	22,250
902206 Ottawa South Pumping Station Upgrade	2,857	0	1,187	0	4,044
904916 Kanata West Feedermain	0	5,366	0	0	5,366
904918 Limebank Feedermain	0	5,396	0	0	5,396
904972 Glen Cairn PS Upgrade	1,322	4,047	0	0	5,369
904982 Zone 2W West march Rd 406 to 6	0	4,721	0	0	4,721
907100 Carp Well Capacity Increase	0	1,079	0	0	1,079
907101 River Ridge 3C Elevated Tank	0	5,396	16,500	0	21,896
907453 Britannia WPP Valving Upgrade	0	701	0	0	701
910050 Manotick Supply Watermain - Phase 2	5,290	0	0	0	5,290
910900 2023 Off Site Reliability Links	170	173	177	181	701
910901 2023 Groundwater Studies	0	281	285	292	858
910902 2023 Rural Servicing Strategy	0	108	111	280	499
910903 2023 Water & Wastewater Studies	529	540	291	298	1,658
<b>Growth Total</b>	<b>13,696</b>	<b>33,204</b>	<b>35,051</b>	<b>1,051</b>	<b>83,002</b>
Regulatory					
910860 Water Efficiency 2023	150	150	150	150	600
<b>Regulatory Total</b>	<b>150</b>	<b>150</b>	<b>150</b>	<b>150</b>	<b>600</b>
<b>Drinking Water Services Total</b>	<b>68,756</b>	<b>115,590</b>	<b>94,312</b>	<b>40,433</b>	<b>319,091</b>
Integrated Water & Wastewater					
Renewal of City Assets					
910436 Riverside Dr Sewer Industrial-Transitway	2,180	0	0	0	2,180
910887 2023 Easement Agreements Updates	5,000	5,000	5,000	5,000	20,000
910888 2023 Hydraulic Structures	500	750	1,000	1,100	3,350
910889 2023 Sewer Repairs / Improvements	7,000	8,000	9,000	10,000	34,000
910890 2023 Sewer Trenchless Rehab	3,000	3,250	3,500	3,750	13,500
910891 2023 Sewer&Watermain Inspec&Data Mngmt	1,400	1,400	1,400	1,400	5,600

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<b>Renewal of City Assets Total</b>	<b>19,080</b>	<b>18,400</b>	<b>19,900</b>	<b>21,250</b>	<b>78,630</b>
<b>Integrated Water &amp; Wastewater Total</b>	<b>19,080</b>	<b>18,400</b>	<b>19,900</b>	<b>21,250</b>	<b>78,630</b>
Wastewater Services					
Renewal of City Assets					
908250 Infrastructure Planning Information Mgmt	582	270	219	225	1,296
908892 ROPEC Activated Sludge Screws Overhaul	1,630	0	0	0	1,630
909158 ROPEC RSPS Motor & Drive Rehab.	24,900	0	0	0	24,900
909226 Flow Through Station Rehabs	700	0	0	0	700
909745 Acres Road PS Phase 1 Renewal	874	0	0	0	874
909746 Acres Road PS Phase 2 Renewal	0	2,525	0	0	2,525
909906 Primary Clarifiers Inlet Gate Replacemen	280	0	0	0	280
909972 RCAF and RCMP PS Rehabilitation	4,000	0	0	0	4,000
910048 2021 Infrastructure Master Plan (Sewer)	0	0	0	309	309
910774 St Joseph PS Reliability Upgrade	400	0	0	0	400
910892 2023 ORAP Wet Weather IMP	1,000	3,000	3,100	3,200	10,300
910904 2023 Pump Stations Capacity Renewal	2,609	2,644	0	0	5,253
910909 New Vehicles Wastewater 2023	250	100	100	100	550
910910 Collection System Condition Assess. 2023	1,000	2,150	2,260	2,380	7,790
910912 Protective Plumbing Program 2023	0	1,000	1,000	1,000	3,000
910913 Sewer Lateral Repairs 2023	0	4,500	4,500	4,500	13,500
910914 Sewage Pumping Station Rehab Prog 2023	11,458	15,250	250	250	27,208
910915 ROPEC - Sewage Treatment Rehab Prog 2023	28,712	27,120	47,048	2,250	105,130
910917 Wastewater Drainage Roofing 2023	347	0	95	0	442
910918 ROPEC - SCADA Rehab. & Upgrades 2023	1,000	1,000	1,000	1,000	4,000
910919 Lab Equipment Replacement 2023	170	350	350	350	1,220
910920 Linear Sewage System Improvements 2023	1,000	1,000	1,000	1,000	4,000
910921 Flow Monitoring System Rehab 2023	200	200	200	200	800
910923 ROPEC Capitalized Maintenance 2023	1,000	1,000	1,000	1,000	4,000
910924 Waste Water Collection Maintenance 2023	7,000	4,500	4,500	4,500	20,500
911029 ROPEC HVAC Rehab	1,600	1,600	1,600	0	4,800
<b>Renewal of City Assets Total</b>	<b>90,712</b>	<b>68,209</b>	<b>68,222</b>	<b>22,264</b>	<b>249,407</b>
Growth					
907463 Stittsville PS Gravity Connect	1,623	0	0	0	1,623

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Project Description	2023	2024	2025	2026	Total
908247 Richmond Forcemain Expansion	0	0	3,812	0	3,812
908626 Signature Ridge PS Expansion -	0	5,366	0	0	5,366
909728 Acres Road PS Upgrade Phase 2 Growth	0	2,331	0	0	2,331
909992 Richmond Pump Station	3,332	0	0	0	3,332
910076 Carp Wastewater PS Upgrade/Overflow	1,058	0	0	0	1,058
910906 2023 Pump Stations Capacity Increase	5,120	4,909	0	0	10,029
<b>Growth Total</b>	<b>11,133</b>	<b>12,606</b>	<b>3,812</b>	<b>0</b>	<b>27,551</b>
Regulatory					
908874 ROPEC Fire Damper Rehab	610	1,800	0	0	2,410
<b>Regulatory Total</b>	<b>610</b>	<b>1,800</b>	<b>0</b>	<b>0</b>	<b>2,410</b>
<b>Wastewater Services Total</b>	<b>102,455</b>	<b>82,615</b>	<b>72,034</b>	<b>22,264</b>	<b>279,368</b>
Stormwater Services					
Renewal of City Assets					
908252 Stormwater Mgmt Retrofit Master Plan	0	324	330	337	991
908618 CWWF Convent Glen North Storm Sewer	2,500	41,930	0	0	44,430
909356 2020 Stormwater Management Retrofit	1,058	2,698	2,750	4,488	10,994
909748 Mud Creek Stream Renewal	3,521	0	0	0	3,521
910448 2022 Drainage Culverts - CW	8,864	0	0	0	8,864
910817 2023 Flood Plain Mapping	582	345	363	460	1,750
910822 2023 Drainage Culverts - CW	3,717	11,646	8,473	14,000	37,836
910826 2023 Drainage Culverts - Other	527	771	480	201	1,978
910842 2023 Culverts Scoping Pre/Post Eng.	700	800	850	900	3,250
910843 2023 Drainage Culverts - Site-Specific	1,500	1,400	1,500	1,600	6,000
910844 2023 Drainage Culvert - Site Spec-Other	150	138	143	148	579
910845 2023 Drainage Culverts Assessment	300	400	300	300	1,300
910867 Stormwater Mgmt: Rehab&Enviro Compl 2023	4,700	1,700	2,400	1,890	10,690
910873 Linear Storm System Improvements 2023	3,500	1,000	1,000	1,000	6,500
910897 2023 Storm & Surface Water Rehab	1,500	1,500	1,500	1,500	6,000
910898 2023 Ditch Alterations	50	50	50	50	200
<b>Renewal of City Assets Total</b>	<b>33,168</b>	<b>64,702</b>	<b>20,139</b>	<b>26,874</b>	<b>144,882</b>
Growth					
909730 2020 Stormwater Master Planning	688	286	292	298	1,564

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<b>Growth Total</b>	<b>688</b>	<b>286</b>	<b>292</b>	<b>298</b>	<b>1,564</b>
Regulatory					
907718 Kizell Municipal Drain	750	0	0	0	750
908817 McKinnons Creek Municipal Drain	1,500	0	0	0	1,500
909001 Hobbs Municipal Drain	750	0	0	0	750
909216 Cassidy 2018 Municipal Drain	600	0	0	0	600
909305 Buckles Municipal Drain	300	0	0	0	300
909898 Biltmore Extension Municipal Drain	400	0	0	0	400
909960 Johnston Municipal Drain	80	0	0	0	80
909961 Dillon-Wallace Municipal Drain	60	0	0	0	60
910905 Municipal Drain Improvements - 2023	610	500	500	500	2,110
<b>Regulatory Total</b>	<b>5,050</b>	<b>500</b>	<b>500</b>	<b>500</b>	<b>6,550</b>
Service Enhancements					
910398 Shirley's Brook Upgrade (KNUEA)	1,058	0	0	0	1,058
<b>Service Enhancements Total</b>	<b>1,058</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,058</b>
<b>Stormwater Services Total</b>	<b>39,964</b>	<b>65,488</b>	<b>20,931</b>	<b>27,672</b>	<b>154,054</b>
Environment*					
Renewal of City Assets					
910731 Excess Soils Program	120	0	0	0	120
<b>Renewal of City Assets Total</b>	<b>120</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>120</b>
<b>Environment* Total</b>	<b>120</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>120</b>
Information Technology*					
Renewal of City Assets					
910789 ITS Managed - 2023	1,000	1,000	1,000	1,000	4,000
<b>Renewal of City Assets Total</b>	<b>1,000</b>	<b>1,000</b>	<b>1,000</b>	<b>1,000</b>	<b>4,000</b>
<b>Information Technology* Total</b>	<b>1,000</b>	<b>1,000</b>	<b>1,000</b>	<b>1,000</b>	<b>4,000</b>
Integrated Roads, Water & Wastewater*					
Renewal of City Assets					

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**Four Year Forecast Summary**

Project Description	2023	2024	2025	2026	Total
906735 Bank St (Riverside-Ledbury)	16,280	16,610	10,730	18,230	61,850
906900 Main Greenfield Echo Concord et al	5,810	0	0	0	5,810
908137 CWWF Deerpark-Hilliard-Fisher et al.	0	3,580	0	0	3,580
908139 Montreal Rd (N River Rd-St Laurent Blvd)	230	0	0	0	230
908140 City Centre Ave & Elm St	5,170	0	0	0	5,170
908141 ORAP Albert St-Bronson Ave-Slater St	1,220	0	0	0	1,220
908571 Catherine St (Bronson-Elgin)	0	0	0	1,000	1,000
908574 Grove Ave & Grosvenor	7,430	0	0	0	7,430
908575 Isabella-Chamberlain	0	0	0	1,000	1,000
908581 Valley Dr Storm Sewer	5,850	0	0	0	5,850
908646 Integrated Construction - Bulk Prjs	0	0	0	68,191	68,191
909012 Bronson Ave (Arlington-Rideau Canal)	0	0	0	17,720	17,720
909021 Woodroffe Ave (Anthony - Byron)	0	750	0	1,850	2,600
909394 Arch - Canterbury - Plesser	12,970	0	0	0	12,970
909402 Caroline Ave - Huron Ave N	9,750	0	0	0	9,750
909406 Integrated Design - Bulk Prjs	0	12,034	16,045	24,068	52,146
909407 Longpre - Marquette- Michel Cir	0	7,590	0	0	7,590
909408 Monk - Oakland -Wilton	10,130	0	0	0	10,130
909409 Winona Ave & Wilmont Ave	0	6,690	0	0	6,690
909485 Carling Ave - Churchill Ave - Kirkwood	0	18,850	0	0	18,850
909731 Piccadilly Ave (Wellington - Bassett)	2,600	0	0	0	2,600
909732 Maclaren St - Lyon St	9,080	0	0	0	9,080
909733 Pretoria Ave (Metcalf-Bank)	2,700	0	0	0	2,700
909849 Albert St. - Slater St. (Bay to Elgin)	0	15,610	0	0	15,610
910092 Breezehill Ave N (Gladstone - Somerset)	0	2,780	0	0	2,780
910105 Drouin Ave (North River - West Presland)	0	1,230	0	0	1,230
910106 James St Kent St (Bronson - Bank)	0	6,160	0	0	6,160
910107 Arnhem St and Apeldoorn Ave	0	7,180	0	0	7,180
910108 Clare Dovercourt (Chruchill - Hilson & T	0	6,060	0	0	6,060
910109 Ferndale Ave (Churchill Ave N - Selby Av	0	1,870	0	0	1,870
910111 Glebe (Bank - O'Connor)	0	1,640	0	0	1,640
910112 Oakhill and Corona (Acaia - Beechwood)	0	2,320	0	0	2,320
910113 Summit Ave (Alta Vista - Fairbanks)	0	2,550	0	0	2,550
910421 2022 Infrastructure Assess & Data Collec	0	330	360	390	1,080
910433 St Joseph PS Decomission-Bruyere&Cathcar	0	1,650	0	0	1,650
910434 Highland Ave (Princeton to Dovercourt)	0	1,770	0	0	1,770

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Project Description	2023	2024	2025	2026	Total
910473 Viscount Ave	0	0	3,510	0	3,510
910474 Ella St - Ralph St	0	2,820	0	0	2,820
910475 Hilda St - Manchester Ave	0	0	1,280	0	1,280
910827 2023 Integrated Scoping Pre/Post Eng	1,453	1,658	2,465	3,273	8,849
910828 2023 Road Resurfacing - CW	2,604	2,634	2,670	2,730	10,638
910829 2023 Comprehensive Asset Management	687	285	300	315	1,587
910830 Taunton PI (LI) (Davidson - DeadEnd)	240	0	500	0	740
910831 Merivale Rd (Anna Ave - Carling Ave)	1,440	0	0	0	1,440
910832 Clarey - Regent - Morris - Monk et al.	1,800	0	8,940	0	10,740
910833 Rue de L'Eglise (Montreal - McArthur)	1,550	0	6,950	0	8,500
910834 Jeffery - Arundel - Farnham et al.	1,550	0	9,480	0	11,030
910835 Harrold - Anna - Veteran	1,550	0	0	7,030	8,580
910836 Java - Iona - Calrendon - Kenora	1,800	0	13,770	0	15,570
910837 Athlone - Lincoln - Edgewood - Eden	1,550	0	6,760	0	8,310
910838 Bay (Florence - Somerset)	650	0	2,920	0	3,570
910839 Cameron Ave - Seneca St	1,710	0	6,340	0	8,050
910840 Melbourne - Ravenhill	1,550	0	7,110	0	8,660
910841 Montfort - Alfred - Granville	1,470	0	6,220	0	7,690
<b>Renewal of City Assets Total</b>	<b>110,824</b>	<b>124,651</b>	<b>106,350</b>	<b>145,796</b>	<b>487,621</b>
<b>Integrated Roads, Water &amp; Wastewater* Total</b>	<b>110,824</b>	<b>124,651</b>	<b>106,350</b>	<b>145,796</b>	<b>487,621</b>
<b>Transportation Services*</b>					
Renewal of City Assets					
911023 2023 Aerial Mapping Services	672	234	432	204	1,542
<b>Renewal of City Assets Total</b>	<b>672</b>	<b>234</b>	<b>432</b>	<b>204</b>	<b>1,542</b>
<b>Transportation Services* Total</b>	<b>672</b>	<b>234</b>	<b>432</b>	<b>204</b>	<b>1,542</b>
<b>Grand Total</b>	<b>342,871</b>	<b>407,977</b>	<b>314,959</b>	<b>258,619</b>	<b>1,324,426</b>

\*Includes the Rate portion only for information purposes.

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Project Description	Authority	Expenditures	Unspent Cash Balance	Total Contractual Obligations	Unspent Balance including Contractual Obligations
Drinking Water Services					
900631 Carlington Heights Pumping Stn Expansion	16,162	2,316	13,846	1,098	12,747
900632 Strandherd Road Watermain	7,865	5,173	2,692	389	2,303
902206 Ottawa South Pumping Station Upgrade	16,370	2,589	13,781	1,359	12,422
903295 Brittany Pumping Station	9,089	5,056	4,033	2,497	1,536
903298 DCA -Shadow Ridge Exploratory/Well	99	96	3	0	3
904916 Kanata West Feedermain	3,092	194	2,898	0	2,898
904918 Limebank Feedermain	3,374	0	3,374	0	3,374
904975 Barrhaven PS Conversion to 3C	4,873	4,429	444	20	424
904981 3C/2W Pressure Zone Separation	5,822	4,367	1,455	231	1,225
904982 Zone 2W West march Rd 406 to 6	600	0	600	0	600
905429 DCA-Mer Bleue Rd Reliability Links	1,232	677	555	0	555
905681 Water System SCADA & Instrument Rehab	2,410	2,374	36	19	17
905992 Manotick Supply Watermain	13,042	11,258	1,784	1,168	616
906358 Transmission Mains Condition Assessment	1,600	1,583	17	17	0
906539 Large Transmission Mains Risk Mitigation	497	430	68	69	(2)
906662 CWWF Village/Carp Water Quality TreatFac	8,480	6,937	1,543	316	1,227
906664 Hurdman Bridge PS Renewal	18,131	1,950	16,181	2,053	14,128
906665 Lemieux WPP Intake Ice Mgmt	31,621	1,189	30,432	250	30,182
906795 Condition Assess - Critical System Links	5,000	4,620	380	332	48
907100 Carp Well Capacity Increase	1,037	0	1,037	0	1,037
907101 River Ridge 3C Elevated Tank	514	4	510	0	510
907455 Hurdman Bridge/Billings BridgePS Upgrade	1,700	0	1,700	0	1,700
907456 Manotick North Island Link	9,356	7,541	1,815	1,277	539
907467 SUC Greenbank	4,930	132	4,798	75	4,722
907476 WPP Chemical Systems Modifications	2,405	2,289	116	134	(18)
907568 EAM Maximo Data Optimization	1,004	462	542	4	538
907640 Water Storage Tanks & Reservoir	575	493	82	11	72
907648 Proactive Lead Service Replacement Prog	896	897	(1)	0	(1)
907654 Ops Condition Assess-Critical Sys Links	2,275	1,623	652	519	133
907655 Communal Well System Rehab 2018	487	465	22	22	(1)
907795 Business Technology Opportunities	3,600	2,239	1,361	199	1,162
908076 Large Water Meters Changeout Program	4,050	1,810	2,240	0	2,240
908077 Ops Condition Assess-Critical Sys Links	234	223	10	10	0
908078 Proactive Lead Service Replace Prog 2017	921	947	(26)	0	(26)
908080 Water Distribution Sys Improvements 2019	1,000	790	210	1	209

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Project Description	Authority	Expenditures	Unspent Cash Balance	Total Contractual Obligations	Unspent Balance including Contractual Obligations
908082 Communal Well System Rehab 2018	105	108	(3)	0	(3)
908257 DCA O/S Kanata West Transmission Mains	907	0	907	0	907
908326 Britannia Chem System Mods - DWS	25	1	24	0	24
908376 Montreal Road PS Lifecycle Replacements	4,200	3,850	350	122	227
908379 Britannia WPP Expansion Joint Rehab	200	0	200	0	200
908479 Carp Diesel Pump Upgrades	1,255	1,158	97	33	64
908511 2017 Watermain Improvements	1,836	1,710	126	108	18
908613 Bank St (Rideau Rd-Mitch Owens)	8,970	7,604	1,366	934	432
908615 Leitrim Rd (Bank-550m East)	1,700	0	1,700	0	1,700
908623 2017 Water & Wastewater EA Studies	250	246	4	0	4
908633 Enhanced Corrosion Control	6,118	127	5,991	25	5,967
908745 CWWF [Design] Lemieux Island WPP Intake	2,400	2,165	235	220	15
908749 FEA2016-Kanata West Feedermain	5,788	5,529	259	0	259
908866 DWS Concrete Repairs	150	135	15	7	9
908908 Small Water Meters Changeout Program	18,225	4,520	13,705	0	13,705
908909 Advanced Metering Infra. (AMI) Changeout	2,075	0	2,075	0	2,075
908931 2018 Buildings-Water Services	1,000	807	193	177	16
908978 2018 Transmission/Distribution WM Rehab	1,090	376	714	204	510
908980 2019 Watermain Improvements	3,845	3,595	250	16	235
908981 Lemieux island Pipe Bridge SN 017160	3,640	862	2,778	0	2,778
908996 Meter Service Mobility	700	568	132	31	101
909003 DWS Ladder Trolley & Rail System Upgrade	600	312	288	1	286
909039 Proactive Lead Service Replace Prog 2018	400	309	91	0	91
909132 2018 Rural Servicing Strategy	205	158	47	18	29
909133 2018 Water & Wastewater EA Studies	255	213	42	27	15
909134 2018 Infrastructure Master Plan (Water)	501	98	403	233	170
909189 Britannia Highlift Flowmeters	1,786	892	894	899	(5)
909191 DWS SCADA secondary network replacement	725	630	95	38	57
909208 Lemieux & Britannia G2 Generator Constr	12,125	795	11,330	274	11,056
909265 Britannia Window/Roof Repairs	1,588	640	948	1,200	(252)
909352 2019 Groundwater Studies	1,319	789	530	346	184
909353 2019 Rural Servicing Strategy	250	3	247	3	245
909354 2019 Water & Wastewater EA Studies	260	80	180	0	180
909371 2019 Buildings-Water Services	575	401	174	6	168
909392 2019 WM Transmission/Distribution Rehab	3,944	3,585	359	16	343
909410 Water Storage Tanks & Reservoir 2019	1,010	26	984	0	984



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Project Description	Authority	Expenditures	Unspent Cash Balance	Total Contractual Obligations	Unspent Balance including Contractual Obligations
909412 Water Treatment Rehab 2019	922	949	(27)	0	(27)
909416 Water Pumping Station Facility Rehab2019	1,550	29	1,521	12	1,509
909560 Britannia LLP & HLP Motors and Drives	2,500	175	2,325	0	2,325
909573 DWS SCADA Network Upgrade	2,070	0	2,070	0	2,070
909574 DWS SCADA HMI Upgrade	4,000	1	3,999	1,035	2,964
909576 Lemieux Settled Water Ducts & Outfall Re	1,742	291	1,451	105	1,346
909595 WPP Arc Flash Hazard Studies	300	200	100	0	100
909598 Kings Park Well 1 Electrical Service Upg	306	78	228	35	193
909648 Lemieux Protective Relays Upgrades	250	0	250	0	250
909649 WTP Surge Protection Improvements	807	101	706	0	706
909671 2020 Infrastructure Master Plan (Water)	665	150	515	132	383
909672 2020 Off Site Reliability Links	160	0	160	0	160
909673 2020 Groundwater Studies	380	122	258	147	110
909674 2020 Rural Servicing Strategy	260	0	260	0	260
909682 2020 Buildings - Water Services	150	95	55	4	51
909713 Water System Improvements	6,000	3,528	2,472	29	2,443
909714 2020 WM Transmission/Distribution Rehab	4,087	2,592	1,495	1,109	386
909725 2020 Water & Wastewater Studies	260	0	260	0	260
909735 Carling Ave (Moodie-Shirleys Bay)	3,000	0	3,000	0	3,000
909795 Water Distribution Sys Improvements 2020	1,325	4	1,321	0	1,321
909796 Water Facilities Roofing 2020	200	0	200	0	200
909797 Water Storage Tanks & Reservoir 2020	630	0	630	0	630
909798 Water Pumping Station Facility Rehab2020	1,450	27	1,423	0	1,423
909799 Communal Well System Rehab 2020	39	0	39	0	39
909800 Water Treatment Rehab 2020	1,310	1,292	18	21	(3)
909801 Water Sys SCADA & Instrument Rehab 2020	100	78	22	0	22
909802 Protective Lead Serv Replace Prog 2020	1,250	787	463	0	463
909804 Critical Links Risk Mitigation Meas 2020	500	273	227	209	17
909901 WPP Electrical Preparedness Improvements	180	46	134	0	134
909905 Britannia Flood Initiatives & SW Mngmt	100	4	96	0	96
909930 H2Ottawa Post Implementation Deployment	600	279	321	7	315
909966 Lemieux High Lift Suction Header	200	84	116	84	32
909968 Water Purification Plants Comprehensive	315	286	29	29	(0)
909974 Lemieux High Lift PS Structural Upgrades	125	0	125	0	125
909993 2020 Drinking Water Asset Management Pla	250	135	115	6	109
910006 Shadow Ridge Wells Rehab	3,778	982	2,796	2,768	27

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Project Description	Authority	Expenditures	Unspent Cash Balance	Total Contractual Obligations	Unspent Balance including Contractual Obligations
910050 Manotick Supply Watermain - Phase 2	20,308	525	19,783	237	19,546
910051 2021 Off Site Reliability Links	164	0	164	0	164
910052 2021 Groundwater Studies	389	0	389	0	389
910053 2021 Rural Servicing Strategy	216	0	216	0	216
910054 2021 Water & Wastewater Studies	270	0	270	0	270
910066 2021 Buildings-Water Services	50	51	(1)	0	(1)
910117 2021 Water System Improvements	7,500	650	6,850	3,105	3,745
910118 2021 WM Transmission/Distribution Rehab	5,500	1,814	3,686	22	3,664
910119 Stanley Ave. (Sussex - Union St)	2,150	135	2,015	31	1,985
910133 Water Storage Tanks & Reservoir 2021	530	0	530	0	530
910135 Water Pumping Station Facility Rehab2021	4,017	0	4,017	53	3,964
910136 Water Treatment Rehab 2021	766	621	145	239	(93)
910137 Protective Lead Service Rplment Prog2021	1,250	0	1,250	0	1,250
910138 Water Sys SCADA & Instrument Rehab 2021	103	0	103	0	103
910139 Cathodic Protection 2021	1,200	292	908	414	494
910140 Ops Condition Assess-Critical Sys Links	900	255	645	506	139
910141 New Vehicles Drinking Water 2021	75	0	75	0	75
910233 Britannia Elevators Rehab	900	109	791	529	262
910251 Britannia high Voltage project	500	0	500	359	141
910255 Lemieux PA System Upgrades	552	378	174	35	140
910256 2021 Spring Freshet Contingency Planning	630	320	310	240	71
910260 Wash Water Tank and Pump Room Rehab	275	37	238	153	84
910272 Whitewood Ave Water Servicing	1,390	562	828	134	694
910276 Headworks Hardware Upgrade	75	55	20	1	19
910277 Britannia Diesel Gen & Fuel System Rehab	429	183	246	233	13
910278 Lemieux Diesel Gen & Fuel System Rehab	200	10	190	106	84
910305 DWS Online Turbidimeter Replacement	500	344	156	35	122
910310 Backflow Prevention Upgrades Water Facil	500	41	459	58	401
910327 Reliability Engineering Water Remotes	473	108	365	159	205
910328 Reliability Engineering Water Treatment	845	133	712	167	545
910345 Remotes 5 Year Electrical Maintenance	800	115	685	351	334
910346 Lemieux WPP Relays & WPPs Elec. Coord	400	0	400	0	400
910354 Water Structures - Inspections	40	1	39	0	39
910357 Lemieux 5 yr MVLV PM	750	61	689	618	71
910358 Water Efficiency	50	35	15	0	15
910370 Britannia Sodium Hypo Pumps Upgrade	250	73	177	9	168

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Project Description	Authority	Expenditures	Unspent Cash Balance	Total Contractual Obligations	Unspent Balance including Contractual Obligations
910381 DMZ Environment Upgrades	150	37	113	45	68
910385 Well System Inspection and Rehab	425	276	149	61	88
910388 SolarWinds Network Upgrades	150	15	135	11	124
910395 2022 Off Site Reliability Links	167	0	167	0	167
910396 2022 Groundwater Studies	164	0	164	0	164
910397 2022 Rural Servicing Strategy	220	0	220	0	220
910399 2022 Water & Wastewater Studies	519	0	519	0	519
910411 2022 Buildings-Water Services	150	0	150	0	150
910456 2022 Water System Improvements	7,000	4	6,996	223	6,773
910457 2022 WM Transmission/Distribution Rehab	5,000	0	5,000	0	5,000
910458 2022 Water Structures - Inspections	40	11	29	1	28
910459 Bank St (Leitrim - Dunskipper)	4,950	0	4,950	0	4,950
910460 Fuel Oil Tank Incentive Program	260	0	260	0	260
910496 Protective Lead Service Replace Prg 2022	500	0	500	0	500
910497 Cathodic Protection 2022	1,200	0	1,200	0	1,200
910498 Critical Links Risk Mitigation Meas 2022	500	0	500	0	500
910499 Water Pumping Station Facility Rehab 2022	1,360	0	1,360	0	1,360
910525 Communal Well System Rehab 2022	2,011	34	1,977	0	1,977
910526 Water Treatment Rehab 2022	8,818	75	8,743	69	8,674
910527 Water Sys SCADA & Instrument Rehab 2022	3,000	2	2,998	0	2,998
910528 Water Efficiency 2022	150	56	94	0	94
910529 New Vehicles Drinking Water 2022	176	0	176	92	84
910668 Lem & Brit Operator Room Ergonomics	300	0	300	0	300
910674 Lemieux MCC-3M and HLE1&2 Motor Replace	500	0	500	0	500
910691 Lemieux Island Hydro Room Rehab	175	0	175	16	159
910696 Britannia G3 Overhaul	650	5	645	591	54
910723 Lemieux Asphalt Replacement Phase 1	1,300	1	1,299	808	491
910765 Carp Hypo Pump & HVAC Rehab	200	1	199	40	159
910768 G3 Fan Replacement	250	1	249	0	249
910769 Lemieux Hypo Pump Replacement	250	0	250	0	250
910801 Lemieux Expansion Joint Rehab	1,200	0	1,200	0	1,200
<b>Drinking Water Services Total</b>	<b>412,809</b>	<b>137,462</b>	<b>275,347</b>	<b>32,492</b>	<b>242,855</b>
<b>Integrated Water &amp; Wastewater</b>					
906899 Sewer Access & Outfalls	25,707	14,991	10,716	955	9,761
907468 EAM Maximo Sustainment	3,294	3,287	7	3	4

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907501 SAP Integration & Mobility Deployment	6,105	5,915	190	0	190
908484 2017 Sewer & Water Repairs/Improvements	2,620	2,382	238	43	195
908576 Larkin-Larose-Lepage	7,434	3,853	3,581	2,949	632
908942 2018 Sewer & Water Repairs/Improvements	5,000	4,857	143	48	95
909279 Watermain: Albert-Slater (Bay to Elgin)	100	0	100	0	100
909403 Chapman Blvd (Dorval-Othello)	600	0	600	0	600
909694 Hydraulic Structures	1,000	0	1,000	0	1,000
909695 2020 Sewer Repairs / Improvements	10,777	7,604	3,173	2,058	1,115
909696 2020 Sewer Trenchless Rehab	1,500	263	1,237	7	1,230
910078 2021 Sewer Repairs / Improvements	9,504	110	9,394	699	8,695
910079 2021 Sewer Trenchless Rehab	4,500	9	4,491	418	4,073
910080 2021 Sewer CCTV Engineering	800	0	800	0	800
910435 McLeod (Elgin - Metcalfe)	1,200	0	1,200	0	1,200
910436 Riverside Dr Sewer Industrial-Transitway	2,380	0	2,380	0	2,380
910437 Easement Agreements Update	4,000	0	4,000	0	4,000
910438 2022 Hydraulic Structures	1,000	0	1,000	0	1,000
910439 2022 Sewer Repairs / Improvements	7,000	0	7,000	0	7,000
910440 2022 Sewer Trenchless Rehab	3,000	0	3,000	0	3,000
910441 2022 Sewer CCTV Engineering	800	51	749	0	749
910552 Data Analytics Roll Out Water Services	130	0	130	0	130
910554 Maximo Scheduler	500	0	500	0	500
910555 Water and Wastewater Plants Mobility	500	0	500	0	500
<b>Integrated Water &amp; Wastewater Total</b>	<b>99,451</b>	<b>43,322</b>	<b>56,130</b>	<b>7,181</b>	<b>48,949</b>
<b>Stormwater Services</b>					
900812 DCA-Cardinal Creek-Stormwater Facility	24,856	22,543	2,313	0	2,313
900814 DCA-EUC SW Pond 1	7,810	7,254	556	0	556
902137 Stormwater Mgmt: Rehab&Enviro Compliance	1,299	1,249	50	88	(38)
903230 DCA-SWM Ponds E 1&2 Shirley's Brook	3,250	2,482	768	0	768
903250 DCA-Storm Water Pond - Monahan Drain	8,686	7,825	861	0	861
903324 Kennedy Burnett SW Pond	16,310	11,167	5,143	4,025	1,118
903328 DCA-Area W-2 Shirleys Brook W SWM Pond 1	1,284	780	503	0	503
903940 Carp River Restoration	6,361	5,679	682	0	682
904470 LI-Britannia Villge-OttRivr FloodProtect	1,945	1,875	70	75	(5)
905792 Manotick Special Des Area SW Monitoring	74	0	74	0	74
906194 Municipal Drain Improvements	258	136	122	0	122

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907395 Municipal Drain Improvements - 2016	902	248	654	556	98
907483 2014 Infrastruct Master Plan(Stormwater)	402	384	19	10	9
907485 2019 Stormwater Master Planning	250	214	36	86	(50)
907486 Van Gaal Municipal Drain	158	151	7	7	1
907528 DCA-Riverside South SW Treatment Chamber	421	244	177	0	177
907529 DCA-Leitrim SW Pond 2	18,607	3,997	14,609	0	14,609
907535 DCA-Leitrim Pond 2 Trunk Storm Sewer	4,389	3,261	1,128	0	1,128
907536 DCA-Riverside South SW Pond 3	18,797	0	18,797	0	18,797
907537 DCA-Riverside S. Pond3 Trunk Storm Sewer	10,051	0	10,051	0	10,051
907538 DCA-Riverside South - Tributary No. 3	1,165	0	1,165	0	1,165
907539 DCA-Riverside South - Tributary No. 4	499	0	499	0	499
907540 DCA-Riverside South - Tributary No. 7A	403	0	403	0	403
907541 DCA-Riverside South - Tributary No. 7B	876	0	876	0	876
907542 DCA-Riverside South - Tributary No. 10	1,489	0	1,489	0	1,489
907543 DCA-Riverside South - Fish Habitat	2,809	0	2,809	0	2,809
907558 DCA-N5 Ultimate SW Pond	14,229	10,725	3,504	0	3,504
907560 DCA-EUC SW Pond 1 Trunk Sewers	11,045	24	11,021	0	11,021
907561 DCA-EUC SW Pond 3 Trunk Sewers	1,700	554	1,146	0	1,146
907562 DCA-Leitrim SW Pond 1 Trunk Sewers	14,074	9,183	4,891	0	4,891
907563 DCA-Riverside South SW Pond2 Trunk Sewer	5,306	381	4,925	0	4,925
907570 Hazeldean Municipal Drain	51	11	41	0	41
907602 DCA-Glou. EUC SWM Pond 1 Modification	6,864	5,320	1,544	0	1,544
907603 DCA-Glou. EUC SWM Pond 1 Fish Habitat	1,132	1,036	96	0	96
907718 Kizell Municipal Drain	1,571	359	1,212	89	1,123
907720 Cranberry Creek Municipal Drain	1,559	357	1,202	165	1,037
907805 DCA-Riverside South Pond 5	15,257	583	14,674	1	14,672
907900 DCA-Mud Creek Erosion Monito E3 Glou EUC	406	20	386	198	188
907952 DCA-Monahan Drain Strmwter FacilityRehab	2,400	1,561	839	0	839
908084 ORAP-Water Environment Strategy (WES)PH2	2,619	1,764	855	705	150
908087 John Taylor Municipal Drain	61	54	7	1	6
908252 Stormwater Mgmt Retrofit Master Plan	2,180	412	1,768	146	1,622
908360 Eastboro Municipal Drain	1,208	680	528	434	94
908361 Seabrook Municipal Drain	63	41	22	22	0
908386 Taylor Creek Erosion Works Phase 2	279	0	279	0	279
908426 Hawkins Municipal Drain	68	21	48	0	48
908427 Thomas Baxter Municipal Drain	72	17	55	0	55

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908440 ORAP-Water Environment Strategy (WES)PH2	458	441	17	18	(1)
908618 CWWF Convent Glen North Storm Sewer	1,425	905	520	18	502
908619 Graham Creek Storm Sewer	16,756	10,039	6,717	3,553	3,164
908817 McKinnons Creek Municipal Drain	239	179	60	53	7
908852 Bilberry Creek - Slope Stabilization	5,800	5,607	193	13	180
909001 Hobbs Municipal Drain	160	139	21	4	17
909002 Tompkins Diversion Municipal Drain	75	19	56	36	20
909131 2018 Stormwater Management Retrofit	12,060	2,889	9,171	593	8,578
909153 Wilson-Cowan Municipal Drain	94	65	29	17	12
909170 Kilroe Municipal Drain	75	8	67	65	2
909171 Thomas Gamble Municipal Drain	255	124	131	122	9
909172 Tasse-Regimbald Municipal Drain	75	12	63	51	12
909173 O'Keefe (Sec 78) Municipal Drain	100	10	90	28	62
909184 Regimbald Municipal Drain	441	340	101	101	(0)
909195 Simpson Municipal Drain	204	117	87	5	81
909196 Wilson-Johnston Municipal Drain	235	125	110	13	97
909216 Cassidy 2018 Municipal Drain	382	214	168	79	89
909305 Buckles Municipal Drain	103	84	19	19	0
909355 2019 Flood Plain Mapping	175	57	118	118	0
909385 2019 Drainage Culverts - CW	21,662	17,214	4,448	432	4,016
909540 DCA- Riverside South Pond 5 Storm Sewers	6,501	0	6,501	0	6,501
909626 KNL Municipal Drain	345	5	340	120	219
909708 2020 Drainage Culverts - Site-Specific	1,500	577	923	446	477
909709 2020 Drainage Culverts - CW	12,523	6,383	6,139	919	5,221
909710 2020 Drainage Culverts - Other	500	513	(13)	4	(17)
909715 Beltown Stormwater Improvements	750	0	750	0	750
909730 2020 Stormwater Master Planning	949	374	575	77	498
909743 Municipal Drain Improvements - 2020	13	2	11	10	1
909744 Stormwater Mgmt. Rhab&Enviro Compl. 2020	3,242	2,601	641	636	5
909748 Mud Creek Stream Renewal	474	0	474	0	474
909749 2020 Flood Plain Mapping	310	249	61	51	10
909750 Storm and Surface Water Rehabilitation	1,500	518	982	146	835
909815 ORAP-Water Enviro Strgy (WES) PH2 2020	934	2	932	0	932
909816 Linear Storm System Improvements	500	101	399	112	287
909898 Biltmore Extension Municipal Drain	80	47	33	24	8
909899 South Cyrville Municipal Drain	80	0	80	0	80

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909942 Britannia Village Ottawa River Flood Pro	500	423	77	77	0
909960 Johnston Municipal Drain	103	23	80	0	80
909961 Dillon-Wallace Municipal Drain	112	27	85	0	85
910049 FEA Feedmill Crk Stream Rehab	1,376	0	1,376	0	1,376
910081 2021 Drainage Culverts - CW	15,192	2,408	12,784	6,245	6,540
910082 2021 Drainage Culverts - Other	736	647	89	0	89
910083 2021 Culverts Scoping Pre/Post Eng.	700	432	268	42	226
910086 2021 Storm and Surface Water Rehabilitat	3,500	1	3,499	132	3,366
910204 Stormwater Mgmt: Rehab&Enviro Compliance	2,625	802	1,823	1,000	823
910205 Linear Storm System Improvements 2021	3,000	528	2,472	148	2,324
910344 Ditch Alterations	50	0	50	0	50
910350 Drainage Culverts Assessment	200	203	(3)	9	(12)
910398 Shirley's Brook Upgrade (KNUEA)	363	0	363	0	363
910420 2022 Flood Plain Mapping	228	53	175	67	108
910448 2022 Drainage Culverts - CW	1,663	65	1,598	493	1,105
910449 2022 Drainage Culverts - Other	594	594	0	0	0
910450 2022 Culverts Scoping Pre/Post Eng.	700	0	700	244	456
910451 2022 Drainage Culverts - Site-Specific	1,500	0	1,500	0	1,500
910452 2022 Drainage Culvert - Site Spec-Other	133	132	1	0	1
910453 2022 Drainage Culverts Assessment	400	13	387	135	252
910461 2022 Storm and Surface Water Rehab	1,500	0	1,500	203	1,297
910462 2022 Ditch Alterations	50	0	50	0	50
910515 Municipal Drain Improvements - 2022	702	0	702	0	702
910516 Stormwater Mgmt: Rehab&Enviro Compl 2022	1,960	1	1,959	0	1,959
<b>Stormwater Services Total</b>	<b>344,355</b>	<b>158,898</b>	<b>185,457</b>	<b>23,284</b>	<b>162,172</b>
<b>Wastewater Services</b>					
903252 DCA O/S-Sanitary Sewer Oversizing Progra	1,816	605	1,211	0	1,211
903345 Kanata West Pump Station & Forcemain	53,966	53,611	355	22	333
904752 DCA O/S-Barhaven S. O/S(South of Jock Ri	1,100	496	604	0	604
904755 2018 Infrastructure Master Plan (Sewer)	1,159	960	199	199	0
904985 North Kanata Sewer Ph 2	23,252	24,077	(825)	188	(1,013)
904986 Tri-Township/March Ridge Replacement	19,222	11,062	8,160	8,001	159
904988 March PS Conversion	13,249	4,768	8,481	5,037	3,445
905421 DCA-O/S Orleans S Business Park SanSewer	843	0	843	0	843
905423 DCA-O/S - Riverside S Community Sanitary	1,439	33	1,406	0	1,406



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905424 DCA-O/S -BarrhavenS Oversize NJock River	600	1	599	0	599
905425 DCA-O/S - Kanata Town Centre Trunk Sewer	349	0	349	0	349
905705 ORAP-Combined Sewage Overflow Storage	210,544	208,441	2,103	353	1,750
905745 Compassionate Grant Program	200	51	149	0	149
905964 DCA-O/S Jackson Trails Sewer	252	195	57	0	57
905990 DCA-O/S Kanata Lakes North	59	0	59	0	59
906022 DCA-O/S KW Collector Sewers	4,338	3,991	347	117	230
906099 Trunk Sewer Reliability	3,500	3,137	363	142	221
906647 ROPEC Primary Clarifier Rehab Phase 2	17,522	1,376	16,146	0	16,146
906648 ROPEC - Digester Gas Utilization	57,223	6,916	50,307	370	49,938
906650 ROPEC - Process Facility - Environ. Sys	9,676	9,371	305	44	261
906842 TSSA Registration & Compliance Upgrades	2,076	2,033	43	0	43
907060 ROPEC Secondary Clarifier Upgrades	8,296	3,540	4,756	29	4,727
907061 ROPEC Concrete Rehab & Repairs	801	749	53	46	7
907107 Acres Road PS Upgrade Phase 1 Growth	2,335	767	1,568	219	1,348
907114 Stittsville/Fernbank Intercept-Diversion	14,500	14,096	404	40	364
907382 ROPEC Aeration Blower Expansion	2,265	394	1,871	731	1,140
907392 Raw Sewage Pumping Station Upgrade	9,206	8,833	373	19	354
907393 ROPEC Condition Assesment Program	500	217	283	3	281
907462 Pump Stations Capacity Increase	8,497	532	7,965	7,498	467
907463 Stittsville PS Gravity Connect	241	0	241	0	241
907596 Hazeldean Pumping Station HVAC Rehab	2,875	2,709	166	89	78
907624 Wastewater Effluent Water Grid Rehab	2,750	1,536	1,214	0	1,214
907684 ROPEC-Sewage Treatment Rehab Prog 2015	6,055	5,748	307	273	34
907685 ROPEC-Concrete Rehab & Repairs 2015	701	691	10	3	7
907689 Flow Monitoring Rehab Program	2,674	1,902	772	144	628
907716 ROPEC Rehab of Digester	16,115	5,252	10,863	0	10,863
907807 FEA2020 N5 Sanitary Pumping Station Over	939	856	83	0	83
907809 Richmond PS & Forcemain Expansion Phase1	4,503	3,804	699	90	610
907840 FEA2018 Shea Road Pump Station	3,566	3,188	378	0	378
907897 DCA O/S-Cardinal Creek East Sanitary Ovr	75	0	75	0	75
907941 Remote Operations - Station Modification	1,676	1,520	155	37	118
908091 Collection System Condition Assess. 2016	736	647	89	71	18
908093 Linear Sewage System Improve. Prog. 2016	1,244	1,186	58	0	58
908094 SCADA Rehab & Upgrades - Remote Sewer	97	0	97	0	97
908095 Sewer Lateral Repairs 2016	4,898	4,696	202	198	4



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908096 Tartan PS Reliability Improvements	2,250	1,728	522	17	505
908099 ROPEC - Sewage Treatment Rehab Prog 2016	1,137	1,116	21	67	(46)
908181 2019 Wastewater Improvements	900	431	469	30	440
908183 Tri-Township Collector	1,500	1,232	268	134	134
908247 Richmond Forcemain Expansion	20,930	1,810	19,119	16,147	2,973
908250 Infrastructure Planning Information Mgmt	1,698	765	933	15	918
908330 RS-PS HVAC Boilers & SCADA Upgrade Const	9,609	9,533	76	147	(71)
908368 WWC PS Gas Monitoring Rehab & Upgrade	5,241	3,401	1,840	1,152	689
908390 Manotick Servicing DCA Credit	6,857	1,499	5,357	0	5,357
908425 ROPEC Screen & Degrit Repairs-Construct.	3,355	3,324	31	0	31
908429 ROPEC Digester 5 & 6 Mixing Pump Upgrade	3,500	313	3,187	58	3,129
908445 Wastewater Drainage Roofing 2019	180	70	110	0	110
908446 Collection System Condition Assess.	368	364	4	4	(0)
908451 Lab Equipment Purchase/Replacement 2018	300	23	277	67	210
908453 ROPEC - Sewage Treatment Rehab Prog 2017	2,393	2,359	34	37	(2)
908514 2017 ORAP Wet Weather IMP - Flow Reduct.	1,870	1,464	406	0	406
908521 ROPEC Electrical Master Plan	690	563	127	3	124
908558 DCA O/S N5 Trunk Sewer Oversizing	60	0	60	0	60
908660 Sewer Use Prog-Short Term Initiatives	140	97	43	21	22
908742 CWWF [Construct] ROPEC Thicken & Dewater	28,310	23,920	4,390	278	4,113
908834 WWS SCADA LAN/WAN Standards Rehab.	1,881	1,125	756	119	637
908843 Delorme PS & FM Upgrades	8,425	8,003	422	103	319
908845 ROPEC Digester 5 Condition Assessmnt Pln	275	166	109	84	25
908874 ROPEC Fire Damper Rehab	765	433	332	1	331
908892 ROPEC Activated Sludge Screws Overhaul	2,640	2,005	635	615	20
908902 Shadow Ridge Station Upgrades	1,740	1,400	340	76	264
908983 2018 ORAP Wet Weather IMP - Flow Reducti	500	241	259	44	214
909029 Protective Plumbing Program 2018	600	28	572	70	502
909031 Sewage Pumping Station Rehab Prog 2018	245	219	26	2	24
909072 Leitrim Sanitary Pump Station Expansion	423	0	423	0	423
909158 ROPEC RSPS Motor & Drive Rehab.	2,896	1,778	1,118	155	962
909187 ROPEC Screen & Degrit Conveyor Replacmnt	250	212	38	2	35
909203 Tech Services Bldg Chiller Piping Repl.	759	347	412	20	392
909217 Pumping Stn HVAC & Isolation Valve Rehab	2,707	1,987	720	255	465
909219 Munster 2 Reliability Improvements	1,661	1,620	41	5	36
909225 Primary Clarifiers Odour Control System	2,669	164	2,505	42	2,463

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909226 Flow Through Station Rehabs	875	770	105	104	1
909245 Forcemain Condition Assessment & Rehab	2,250	691	1,559	312	1,247
909251 ROPEC RAS/WAS Ferrous System Replacement	1,314	335	979	155	824
909258 ROPEC RSPS Interior Wall Condition Asses	350	47	303	2	301
909270 ROPEC Sub#1 Transformers Replacement	131	79	52	1	51
909273 Harvard PS Detailed Design & Contract Ad	500	472	28	28	0
909276 ROPEC diesel generators maint. contract	250	238	12	0	12
909295 Screen and Degrit Hydraulic Study	200	188	12	12	0
909323 WWC Medium Voltage Maintenance	1,486	1,298	188	0	188
909331 Sewage Pumping Station Rehab Prog 2019	5,572	4,832	740	739	1
909341 ROPEC PolymerPipe ConditionAssess-repair	1,088	425	663	621	43
909342 ROPEC Sodium Bisulphate Piping CondAsses	680	373	307	223	85
909357 South Nepean Collector Ph3	11,438	7,736	3,702	959	2,743
909375 2019 Sewer Access & Outfalls	2,000	1,060	940	91	849
909376 2019 Sewer Repairs / Improvements	9,821	8,346	1,475	249	1,226
909377 2019 Sewer Trenchless Rehab	4,400	2,009	2,391	489	1,901
909393 2019 ORAP Wet Weather IMP	1,057	993	64	0	64
909491 ROPEC Disinfection Bldg Rehab	1,492	898	594	55	539
909542 DCA-O/S Half Moon Bay N San Sewer	404	0	404	0	404
909567 Dogwood Pump Station Rehab	855	808	47	43	4
909568 Hemlock Pumping Station Rehab	550	499	51	51	0
909585 Leonard Laporte & St.Joseph PS rehab	1,240	732	508	435	73
909594 ROPEC Glycol Loop Extension	700	23	677	0	677
909602 Cumberland 2-3-4 PS Rehab	250	209	41	19	22
909617 ROPEC Medium Voltage Mtce Phase2	809	589	220	13	207
909623 Cambridge St - Sewer Replacement	2,629	2,300	329	13	316
909716 Mooney's Bay Trunk Sewer	8,500	765	7,735	223	7,512
909717 2020 ORAP Wet Weather IMP	4,000	1,406	2,594	325	2,270
909724 Pump Stations Capacity Renewal	4,575	355	4,220	1,323	2,897
909745 Acres Road PS Phase 1 Renewal	3,974	178	3,796	1,552	2,244
909805 Linear Sewage System Improve. Prog. 2020	500	387	113	19	94
909806 Sewer Lateral Repairs 2020	3,725	3,531	194	187	7
909807 Sewage Pumping Station Rehab Prog 2020	5,581	2,792	2,789	1,143	1,646
909808 ROPEC - Sewage Treatment Rehab Prog 2020	9,000	1,944	7,056	1,032	6,024
909810 New Vehicles Waste Water - 2020	119	109	10	0	10
909900 Walkley Screen Replacement	170	0	170	0	170

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909902 Windsor Park PS Rehab	250	211	39	40	(1)
909906 Primary Clarifiers Inlet Gate Replacemen	4,173	1,158	3,015	23	2,992
909938 RSPS to S&D Conduit Flume Channel	360	0	360	157	203
909969 ROPEC Master Plan	1,010	596	414	341	72
909972 RCAF and RCMP PS Rehabilitation	752	460	292	131	161
909992 Richmond Pump Station	12,736	25	12,711	0	12,711
909994 2020 Wastewater Asset Management Plan	250	138	112	0	112
909997 Acres & Hazeldean PSs Odour Control	3,911	3,563	348	267	81
910009 Harvard PS Construction	2,700	1,634	1,066	1,063	3
910035 WWS SCADA LAN Phase 1	5,703	304	5,399	1,620	3,779
910040 Sunland and Orchard View Properties	1,747	1,135	612	96	516
910048 2021 Infrastructure Master Plan (Sewer)	769	80	689	122	567
910061 Wastewater Drainage Roofing 2021	50	34	16	2	14
910062 Flow Monitoring System Rehab. 2021	200	11	189	0	189
910063 SCADA Rehab & Upgrades-Remote Sewer 2021	759	99	660	54	606
910064 Collection System Condition Assess. 2021	1,160	225	935	0	935
910076 Carp Wastewater PS Upgrade/Overflow	4,084	2	4,082	0	4,082
910077 2021 Flood Plain Mapping	240	97	143	114	29
910087 2021 ORAP Wet Weather IMP	2,150	100	2,050	60	1,990
910120 Linear Sewage System Improve. Prog. 2021	1,251	420	831	254	577
910121 Sewer Lateral Repairs 2021	4,500	1,112	3,388	0	3,388
910123 DCA-O/S KW Trunk Sewers - 130 Huntmar	75	0	75	0	75
910124 Sewage Pumping Station Rehab Prog 2021	14,443	1,717	12,726	10,843	1,884
910130 ROPEC - Sewage Treatment Rehab Prog 2021	11,633	810	10,823	1,073	9,751
910131 ROPEC - Concrete Rehab & Repairs 2021	547	69	478	62	416
910132 Wastewater Facilites Upgrade 2021	500	0	500	0	500
910222 Tenth Line Forcemain Rehab	168	88	80	76	4
910223 Leitrim Forcemain Rehab	158	0	158	0	158
910224 S&D Classifiers Replacement	700	47	653	465	187
910245 East Boiler #1 and #2 Controls Upgrade	400	160	240	231	8
910258 Orient Park PS Power Supply Upgrade	421	49	372	38	334
910259 2020 ARC Flash WWC Remote Facilities	200	26	174	108	66
910265 Hazeldean Generator Replacement Study	375	94	281	184	97
910279 WWC Diesel Gen & Fuel System Rehab	763	174	589	0	589
910301 ROPEC PC Air Compressors Rehab	1,000	105	895	0	895
910311 PC Sludge & Sump Pumps Rehab	250	151	99	0	99

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910326 Reliability Eng Wastewater Treatment	532	181	351	86	265
910463 2022 ORAP Wet Weather IMP	1,000	0	1,000	0	1,000
910530 New Vehicles Wastewater 2022	250	0	250	3	247
910531 SCADA Rehab & Upgrades-Remote Sewer 2022	4,000	0	4,000	0	4,000
910532 Collection System Condition Assess. 2022	1,411	0	1,411	695	716
910533 Sewer Lateral Repairs 2022	4,500	0	4,500	0	4,500
910534 Sewage Pumping Station Rehab Prog 2022	9,938	943	8,995	2,353	6,642
910535 ROPEC - Sewage Treatment Rehab Prog 2022	14,392	123	14,269	0	14,268
910536 Wastewater Facilites Upgrade 2022	500	0	500	0	500
910537 Wastewater Drainage Roofing 2022	80	0	80	0	80
910538 ROPEC - SCADA Rehab. & Upgrades 2022	3,620	282	3,338	80	3,258
910539 Lab Equipment Purchase/Replacement 2022	350	0	350	0	350
910686 MECP Sewage Overflow & Bypasses Program	1,439	0	1,439	0	1,439
910692 Hazeldean PS Generator D&C	1,700	0	1,700	0	1,700
910693 SSRJB Decommissioning Functional Design	150	0	150	0	150
910729 Kanata West PS Construction	3,120	0	3,120	0	3,120
910736 LRT IWSD Rate funded Variations	6,656	1,104	5,553	474	5,079
910745 Reliability Engineering WWC Remotes	338	17	321	118	202
910759 ROPEC Polymer Piping Rehab Construction	4,350	7	4,343	0	4,343
910767 WWC 3-yr PM Hazeldean & Woodroffe PS	931	0	931	0	931
910774 St Joseph PS Reliability Upgrade	216	0	216	0	216
<b>Wastewater Services Total</b>	<b>870,000</b>	<b>532,691</b>	<b>337,309</b>	<b>75,387</b>	<b>261,922</b>
<b>Grand Total</b>	<b>1,726,615</b>	<b>872,374</b>	<b>854,241</b>	<b>138,344</b>	<b>715,898</b>