



Standing Committee on Environmental Protection, Water and Waste Management

Tax Supported Programs













Better roads and transit.
Safer communities.
More housing.

Draft BUDGET 2019

Table of Contents

Standing Committee on Environmental Protection, Water and Waste Management - Tax Supported Programs

Service Area Summary	. '
Infrastructure Services	. 1
Resiliency and Natural Systems	.3
Solid Waste Services	. 4
Forestry Services	.6
Operating Resource Requirement Summary	. 7
Infrastructure Services	3.
Operating Resource Requirement	.8
User Fees	. (
Resiliancy and Natural Systems Policy	(
Operating Resource Requirement	(
Solid Waste Services	11
Operating Resource Requirement	11
User Fees	12
Forestry Services	4
Operating Resource Requirement	4
User Fees	15
Capital Program Funding Summary	16
Supplemental Operating & Capital Information	
Analysis Summary	

Infrastructure Services	19
Analysis	19
Explanatory Notes	21
Resiliency and Natural Systems Policy	24
Analysis	24
Explanatory Notes	25
Solid Waste Services	26
Analysis	26
Explanatory Notes	28
Forestry Services	30
Analysis	30
Explanatory Notes	31
Capital Budget	31
Project Detail	31
Environment Services.	33
Solid Waste	36
4 Year Capital Plan	46
Capital Works-In-Progress	47

Planning, Infrastructure and Economic Development Infrastructure Services (IS) 2019 Service Area Summary

Description

Infrastructure Services (IS) is part of the Planning, Infrastructure and Economic Development (PIED) Department, a department that champions the city-building agenda – from planning and delivering growth opportunities and infrastructure, to managing City assets, to fostering economic prosperity.

Vision

To build a better Ottawa for all to enjoy, today and into the future.

Mission

To implement city-building priorities from planning and delivering infrastructure projects, to managing infrastructure assets and investments.

Programs/Services Offered

The following are services offered by Infrastructure Services:

Asset Management

Administer and optimize the lifecycle of municipal infrastructure valued at over \$42 billion, maintain asset inventory, undertake condition and performance assessments, develop risk-based renewal strategies and define investment needs.

Lead water resource master planning, source water protection and capital program definition. Manage the City's Comprehensive Asset Management (CAM) Program.

Quality Management

Provide overall quality management on infrastructure projects in terms of design guidelines and construction standards, material quality and project delivery practices.

Design and Construction

Manage the design and construction of new and renewal of existing municipal infrastructure, buildings and parks. This is approximately \$500 million in capital projects annually.

Planning, Infrastructure and Economic Development Resiliency and Natural Systems 2019 Service Area Summary

Description

Provides strategic policy expertise and coordination to the City in the areas of natural systems & climate change mitigation and adaptation, while delivering clear, consistent environmental policies to support planning and growth management of the City while minimizing negative impacts and building resilience.

Programs/Services Offered

It also fosters a positive public persona of Ottawa as a healthy liveable city through policy, strategies, public engagement by promoting stewardship of the natural environment and a sustainable, resilient city by developing and facilitating the implementation of watershed and sub-watershed plans, environmental plans, protocols, guidelines, by-laws and other tools to inform and influence the corporation's environmental and city building objectives.

Public Works & Environmental Services Department Solid Waste Services 2019 Service Area Summary

Description

Solid Waste Services is responsible for the development, management, and environmentally sound operation of the residential solid waste management system for the City.

This includes:

- Long-term strategic planning of programs and facilities to ensure alignment with future growth and legislative requirements such as: the waste management master plan, service levels reviews and technology and environmental assessments
- Providing services and facilities for the collection, diversion and disposal of residential waste, organics, recycling, and household hazardous waste
- · Comprehensive management, operation and maintenance of City-owned landfills

Programs/Services Offered

- Curbside residential waste collection and disposal
- Multi-residential waste collection and disposal
- Waste collection at City facilities
- Residential waste diversion programs (Green Bin program, Blue/Black Box Program, Household Hazardous Waste depots etc.)
- Landfill operations management

- Parks recycling program
- Yellow Bag program
- Biosolid Land Application program
- Graffiti removal from City assets

Public Works & Environmental Services Department Forestry Services 2019 Service Area Summary

Description

Forestry Services manages all aspects of the City's 10,000 hectares of urban and rural forests including 346,000 street and park trees in order to preserve, protect, maintain and enhance forest cover in the Nation's Capital.

Programs/Services Offered

- Tree and forest maintenance, which includes pruning, removal, stumping, watering and fertilizing activities
- Invasive pest management (ex.: Emerald Ash Borer)
- Infill Tree Conservation program
- Tree nursery operations, which includes tree planting, watering and establishment pruning activities
- Trees in Trust program
- Streetscape, park, and facility tree planting
- Community planting projects
- Commemorative Tree program
- Green Acres Ottawa's rural reforestation program
- Schoolyard Tree Planting Grant program

City of Ottawa Standing Committee on Environmental Protection, Water and Waste Management- Operating Resource Requirement In Thousands (\$000)

	2017	2018		2019		
	Actual	Forecast	Budget	Estimate	\$ Change over 2018 Budget	
Expenditures by Program						
Infrastructure Services	25,316	28,704	29,890	31,400	1,510	
Resiliency and Natural Systems Policy	1,813	1,411	1,530	1,545	15	
Solid Waste Services	74,261	76,743	74,724	77,213	2,489	
Forestry Services	18,043	18,477	18,290	18,634	344	
Gross Expenditure	119,433	125,335	·	128,792	4,358	
Recoveries & Allocations	-23,954	-25,953	-25,980	-27,330	-1,350	
Revenue	-57,322	-51,258	-51,154	-52,004	-850	
Net Requirement	38,157	48,124	-	-		
Expenditures by Type						
Salaries, Wages & Benefits	43,537	45,752	46,630	48,889	2,259	
Overtime	1,405	1,855		1,078	16	
Material & Services	57,406	59,680	,	61,535	1,525	
Transfers/Grants/Financial Charges	5,400	5,095	-	5,377	0	
Fleet Costs	9,646	10,743	8,943	9,501	558	
Program Facility Costs	, 0	0	0	0	0	
Other Internal Costs	2,039	2,210	2,412	2,412	0	
Gross Expenditures	119,433	125,335	124,434	128,792	4,358	
Recoveries & Allocations	-23,954	-25,953	-25,980	-27,330	-1,350	
Net Expenditure	95,479	99,382	98,454	101,462	3,008	
Revenues By Type						
Federal	0	0	0	0	0	
Provincial	-6,190	-6,645	-6,129	-5,824	305	
Municipal	0,100	0,0.0	0,120	0,021	0	
Own Funds	0	0	0	0	0	
Fees and Services	-51,132	-44,613	-45,025	-46,180	-1,155	
Fines	0	0	0	0	0	
Other	0	0	0	0	0	
Total Revenue	-57,322	-51,258	-51,154	-52,004	-850	
Net Requirement	38,157	48,124	•	49,458	2,158	
Full Time Equivalents	-	·	367.13	374.13	7.00	

City of Ottawa Planning, Infrastructure & Economic Development Department Infrastructure Services - Operating Resource Requirement In Thousands (\$000)

III Tilousanus (4000)	2017	2018		2019		
	Actual	Forecast	Budget	Estimate	\$ Change over 2018 Budget	
Expenditures by Program						
Director's Office	626	575	608	628	20	
Quality Assurance	2,289	2,639	2,886	2,921	35	
Combined Sewage Storage Tunnel Project	393	703	160	175		
Design & Construction - Branch 1	6,215	4,764	4,766	5,116		
Design & Construction - Branch 2	5,536	7,812	8,139	8,664	525	
Asset Management	10,257	12,211	13,331	13,896	565	
Gross Expenditure	25,316	28,704	29,890	31,400	1,510	
Recoveries & Allocations	-20,101	-22,426	-23,222	-24,572	-1,350	
Revenue	16	-15	-39	-39	0	
Net Requirement	5,231	6,263	6,629	6,789	160	
Expenditures by Type						
Salaries, Wages & Benefits	22,372	24,360	24,857	26,367	1,510	
Overtime	177	198	249	249	0	
Material & Services	2,674	3,769	3,806	3,806	0	
Transfers/Grants/Financial Charges	0	0	0	0	0	
Fleet Costs	90	97	97	97	0	
Program Facility Costs	0	0	0	0	0	
Other Internal Costs	3	280	881	881	0	
Gross Expenditures	25,316	28,704	29,890	31,400	1,510	
Recoveries & Allocations	-20,101	-22,426	-23,222	-24,572	-1,350	
Net Expenditure	5,215	6,278	6,668	6,828	160	
Revenues By Type						
Federal	0	0	0	0	0	
Provincial	0	0	0	0	0	
Municipal	0	0	0	0	0	
Own Funds	0	0	0	0	0	
Fees and Services	16	-15	-39	-39	0	
Fines	0	0	0	0	0	
Other	0	0	0	0	0	
Total Revenue	16	-15	-39	-39	0	
Net Requirement	5,231	6,263	6,629	6,789	160	
Full Time Equivalents			208.41	215.41	7.00	

City of Ottawa
Planning, Infrastructure & Economic Development Department
Infrastructure Services - User Fees

	2017 Rate \$	2018 Rate \$	2019 Rate \$	% Change Over 2018	% Change Over 2017	Effective Date	2019 Revenue (\$000)
Road Cut Degradation Fees							
Road Cut Pavement Degradation fees (per square m	eter)						
2 years or less	35.50	36.20	37.00	2.2%	4.2%	01-Apr-19	
2 to 4 years	29.50	30.10	30.85	2.5%	4.6%	01-Apr-19	
4 to 7 years	23.70	24.20	24.80	2.5%	4.6%	01-Apr-19	
7 to 10 years	14.80	15.10	15.50	2.6%	4.7%	01-Apr-19	
10 years or more	5.90	6.00	6.15	2.5%	4.2%	01-Apr-19	
Contract Manual							
Contract Manual (CD only)	76.70	80.00	82.00	2.5%	6.9%	01-Apr-19	
Guideline Publications							
Guideline Publications (CD only)	76.70	80.00	82.00	2.5%	6.9%	01-Apr-19	
Accident Inspections							
3 hour minimum (hourly rate)	156.10	160.00	164.00	2.5%	5.1%	01-Apr-19	
Any third party charges (cost recovery)	100%	100%	100%	0.0%	0.0%	01-Apr-19	
Transfer of Review							
Transfer of Review Fees are per the Ministry of							
Environment and Climate Change							
Administration and Overhead Charge							
Applied to the overall cost recovery for any works							
undertaken for third parties not covered under other							
agreements, such as developers, school boards,							
universities or general parties	15%	15%	15%	0.0%	0.0%	01-Apr-19	
Total Departmental							0

City of Ottawa
Planning, Infrastructure & Economic Development Department
Resiliancy and Natural Systems Policy - Operating Resource Requirement
In Thousands (\$000)

	2017	2017 2018		2019	
	Actual	Forecast	Budget	Estimate	\$ Change over 2018 Budget
Expenditures by Program					
Resiliency and Natural Systems Policy	1,813	1,411	1,530		15
Gross Expenditure	1,813	1,411	1,530	1,545	15
Recoveries & Allocations	-86	-13	0	0	0
Revenue	0	0	0	0	0
Net Requirement	1,727	1,398	1,530	1,545	15
Expenditures by Type					
Salaries, Wages & Benefits	1,237	1,303	1,211	1,226	15
Overtime	14	8	11	11	0
Material & Services	192	38	258	258	0
Transfers/Grants/Financial Charges	362	57	50	50	0
Fleet Costs	0	0	0	0	0
Program Facility Costs	0	0	0	0	0
Other Internal Costs	8	5	0	0	0
Gross Expenditures	1,813	1,411	1,530	1,545	15
Recoveries & Allocations	-86	-13	0	0	0
Net Expenditure	1,727	1,398	1,530	1,545	15
Revenues By Type					
Federal	0	0	0	0	0
Provincial	0	0	0	0	0
Municipal	0	0	0	0	0
Own Funds	0	0	0	0	0
Fees and Services	0	0	0	0	0
Fines	0	0	0	0	0
Other	0	0	0	0	0
Total Revenue	0	0	0	0	0
Net Requirement	1,727	1,398	1,530	1,545	15
Full Time Equivalents			9.00	9.00	0.00

City of Ottawa Public Works and Environmental Services Department Solid Waste Services - Operating Resource Requirement In Thousands (\$000)

In Thousands (\$000)	2017	20	18	2019	
	Actual	Forecast	Budget	Estimate	\$ Change over 2018 Budget
Expenditures by Program					
Director's Office	828	752	481	490	9
Diversion/Recycling	41,382	42,774	42,508	44,009	1,501
Graffiti Management	826	968	803	819	16
Soil Management	1,390	436	650	650	0
Landfill Operations/Disposal	8,836	9,801	8,468	8,446	-22
Garbage Collection	14,868	16,125	15,804	16,735	931
Other	384	140	263	317	54
Solid Waste Non Departmental	5,747	5,747	5,747	5,747	0
Gross Expenditure	74,261	76,743	74,724	77,213	2,489
Recoveries & Allocations	-3,612	-3,461	-2,758	-2,758	0
Revenue	-57,073	-50,952	-51,070	-51,920	-850
Net Requirement	13,576	22,330	20,896	22,535	1,639
Expenditures by Type					
Salaries, Wages & Benefits	12,654	12,506	12,784	13,331	547
Overtime	908	1,286	634	647	13
Material & Services	45,405	46,808	46,750	48,275	1,525
Transfers/Grants/Financial Charges	5,033	5,033	5,327	5,327	0
Fleet Costs	8,384	9,364	7,719	8,123	404
Program Facility Costs	0	0	0	0	0
Other Internal Costs	1,877	1,746	1,510	1,510	0
Gross Expenditures	74,261	76,743	74,724	77,213	2,489
Recoveries & Allocations	-3,612	-3,461	-2,758	-2,758	0
Net Expenditure	70,649	73,282	71,966	74,455	2,489
Revenues By Type					
Federal	0	0	0	0	0
Provincial	-6,190	-6,497	-6,129	-5,824	305
Municipal	0	0	0	0	0
Own Funds	0	0	0	0	0
Fees and Services	-50,883	-44,455	-44,941	-46,096	-1,155
Fines	0	0	0	0	0
Other	0	0	0	0	0
Total Revenue	-57,073	-50,952	-51,070	-51,920	-850
Net Requirement	13,576	22,330	20,896	22,535	1,639
Full Time Equivalents			68.40	68.40	0.00

City of Ottawa
Public Works and Environmental Services Department
Solid Waste Services - User Fees

	2017 Rate \$	2018 Rate \$	2019 Rate \$	% Change Over 2018	% Change Over 2017	Effective Date	2019 Revenue (\$000)
Solid Waste - User Fees							
Single Family Household	84.00	86.00	88.00	2.3%	4.8%	01-Jan-19	-580
Multi Residential Household	41.00	42.00	43.00	2.4%	4.9%	01-Jan-19	-110
Yellow Bag per bag fee	3.75	3.75	3.90	4.0%	4.0%	01-May-19	
Landfill Operations - Tipping Fees							-35
Waste Materials							
Garbage <=100 kg (minimum)	10.80	11.00	11.20	1.8%	3.7%	01-May-19	
Garbage >100 kg (per tonne)	108.00	110.00	112.00	1.8%	3.7%	01-May-19	
						•	
Mixed garbage & recyclable material <=100 kg (minimum)	21.60	22.00	22.40	1.8%	3.7%	01-May-19	
Mixed garbage & recyclable material >100 kg (per tonne)	216.00	220.00	224.00	1.8%	3.7%	01-May-19	
Asbestos <=250 kg per load flat rate (minimum)	119.00	121.00	123.00	1.7%	3.4%	01-May-19	
Asbestos >250 kg (per tonne)	476.00	484.00	494.00	2.1%	3.8%	01-May-19	
Diversion Program - Clean Loads						j	
Metal /Tires	Free	Free	Free	N/A	N/A		
E-waste	Free	Free	Free	N/A	N/A		
Blue Box Material	Free	Free	Free	N/A	N/A		
Cardboard <=100 kg (minimum)	5.20	5.30	5.40	1.9%	N/A	01-May-19	
Cardboard >100 kg (per tonne)	52.00	53.00	54.00	1.9%	N/A	01-May-19	
Leaf and Yard Waste under 10 cm in diameter <=100 kg							
(minimum)	5.20	3.75	3.80	1.3%	-26.9%	01-May-19	
Leaf and Yard Waste >100 kg (per tonne)	52.00	37.50	38.00	1.3%	-26.9%	01-May-19	
Soil/Fill <=200 kg (minimum) (Top soil, sand, sod, asphalt,							
masonry, concrete without rebar)	5.40	5.50	3.20	-41.8%	-40.7%	01-May-19	
Soil/Fill >200 kg (per tonne) (Top soil, sand, sod, asphalt,							
masonry, concrete without rebar) if generated from an							
authorized project that is fully or partially funded by the							
City	27.00	27.50	16.00	-41.8%	-40.7%	01-May-19	
Soil/Fill >200 kg (per tonne) (Top soil, sand, sod, asphalt,							
masonry, concrete without rebar)	27.00	27.50	27.50	0.0%	1.9%	01-May-19	
Woodchips <=200 kg (minimum)	5.40	5.50	5.60	1.8%	N/A	01-May-19	
Woodchips >200 kg (per tonne)	27.00	27.50	28.00	1.8%	3.7%	01-May-19	

City of Ottawa Public Works and Environmental Services Department Solid Waste Services - User Fees

	2017 Rate \$	2018 Rate \$	2019 Rate \$	% Change Over 2018	% Change Over 2017	Effective Date	2019 Revenue (\$000)
Retail Materials Program							
Municipal Potting Soil <=200 kg (minimum)	7.80	8.00	8.20	2.5%	5.1%	01-May-19	-5
Municipal Potting Soil >200 kg (per tonne)	39.00	40.00	41.00	2.5%	5.1%	01-May-19	
Total Departmental							-730

City of Ottawa
Public Works & Environmental Services Department
Forestry Services - Operating Resource Requirement
In Thousands (\$000)

	2017	20	18	2019	
	Actual	Forecast	Budget	Estimate	\$ Change over 2018 Budget
Expenditures by Program					
Forestry Services	18,043	18,477	18,290	18,634	344
Gross Expenditure	18,043	18,477	18,290	18,634	344
Recoveries & Allocations	-155	-53	0	0	0
Revenue	-265	-291	-45	-45	C
Net Requirement	17,623	18,133	18,245	18,589	344
Expenditures by Type					
Salaries, Wages & Benefits	7,274	7,583	7,778	7,965	187
Overtime	306	363	168	171	3
Material & Services	9,135	9,065	9,196	9,196	C
Transfers/Grants/Financial Charges	5	5	0	0	C
Fleet Costs	1,172	1,282	1,127	1,281	154
Program Facility Costs	0	0	0	0	C
Other Internal Costs	151	179	21	21	C
Gross Expenditures	18,043	18,477	18,290	18,634	344
Recoveries & Allocations	-155	-53	0	0	0
Net Expenditure	17,888	18,424	18,290	18,634	344
Revenues By Type					
Federal	0	0	0	0	O
Provincial	0	-148	0	0	C
Municipal	0	0	0	0	C
Own Funds	0	0	0	0	C
Fees and Services	-265	-143	-45	-45	C
Fines	0	0	0	0	C
Other	0	0	0	0	C
Total Revenue	-265	-291	-45	-45	0
Net Requirement	17,623	18,133	18,245	18,589	344
Full Time Equivalents			81.32	81.32	0.00

City of Ottawa Public Works & Environmental Services Department Forestry Services - User Fees

Tree Planting Deposit - Low Rise Housing 700.00 700.00 700.00 0.0% 0.0% Establish a permit fee for Distinctive Tree Bylaw 2009-200 part 3 - Small Property Component For properties one hectare or less in size, and condominium and multi-residential properties of all sizes, if a landowner wants to remove a tree that is greater than 50 centimetres (20 inches) in diameter, they must obtain a Distinctive Tree Permit from the City. Administration and Overhead charge will be applied to the overall cost recovery for any works or accident recoveries undertaken by Forestry Services on behalf of Federal/Provincial governments, Hydro Ottawa, school boards, universities/colleges, municipalities, general persons/parties and developers.		2017 Rate \$	2018 Rate \$	2019 Rate \$	% Change Over 2018	% Change Over 2017	Effective Date	2019 Revenue (\$000)
2009-200 part 3 - Small Property Component For properties one hectare or less in size, and condominium and multi-residential properties of all sizes, if a landowner wants to remove a tree that is greater than 50 centimetres (20 inches) in diameter, they must obtain a Distinctive Tree Permit from the City. Administration and Overhead charge will be applied to the overall cost recovery for any works or accident recoveries undertaken by Forestry Services on behalf of Federal/Provincial governments, Hydro Ottawa, school boards, universities/colleges, municipalities, general	Tree Planting Deposit - Low Rise Housing	700.00	700.00	700.00	0.0%	0.0%		
to the overall cost recovery for any works or accident recoveries undertaken by Forestry Services on behalf of Federal/Provincial 15% 15% N/A N/A governments, Hydro Ottawa, school boards, universities/colleges, municipalities, general	2009-200 part 3 - Small Property Component For properties one hectare or less in size, and condominium and multi-residential properties of all sizes, if a landowner wants to remove a tree that is greater than 50 centimetres (20 inches) in diameter, they must obtain a Distinctive Tree Permit	100.00	100.00	100.00	0.0%	N/A		
Total Departmental	to the overall cost recovery for any works or accident recoveries undertaken by Forestry Services on behalf of Federal/Provincial governments, Hydro Ottawa, school boards, universities/colleges, municipalities, general persons/parties and developers.	15%	15%	15%	N/A	N/A		

City Of Ottawa
2019 Draft Capital Budget
Standing Committee on Environmental Protection, Water and Waste Management - Tax
Capital Funding Summary
In Thousands (\$000's)

Project Description	Revenues	Capital Reserve Fund	Gas Tax	Development Charges	Debt Funding	Total
Environment						
Renewal of City Assets						
908880 Energy Evolution	-	150	-	-	-	150
Renewal of City Assets Total	-	150	-	-	-	150
Service Enhancement						
909452 Energy Mgmt & Investment Strategy 2019	-	3,000	-	-	-	3,000
Service Enhancement Total	-	3,000	-	-	-	3,000
Environment Total	-	3,150	-	-	-	3,150
Solid Waste						
Growth						
908686 Solid Waste Fleet Growth - Landfill 2019	-	450	_	-	-	450
Growth Total	-	450	-	-	-	450
Regulatory						
907238 Landfill Disposal Stage 2 Capping	-	7,579	-	-	-	7,579
907353 Trail Rd Gas Collection System Expansion	-	1,500	-	-	-	1,500
907799 Landfill Disposal Stage 5 Development	-	1,011	-	-	-	1,011
907815 Trail Road Landfill - Exp & Development	-	750	-	-	-	750
907816 Groundwater Management	-	300	-	-	-	300
909430 Nepean Landfill Cap Repair	-	550	-	-	-	550
907043 Springhill Landfill	2,000	-	-	-	-	2,000
Regulatory Total	2,000	11,690	-	-	-	13,690
Service Enhancement						
909431 Long Term Planning	-	900	-	-	-	900
Service Enhancement Total	-	900	-	-	-	900
Solid Waste Total	2,000	13,040	-	-		15,040
Total	2,000	16,190	-	-	-	18,190

City of Ottawa
Standing Committee on Environmental Protection, Water and Waste Management - Operating Resource Requirement Analysis
In Thousands (\$000)

	20	018 Baseline		20	19 Adjustme	ents	2019	
	Forecast	Budget	Adj. to Base Budget	Maintain Services	Growth	User Fees & Revenues	Estimate	\$ Change over 2018 Budget
Expenditures by Program								
Infrastructure Services	28,704	29,890	0	715	795	0	31,400	1,510
Resiliency and Natural Systems Policy	1,411	1,530	0	15	0	0	1,545	15
Solid Waste Services	76,743	74,724	0	1,764	725	0	77,213	2,489
Forestry Services	18,477	18,290	0	344	0	0	18,634	344
Gross Expenditure	125,335	124,434	0	2,838	1,520	0	128,792	4,358
Recoveries & Allocations	-25,953	-25,980	0	-555	-795	0	-27,330	-1,350
Revenue	-51,258	-51,154	0	305	-425	-730	-52,004	-850
Net Requirement	48,124	47,300	0	2,588	300	-730	49,458	2,158
Expenditures by Type								
Salaries, Wages & Benefits	45,752	46,630	0	1,324	935	0	48,889	2,259
Overtime	1,855	1,062	0	16	0	0	1,078	16
Material & Services	59,680	60,010	0	940	585	0	61,535	1,525
Transfers/Grants/Financial Charges	5,095	5,377	0	0	0	0	5,377	0
Fleet Costs	10,743	8,943	0	558	0	0	9,501	558
Program Facility Costs	0	0	0	0	0	0	0	0
Other Internal Costs	2,210	2,412	0	0	0	0	2,412	0
Gross Expenditures	125,335	124,434	0	2,838	1,520	0	128,792	4,358
Recoveries & Allocations	-25,953	-25,980	0	-555	-795	0	-27,330	-1,350
Net Expenditure	99,382	98,454	0	2,283	725	0	101,462	3,008
Percent of 2018 Net Expenditure Budge	et		0.0%	2.3%	0.7%	0.0%	3.1%	

City of Ottawa Standing Committee on Environmental Protection, Water and Waste Management - Operating Resource Requirement Analysis In Thousands (\$000)

	2018 Baseline			2019 Adjustments			2019	
	Forecast	Budget	Adj. to Base Budget	Maintain Services	Growth	User Fees & Revenues	Estimate	\$ Change over 2018 Budget
Revenues By Type								
Federal	0	0	0	0	0	0	0	0
Provincial	-6,645	-6,129	0	305	0	0	-5,824	305
Municipal	0	0	0	0	0	0	0	0
Own Funds	0	0	0	0	0	0	0	0
Fees and Services	-44,613	-45,025	0	0	-425	-730	-46,180	-1,155
Fines	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0
Total Revenue	-51,258	-51,154	0	305	-425	-730	-52,004	-850
Percent of 2018 Revenue Budget			0.0%	-0.6%	0.8%	1.4%	1.7%	
Net Requirement	48,124	47,300	0	2,588	300	-730	49,458	2,158
Percent of 2018 Net Requirement Budg	jet		0.0%	5.5%	0.6%	-1.5%	4.6%	
Full Time Equivalents (FTE's)		367.13	0.00	0.00	7.00	0.00	374.13	7.00
Percent of 2018 FTE's			0.0%	0.0%	1.9%	0.0%	1.9%	

City of Ottawa Planning, Infrastructure & Economic Development Department Infrastructure Services - Operating Resource Requirement Analysis In Thousands (\$000)

	2	018 Baseline	9	20	19 Adjustm	ents	2019	
	Forecast	Budget	Adj. to Base Budget	Maintain Services	Growth	User Fees & Revenues	Estimate	\$ Change over 2018 Budget
Expenditures by Program								
Director's Office	575	608	0	20	0	0	628	20
Quality Assurance	2,639	2,886	0	35	0	0	2,921	35
Combined Sewage Storage Tunnel Project	703	160	0	15	0	0	175	15
Design & Construction - Branch 1	4,764	4,766	0	140	210	0	5,116	350
Design & Construction - Branch 2	7,812	8,139	0	275	250	0	8,664	525
Asset Management	12,211	13,331	0	230	335	0	13,896	565
Gross Expenditure	28,704	29,890	0	715	795	0	31,400	1,510
Recoveries & Allocations	-22,426	-23,222	0	-555	-795	0	-24,572	-1,350
Revenue	-15	-39	0	0	0	0	-39	0
Net Requirement	6,263	6,629	0	160	0	0	6,789	160
Expenditures by Type								
Salaries, Wages & Benefits	24,360	24,857		715	795	0	26,367	1,510
Overtime	198	249	0	0	0	0	249	0
Material & Services	3,769	3,806	0	0	0	0	3,806	0
Transfers/Grants/Financial Charges	0	0	0	0	0	0	0	0
Fleet Costs	97	97	0	0	0	0	97	0
Program Facility Costs	0	0	0	0	0	0	0	0
Other Internal Costs	280	881	0	0	0	0	881	0
Gross Expenditures	28,704	29,890	0	715	795	0	31,400	1,510
Recoveries & Allocations	-22,426	-23,222	0	-555	-795	0	-24,572	-1,350
Net Expenditure	6,278	6,668	0	160	0	0	6,828	160
Percent of 2018 Net Expenditure Budget			0.0%	2.4%	0.0%	0.0%	2.4%	

City of Ottawa Planning, Infrastructure & Economic Development Department Infrastructure Services - Operating Resource Requirement Analysis In Thousands (\$000)

	2	2018 Baseline	е	20	19 Adjustme	ents	2019	
	Forecast	Budget	Adj. to Base Budget	Maintain Services	Growth	User Fees & Revenues	Estimate	\$ Change over 2018 Budget
Revenues By Type								
Federal	0	0	0	0	0	0	0	0
Provincial	0	0	0	0	0	0	0	0
Municipal	0	0	0	0	0	0	0	0
Own Funds	0	0	0	0	0	0	0	0
Fees and Services	-15	-39	0	0	0	0	-39	0
Fines	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0
Total Revenue	-15	-39	0	0	0	0	-39	0
Percent of 2018 Revenue Budget			0.0%	0.0%	0.0%	0.0%	0.0%	
Net Requirement	6,263	6,629	0	160	0	0	6,789	160
Percent of 2018 Net Requirement Budget			0.0%	2.4%	0.0%	0.0%	2.4%	
Full Time Equivalents (FTE's)		208.41	0.00	0.00	7.00	0.00	215.41	7.00
Percent of 2018 FTE's			0.0%	0.0%	3.4%	0.0%	3.4%	

City of Ottawa Planning, Infrastructure & Economic Development Department Infrastructure Services - Operating Resource Requirement Explanatory Notes In Thousands (\$000)

	Sı	Surplus / (Deficit)			
2018 Forecast vs. Budget Variance Explanation	Expense	Revenue	Net		
Expenditure savings largely due to vacancies, partially offset by a shortfall in					
pavement degradation revenues.	390	-24	366		
Total Surplus / (Deficit)	390	-24	366		

		Increase / (I		
2019 Pressure Category / Explanation	Expense	Revenue	Net 2019 Changes	FTE Impact
Maintain Services				
All programs include an adjustment for potential 2019 cost of living, increments and				
benefit adjustments.	715	0	715	0.00
All programs include an adjustment for potential 2019 cost of living, increments and				
benefit adjustments - offset by recoveries and allocations.	-555	0	-555	
Total Maintain Services	160	0	160	0.00
Growth Facilities supporting the delivery of water and sewer services, such as treatment plants, pumping stations and reservoirs, require increased attention. The outcome of an asset management review for these facilities was undertaken and a Senior Engineer position was identified to address gaps in services. Facilities supporting the delivery of water and sewer services, such as treatment plants,	125	0	125	1.00
pumping stations and reservoirs, require increased attention. The outcome of an asset management review for these facilities was undertaken and a Senior Engineer position was identified to address gaps in services. Offset by recoveries and allocations.	-125	0	-125	0.00
Facilities supporting the delivery of water and sewer services, such as treatment plants, pumping stations and reservoirs, require increased attention. The outcome of an asset management review for these facilities was undertaken and an Infrastructure Analyst position was identified to address gaps in services.	110	0	110	1.00

City of Ottawa Planning, Infrastructure & Economic Development Department Infrastructure Services - Operating Resource Requirement Explanatory Notes In Thousands (\$000)

	Increase / (Decrease)				
2019 Pressure Category / Explanation	Expense	Revenue	Net 2019 Changes	FTE Impact	
Growth continued					
Facilities supporting the delivery of water and sewer services, such as treatment plants,					
pumping stations and reservoirs, require increased attention. The outcome of an asset					
management review for these facilities was undertaken and an Infrastructure Analyst					
position was identified to address gaps in services. Offset by recoveries and allocations.		_			
There has been a standy in success in the conital program. This has provided in an	-110	0	-110	0.00	
There has been a steady increase in the capital program. This has resulted in an increase use of temporary or consultant positions to meet capital delivery expectations.					
The Senior Project Manager positions are required to deliver capital program in the most					
cost effective manner.	250	0	250	2.00	
There has been a steady increase in the capital program. This has resulted in an	200		200	2.00	
increase use of temporary or consultant positions to meet capital delivery expectations.					
The Senior Project Manager positions are required to deliver capital program in the most					
cost effective manner. Offset by recoveries and allocations.					
	-250	0	-250	0.00	
There has been a steady increase in the capital program related to city facilities. This					
has resulted in an increase use of temporary positions to meet capital delivery					
expectations. The Construction Technician positions are required to deliver capital	040		040	0.00	
program in the most cost effective manner.	210	0	210	2.00	
There has been a steady increase in the capital program related to city facilities. This has resulted in an increase use of temporary positions to meet capital delivery					
expectations. The Construction Technician positions are required to deliver capital					
program in the most cost effective manner. Offset by recoveries and allocations.					
programm man and another control manners of the control and another control	-210	0	-210	0.00	
Infrastructure Services has implemented a new project management system (vISion) to					
support the delivery of the city's capital program. A Business Analyst position is required					
to support the sustainment of this new system.	100	0	100	1.00	
Infrastructure Services has implemented a new project management system (vISion) to					
support the delivery of the city's capital program. A Business Analyst position is required					
to support the sustainment of this new system. Offset by recoveries and allocations.	400	-	100	0.00	
Total Growth	-100 0	<u>0</u>		0.00 7.00	
I Utai Giuwtii	U		U	7.00	

City of Ottawa
Planning, Infrastructure & Economic Development Department
Infrastructure Services - Operating Resource Requirement Explanatory Notes
In Thousands (\$000)

	Increase / (Decrease)					
2019 Pressure Category / Explanation	Expense	Revenue	Net 2019 Changes	FTE Impact		
User Fees & Revenues						
See following user fee schedule for details on the specific rates.	0	0	0	0.00		
Total User Fees & Revenues	0	0	0	0.00		
Total Budget Changes	160	0	160	7.00		

City of Ottawa
Planning, Infrastructure & Economic Development Department
Resiliency and Natural Systems Policy - Operating Resource Requirement Analysis
In Thousands (\$000)

	2	018 Baseline		2019 Adjustments			2019	
	Forecast	Budget	Adj. to Base Budget	Maintain Services	Growth	User Fees & Revenues	Estimate	\$ Change over 2018 Budget
Expenditures by Program								
Resiliency and Natural Systems Policy	1,411	1,530	0	15	0	0		15
Gross Expenditure	1,411	1,530	0	15	0	0	1,545	15
Recoveries & Allocations	-13	0	0	0	0	0	0	0
Revenue	0	0	0	0	0	0	0	0
Net Requirement	1,398	1,530	0	15	0	0	1,545	15
Expenditures by Type								
Salaries, Wages & Benefits	1,303	1,211	0	15	0	0	1,226	15
Overtime	8	11	0	0	0	0	11	0
Material & Services	38	258	0	0	0	0	258	0
Transfers/Grants/Financial Charges	57	50	0	0	0	0	50	0
Fleet Costs	0	0	0	0	0	0	0	0
Program Facility Costs	0	0	0	0	0	0	0	0
Other Internal Costs	5	0	0	0	0	0	0	0
Gross Expenditures	1,411	1,530	0	15	0	0	1,545	15
Recoveries & Allocations	-13	0	0	0	0	0	0	0
Net Expenditure	1,398	1,530	0	15	0	0	1,545	15
Percent of 2018 Net Expenditure Budg	et		0.0%	1.0%	0.0%	0.0%	1.0%	
Revenues By Type								
Federal	0	0	0	0	0	0	0	0
Provincial	0	0	0	0	0	0	0	0
Municipal	0	0	0	0	0	0	0	0
Own Funds	0	0	0	0	0	0	0	0
Fees and Services	0	0	0	0	0	0	0	0
Fines	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0
Total Revenue	0	0	0	0	0	0	0	0
Percent of 2018 Revenue Budget			0.0%	0.0%	0.0%	0.0%	0.0%	
Net Requirement	1,398	1,530	0	15	0	0	1,545	15
Percent of 2018 Net Requirement Budg	get		0.0%	1.0%	0.0%	0.0%	1.0%	
Full Time Equivalents (FTE's)		9.00	0.00	0.00	0.00	0.00	9.00	0.00
Percent of 2018 FTE's			0.0%	0.0%	0.0%	0.0%	0.0%	

City of Ottawa

Planning, Infrastructure & Economic Development Department Resiliency and Natural Systems Policy - Operating Resource Requirement Explanatory Notes In Thousands (\$000)

	Surplus / (Deficit)				
2018 Forecast vs. Budget Variance Explanation	Expense	Revenue	Net		
Surplus largely due to delays in work plan initiatives.	132	0	132		
Total Surplus / (Deficit)	132	0	132		
		Increase / (Decrease)		
			Net 2019		

	Increase / (Decrease)				
2019 Pressure Category / Explanation	Expense	Revenue	Net 2019 Changes	FTE Impact	
Maintain Services					
All programs include an adjustment for potential 2019 cost of living, increments and					
benefit adjustments.	15	0	15	0.00	
Total Maintain Services	15	0	15	0.00	
Total Budget Changes	15	0	15	0.00	

City of Ottawa Public Works and Environmental Services Department Solid Waste Services - Operating Resource Requirement Analysis In Thousands (\$000)

	20	018 Baseline		20	19 Adjustm	2019		
	Forecast	Budget	Adj. to Base Budget	Maintain Services	Growth	User Fees & Revenues	Estimate	\$ Change over 2018 Budget
Expenditures by Program								
Director's Office	752	481	0	9	0	0	490	9
Diversion/Recycling	42,774	42,508	0	1,076	425	0	44,009	1,501
Graffiti Management	968	803	0	16	0	0	819	16
Soil Management	436	650	0	0	0	0	650	0
Landfill Operations/Disposal	9,801	8,468	0	-22	0	0	8,446	-22
Garbage Collection	16,125	15,804	0	631	300	0	16,735	931
Other	140	263	0	54	0	0	317	54
Solid Waste Non Departmental	5,747	5,747	0	0	0	0	5,747	0
Gross Expenditure	76,743	74,724	0	1,764	725	0	77,213	2,489
Recoveries & Allocations	-3,461	-2,758	0	0	0	0	-2,758	0
Revenue	-50,952	-51,070	0	305	-425	-730	-51,920	-850
Net Requirement	22,330	20,896	0	2,069	300	-730	22,535	1,639
Expenditures by Type								
Salaries, Wages & Benefits	12,506	12,784	0	407	140	0	13,331	547
Overtime	1,286	634	0	13	0	0	647	13
Material & Services	46,808	46,750	0	940	585	0	48,275	1,525
Transfers/Grants/Financial Charges	5,033	5,327	0	0	0	0	5,327	0
Fleet Costs	9,364	7,719	0	404	0	0	8,123	404
Program Facility Costs	0	0	0	0	0	0	0	0
Other Internal Costs	1,746	1,510	0	0	0	0	1,510	0
Gross Expenditures	76,743	74,724	0	1,764	725	0	77,213	2,489
Recoveries & Allocations	-3,461	-2,758	0	0	0	0	-2,758	0
Net Expenditure	73,282	71,966	0	1,764	725	0	74,455	2,489
Percent of 2018 Net Expenditure Budg	get		0.0%	2.5%	1.0%	0.0%	3.5%	

City of Ottawa
Public Works and Environmental Services Department
Solid Waste Services - Operating Resource Requirement Analysis
In Thousands (\$000)

	2	018 Baseline		20	19 Adjustmo	ents	2019	
	Forecast	Budget	Adj. to Base Budget	Maintain Services	Growth	User Fees & Revenues	Estimate	\$ Change over 2018 Budget
Revenues By Type								
Federal	0	0	0	0	0	0	0	0
Provincial	-6,497	-6,129	0	305	0	0	-5,824	305
Municipal	0	0	0	0	0	0	0	0
Own Funds	0	0	0	0	0	0	0	0
Fees and Services	-44,455	-44,941	0	0	-425	-730	-46,096	-1,155
Fines	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0
Total Revenue	-50,952	-51,070	0	305	-425	-730	-51,920	-850
Percent of 2018 Revenue Budget			0.0%	-0.6%	0.8%	1.4%	1.7%	
Net Requirement	22,330	20,896	0	2,069	300	-730	22,535	1,639
Percent of 2018 Net Requirement Budg	jet		0.0%	9.9%	1.4%	-3.5%	7.8%	
Full Time Equivalents (FTE's)		68.40	0.00	0.00	0.00	0.00	68.40	0.00
Percent of 2018 FTE's			0.0%	0.0%	0.0%	0.0%	0.0%	

City of Ottawa Public Works and Environmental Services Department Solid Waste Services - Operating Resource Requirement Explanatory Notes In Thousands (\$000)

	Surplus / (Deficit)		
2018 Forecast vs. Budget Variance Explanation	Expense	Revenue	Net
Deficit mainly due to increased Fleet costs for the In House Operations.	-1,316	-118	-1,434
Total Surplus / (Deficit)	-1,316	-118	-1,434

		Increase / (
2019 Pressure Category / Explanation	Expense	Revenue	Net 2019 Changes	FTE Impact
Maintain Services				
All programs include an adjustment for potential 2019 cost of living, increments and				
benefit adjustments.	420	0	420	0.00
Increase in Orgaworld contract due to renegotiation for the introduction of plastic bags in				
green bins.	625	0	625	0.00
Inflationary increase to curbside and multi res garbage, recycling and green bin collection				
contracts.	265	0	265	0.00
Inflationary increase to recycling and organics processing contracts.	50	0	50	0.00
Increase in Fleet costs related to inflation on compensation contracts, parts, fuel,				
contribution to capital reserve and maintenance.	404	0	404	0.00
Decrease in Blue/Black Box Program funding from Resource Productivity & Recovery				
Authority due to reduction in total funding made available to municipalities.				
		305		
Total Maintain Services	1,764	305	2,069	0.00

City of Ottawa
Public Works and Environmental Services Department
Solid Waste Services - Operating Resource Requirement Explanatory Notes
In Thousands (\$000)

	Increase / (Decrease)				
2019 Pressure Category / Explanation	Expense	Revenue	Net 2019 Changes	FTE Impact	
Growth					
Annualization of half year costs approved in 2018 for growth in the In House Operations					
for Zone 5.	280	0	280	0.00	
Increase to curbside and multi res garbage, recycling and green bin collection contracts					
due to increase in number of households.	445	0	445	0.00	
Increase in per household revenues due to the increase in number of households.	0	-425	-425	0.00	
Total Growth	725	-425	300	0.00	
User Fees & Revenues					
See following user fee schedule for details on the specific rates.	0	-730	-730	0.00	
Total User Fees & Revenues	0	-730	-730	0.00	
Total Budget Changes	2,489	-850	1,639	0.00	

City of Ottawa
Public Works & Environmental Services Department
Forestry Services - Operating Resource Requirement Analysis
In Thousands (\$000)

In Thousands (\$000)								
	20	018 Baseline		2019 Adjustments			2019	
	Forecast	Budget	Adj. to Base Budget	Maintain Services	Growth	User Fees & Revenues	Estimate	\$ Change over 2018 Budget
Expenditures by Program								
Forestry Services	18,477	18,290	0	344	0	0	,	344
Gross Expenditure	18,477	18,290	0	344	0	0	18,634	344
Recoveries & Allocations	-53	0	0	0	0	0	0	0
Revenue	-291	-45	0	0	0	0		0
Net Requirement	18,133	18,245	0	344	0	0	18,589	344
Expenditures by Type								
Salaries, Wages & Benefits	7,583	7,778	0	187	0	0	7,965	187
Overtime	363	168	0	3	0	0	171	3
Material & Services	9,065	9,196	0	0	0	0	9,196	0
Transfers/Grants/Financial Charges	5	0	0	0	0	0	0	0
Fleet Costs	1,282	1,127	0	154	0	0	1,281	154
Program Facility Costs	0	0	0	0	0	0	0	0
Other Internal Costs	179	21	0	0	0	0		0
Gross Expenditures	18,477	18,290	0	344	0	0	18,634	344
Recoveries & Allocations	-53	0	0	0	0	0	0	0
Net Expenditure	18,424	18,290	0	344	0	0	18,634	344
Percent of 2018 Net Expenditure Budg	et		0.0%	1.9%	0.0%	0.0%	1.9%	
Revenues By Type								
Federal	0	0	0	0	0	0	0	0
Provincial	-148	0	0	0	0	0	0	0
Municipal	0	0	0	0	0	0	0	0
Own Funds	0	0	0	0	0	0	0	0
Fees and Services	-143	-45	0	0	0	0	-45	0
Fines	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0
Total Revenue	-291	-45	0	0	0	0	-45	0
Percent of 2018 Revenue Budget			0.0%	0.0%	0.0%	0.0%	0.0%	
Net Requirement	18,133	18,245	0	344	0	0	18,589	344
Percent of 2018 Net Requirement Budg	get		0.0%	1.9%	0.0%	0.0%	1.9%	
Full Time Equivalents (FTE's)		81.32	0.00	0.00	0.00	0.00	81.32	0.00
Percent of 2018 FTE's			0.0%	0.0%	0.0%	0.0%	0.0%	

City of Ottawa Public Works & Environmental Services Department Forestry Services - Operating Resource Requirement Explanatory Notes In Thousands (\$000)

	Surplus / (Deficit)		
2018 Forecast vs. Budget Variance Explanation	Expense	Revenue	Net
Expenditure deficit mainly due to increased Fleet costs, and surplus revenue due to more			
cost recovery tree replacements than planned.	-134	246	112
Total Surplus / (Deficit)	-134	246	112

	Increase / (Decrease)					
2019 Pressure Category / Explanation	Expense	Revenue	Net 2019 Changes	FTE Impact		
Maintain Services						
All programs include an adjustment for potential 2019 cost of living, increments and						
benefit adjustments.	190	0	190	0.00		
Increase in Fleet costs related to inflation on compensation contracts, parts, fuel,						
contribution to capital reserve and maintenance.	154	0		0.00		
Total Maintain Services	344	0	344	0.00		
User Fees & Revenues						
See following user fee schedule for details on the specific rates.	0	0	0	0.00		
Total User Fees & Revenues	0	0	0	0.00		
Total Budget Changes	344	0	344	0.00		

Capital Budget

City of Ottawa 2019 Draft Capital Budget Standing Committee on Environmental Protection, Water and Waste Management-Tax In Thousands (\$000)

Service Area: Environ	ment											
			_				Debt					
Category	2019 Capital Budget	Revenues	Tax Supported/ Dedicated Reserves	Rate Supported Reserves	Develop. Charges	Gas Tax	Tax/ Dedicated	Rate	Develop. Charges	Gas Tax	Total Debt	
Renewal of City Assets	150	0	150	0	0	0	0	0	0	0	0	
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 Enhancement	3,000	0	3,000	0	0	0	0	0	0	0	0	
Total	3,150	0	3,150	0	0	0	0	0	0	0	0	

City of Ottawa 2019 Draft Capital Budget Service Area: Environment

In Thousands (\$000)

	Project Inforr	nation			Finan	cial Details		
908880	Energy Evolution		Class	of Estimate:	Not Applicabl	е		
Dept:	Planning, Infrastructure & Economic Development Department	Category: Renewal of City Assets	Category: Renewal of City Assets Ward: CW Year of Completion: 2019					
), we will complete the study portion of End	•		2019 Request	150	Projected Yeare	nd Unspent Bal.	139
	s to determine the energy transition action	, ,	-	Revenues	0		Debt	
renewa	on. The most critical goals for this strategy ble energy and meeting our council target ons by 2050. In addition to identifying the a	of an 80% reduction in greenhouse g	as	Tax Supported/ Dedicated	150		oported/ ed Debt	0
prioritiz	e prospective actions in terms of cost effe	ctiveness, scope for emissions reduct		Rate Supported	0	Rate Su	pported Debt	0
	nsider the impacts of propective actions or			Develop. Charges	0	Develor Debt	o. Charges	0
study w	nally, the Energy Evolution initiative will advork to date. This includes the 33 actions in	dentified in the first phase of the study	and	Gas Tax	0	Gas Ta	x Debt	0
	ons currently being identified in the study's	•	:	Forecast	2019	2020	2021	2022
objectiv	are good tangible contributers to the mee /es, they also demonstrate immediate action	on. Additionally, as foreseen as part o		Authority	150	0	0	0
Energy	Evolution strategy, they also have a range	e of secondary benefits related to ecor	nomic	Spending Plan	289	0	0	0
develo	oment, resiliency and social equity and inc	lusion.		FTE's	0	0	0	0
				Operating Impact	0	0	0	0

City of Ottawa 2019 Draft Capital Budget Service Area: Environment

In Thousands (\$000)

	Project Inform	nation			Finan	cial Details			
909452	Energy Management and Investment	Strategy 2019	Class	of Estimate:	Not Applicabl	е			
Dept:	Recreation, Cultural and Facility Operations Department	Category: Service Enhancement	Ward:	CW	Year o	Year of Completion: 2022			
	ergy Management Investment strategy wil		print,	2019 Request	3,000	Projected Yeare	nd Unspent Bal.	0	
	the City's compliance under the mandate	•		Revenues	0		Debt		
manage	e the City's leadership role in respect to en ement. The strategy is intended to manage rgy through the implementation of various	e the City's increasing growth in dema		Tax Supported/ Dedicated	3,000		oported/ ed Debt	0	
facilities			Rate Supported	0	Rate Supported Debt		0		
			Develop. Charges	s 0 Develop. C		o. Charges	0		
				Gas Tax	0	Gas Ta	x Debt	0	
				Forecast	2019	2020	2021	2022	
				Authority	3,000	3,000	3,000	3,000	
				Spending Plan	3,000	3,000	3,000	3,000	
				FTE's	4	0	0	0	
				Operating Impact	0	0	0	0	

City of Ottawa 2019 Draft Capital Budget Standing Committee on Environmental Protection, Water and Waste Management-Tax In Thousands (\$000)

Service Area: Solid Wa	aste												
								Debt					
Category	2019 Capital Budget	Revenues	Tax Supported/ Dedicated Reserves	Rate Supported Reserves	Develop. Charges	Gas Tax	Tax/ Dedicated	Rate	Develop. Charges	Gas Tax	Total Debt		
Renewal of City Assets	0	0	0	0	0	0	0	0	0	0	0		
Growth	450	0	450	0	0	0	0	0	0	0	0		
Regulatory	13,690	2,000	11,690	0	0	0	0	0	0	0	0		
Service Enhancement	900	0	900	0	0	0	0	0	0	0	0		
Total	15,040	2,000	13,040	0	0	0	0	0	0	0	0		

In Thousands (\$000)

	Program II	nformation		Financial Details	
Solid W	/aste Landfill Management		Class	of Estimate:	Not Applicable
Dept:	Public Works & Environmental Services Department	Category: Regulatory	Ward:	Multiple	Year of Completion: Various

Solid Waste Landfill requires annual maintenance, repair and upgrade to meet regulatory requirements as specified in the Provincial Certificate of Approval. This program consists of landfill capping of various stages, gas collection systems, groundwater containment solutions, cell expansion and other landfill management projects to keep the landfill operating efficiently, effectively and in compliance.

2019 Request	13,140	Projected Yearer	nd Unspent Bal.	0
Revenues	2,000		Debt	
Tax Supported/ Dedicated	11,140	Tax Supporte Dedicated De		0
Rate Supported	0	Rate Supporte	0	
Develop. Charges	0	Develop. Cha	0	
Gas Tax	0	Gas Tax Debt	t	0
Forecast	2019	2020	2021	2022
Authority	13,140	3,784	16,938	750
Spending Plan	13,090	4,119	16,938	
FTE's	0	0	0	0
Operating Impact	0	0	0	0

In Thousands (\$000)

Project(s) within a Program Information

\$000's

Springhill Landfill 907043

Class of Estimate: A) Pre-Tender

2.000

Category: Regulatory

Ward: CW

Year of Completion: 2021

Springhill Landfill is a City owned Landfill that has been managed for the last 20 years by R.W. Tomlinson. The MECP (Ministry of the Environment, Conservation and Parks) has identified issues at the Springhill Landfill. City Consultants will be providing advisory services to address all MECP concerns in conjunction with PIED/IS who will provide project management and oversight. These services include landfill remediation and detailed design preparation. The objectives are to contain and correct any land contamination, impacts on the groundwater and wetland, landfill gas and leachate impacts on the environment.

The costs are to be invoiced to and fully recovered from R. W. Tomlinson (Springhill Manager)

907238 Landfill Disposal Stage 2 Capping

Class of Estimate: Not Applicable

7,579

Category: Regulatory

Ward: CW

Year of Completion: 2020

"Vertical expansion of the Trail Waste Facility was approved in 2006 as part of an Environmental Assessment (EA) Optimization/Expansion Project. The land filling operation commenced with the vertical expansion of Stage 1 in 2007. Stage 1 cap was completed in 2015/16 and now Stage 2 is being progressively capped.

As dictated by the EA, the final cover for Stage 2 is a low permeability geomembrane described conceptually in "Appendix M – Design and Operations Report, Trail Waste Facility Landfill, Optimization/Expansion Project, EA/EPA Document". Stage 2 is being capped over three years. The 1st phase in being completed in 2018, the next phase will be completed in 2019 and the final phase will be completed in 2020.

Trail Rd Gas Collection System Expansion 907353

Class of Estimate: A) Pre-Tender

1.500

Category: Regulatory

Ward: 21

Year of Completion: 2019

"In accordance with the requirements of the Environmental Protection Act, the City of Ottawa is required to prevent the migration of landfill gas to the environment. To this end, the City installed a landfill gas collection and flaring system at the Trail Waste Facility Stages 1, 2 and the Nepean landfill in the early 1990's. The landfill gas collection system was expanded to Stage 3 and 4 and around the perimeter of the site over the past several years to compliment landfilling activities and mitigate off-site migration. The City continues to operate under a voluntary compliance program with the MECP as a result of exceedence of landfill gas trigger concentrations along the perimeter of the site.

Functions associated with the activity include replacement of the temporary perimeter flare, repairs and expansion of the existing gas collection system and installation of a permanent gas collection system on completed portions of Stage 2 and 3 of the Trail Waste Facility.

In Thousands (\$000)

Project(s) within a Program I	nformation	\$000's
Trail Road Landfill - Expansion & Development 2015	Class of Estimate: C) Planning	750

907815 Trail Road Landfill - Expansion & Development 2015 Category: Regulatory Ward: 21 Year of Completion: 2024

"The Trail Road Landfill operates on a continuous basis for disposal of solid waste material. As such annual reinvestment is required to identify and address operational and safety improvements of the site. Required modifications include Signage and Fencing replacement, material stock pile volume measurements and associated design and operations reports.

907816 Groundwater Management Class of Estimate: D) Conceptual 300

Category: Regulatory Ward: CW Year of Completion: 2019

The City of Ottawa owns and operates the Nepean Ground Water Treatment (NGWT) system located at 3704 Moodie Drive. In 2006 the facility was installed to mitigate contaminated ground water migration to adjacent lands west of the closed Nepean Landfill. The facility consist of 6 extraction wells coupled to a mechanical air stripping treatment system designed to remove volatile organic compounds and discharge treated effluent to an adjacent surface water pond located on the closed Nepean Landfill site. A 2016 rehabilitation project(see NGWT Purge Well Rehabilitation Project ESD-SWS-0010) identified widespread infrastructure and electrical failure. As a result the City with Dillon completed a Remedial Options Analysis and In-Situ Chemical Treatment pilot, met with the MECP and is moving forward with an alternative strategy to manage groundwater compliance. The Class D capital cost estimate for the Chemical treatment is \$144,000 and Phytoremediation is \$85,000 for a total of \$229,000 in 2019.

907799 Landfill Disposal Stage 5 Development Class of Estimate: C) Planning 1,011

Category: Regulatory Ward: 21 Year of Completion: 2024

Stage 5 of the Trail Waste Facility is a new cell approved by the MECP in the 2005 Trail Waste Facility Optimization EA. A leachate liner must be installed over one half of Stage 5 (5a) by 2025 to support ongoing waste management requirements at Trail. To develop this stage a leachate liner must be designed, the site excavated and liner installed. It is expected the engineering aspects of this work will commence in 2019 to approve any variance from the proposed EA design.

In Thou	usands (\$000)							
	Program Inf	formation			Fina	ncial Details		
Solid V	Vaste Facilities		Class	of Estimate:	Not Applical	ble		
Dept:	Public Works & Environmental Services Department	Category: Regulatory	ulatory Ward: Multiple Year of Completion: Vario					
		-		2019 Request	550	Projected Yearer	nd Unspent Bal.	0
	Waste Landfill buildings and disposal pro enance, repair and upgrade to meet regu	- · · · · · · · · · · · · · · · · · · ·		Revenues	0		Debt	
Provii	ncial Certificate of Approval.			Tax Supported/ Dedicated	550	Tax Supporte Dedicated De		0
				Rate Supported	0	Rate Supporte	ed Debt	0
				Develop. Charges	0	Develop. Cha	rges Debt	0
				Gas Tax	0	Gas Tax Debt	t	0
				Forecast	2019	2020	2021	2022
				Authority	550	0	0	0
				Spending Plan	550	0	0	0
				FTE's	0	0	0	0
				Operating Impact	0	0	0	0

Impact

City of Ottawa 2019 Draft Capital Budget

In Thousands (\$000)

Project(s) within a Program Information							
909430	Nepean Landfill Cap Repai	ir			Class of Estimate:	Not Applicable	550
Category:	Regulatory	Ward:	21	Year of Completion:	2023		
			-	ne cover in 1993. Some areas un back into compliance with the EC	•	tled and created stormwater	drainage issues.

Program Inf	Financial Details							
aste Fleet		Class	of Estimate:	Not Applical	ble			
Public Works & Environmental Services Department	Category: Growth	Ward:	Multiple	Year o	Year of Completion: Various			
			2019 Request	450	Projected Yearer	nd Unspent Bal.	0	
			Revenues	0		Debt		
e kilometres.			Tax Supported/ Dedicated	450			0	
			Rate Supported	0	Rate Supporte	ed Debt	0	
			Develop. Charges	0	Develop. Cha	rges Debt	0	
			Gas Tax	0	Gas Tax Debi	t	0	
			Forecast	2019	2020	2021	2022	
			Authority	450	0	0	0	
			Spending Plan	450	0	0	0	
			FTE's	0	0	0	0	
	Public Works & Environmental Services Department Vaste Fleet requires growth to meet the City grows, Solid Waste realizes expand	Public Works & Environmental Services Department Category: Growth /aste Fleet requires growth to meet the expanding needs of the City's service City grows, Solid Waste realizes expanding house counts, increased tonnage	Public Works & Environmental Services Department Category: Growth Ward: Vaste Fleet requires growth to meet the expanding needs of the City's service areas. City grows, Solid Waste realizes expanding house counts, increased tonnages and e kilometres.	Public Works & Environmental Services Department Category: Growth Ward: Multiple Category: Growth Ward: Multiple Category: Growth Category: Growth Category: Growth Ward: Multiple Category: Growth Category: Growth Category: Growth Category: Growth Ward: Multiple Category: Growth Category	Public Works & Environmental Services Department Category: Growth Category: Multiple Year of Category Revenues O Tax Supported/ Dedicated At50 Charges Gas Tax O Forecast 2019 Authority 450 Spending Plan 450	Public Works & Environmental Services Department Category: Growth Ward: Multiple Year of Completion: Yaste Fleet requires growth to meet the expanding needs of the City's service areas. City grows, Solid Waste realizes expanding house counts, increased tonnages and e kilometres. Public Works & Environmental Category: Growth Ward: Multiple Year of Completion: Revenues 0 Tax Supported/ Dedicated 450 Tax Supported Dedicated Dedicated Dedicated De Rate Supported Develop. Charges Gas Tax 0 Gas Tax Debi Forecast 2019 2020 Authority 450 0 Spending Plan 450 0	Public Works & Environmental Services Department Category: Growth Ward: Multiple Year of Completion: Various Yaste Fleet requires growth to meet the expanding needs of the City's service areas. City grows, Solid Waste realizes expanding house counts, increased tonnages and e kilometres. Public Works & Environmental Category: Growth Ward: Multiple Year of Completion: Various Projected Yearend Unspent Bal. Revenues 0 Debt Tax Supported/ Dedicated 450 Tax Supported/ Dedicated Debt Rate Supported 0 Rate Supported Debt Develop. Charges Gas Tax 0 Gas Tax Debt Forecast 2019 2020 2021 Authority 450 0 0 Spending Plan 450 0 0	

Operating

Impact

84

0

0

0

In Thousands (\$000)

			Project(s) within a Program Information			\$000's
908686	Solid Waste Fleet Growth -	- Landfil	I 2019		Class of Estimate: N	ot Applicable	450
Category:	Growth	Ward:	21	Year of Completion:	2022		

Solid Waste is requesting 2019 fleet capital to purchase equipment at Trail Road. This equipment is required to support the Trail Road Landfill annual and long term need for processing cover materials and contaminated soils. The 2019 request will be part of the Fleet report to council and will include the following vehicles for Solid Waste:

Hooklift truck - \$285K

Pickup Truck, 1 ton, (extreme duty truck) - \$67K

Pickup Truck, 1 ton - \$58K

Pickup Truck, ½ ton - \$40K

Backhoe - \$62K

	Program Inf	formation			Fina	ncial Details		
olid W	aste Studies-Strategic		Class	of Estimate:	Not Applica	ble		
ept:	Environmental Services	Category: Service Enhancement	Ward:	Multiple	Year o	f Completion:	Various	
				2019 Request	900	Projected Yearen	d Unspent Bal.	(
	ng and managing the development, impl y's long-term Solid Waste plans and rela		ent of	Revenues	0		Debt	
				Tax Supported/ Dedicated	900	Tax Supported Dedicated De		0
				Rate Supported	0	Rate Supporte	ed Debt	0
				Develop. Charges	0	Develop. Cha	rges Debt	0
				Gas Tax	0	Gas Tax Debt		0
				Forecast	2019	2020	2021	2022
				Authority	900	0	0	0
				Spending Plan	500	400	0	0
				FTE's	0	0	0	0
				Operating Impact	0	0	0	0

City of Ottawa 2019 Draft Capital Budget

In Thousands (\$000)

	Project(s) within a Program Information				
909431 Long Term Planning			Class of Estimate: Not Applicable	900	
Category: Service Enhancement	Ward: 21	Year of Completion:	2023		

Planning and managing the development, implementation, evaluation and enhancement of the City's long-term Solid Waste plans and related policies, programs, services and projects that will guide the management of recyclables and garbage over the next thirty years. Beginning in 2019, planning and reviews will begin on the Solid Waste Master Plan, the waste collection contracts, recycling pilot projects and other waste management and diversion priorities.

City of Ottawa 2019 Draft Capital Budget Standing Committee on Environmental Protection, Water and Waste Management - Tax Capital Forecast Summary In Thousands (000's)

Project Description	2019	2020	2021	2022	Total
Environment					
Renewal of City Assets					
908880 Energy Evolution	150	-	-	-	150
Renewal of City Assets Total	150	-	-	-	150
Service Enhancement					
909452 Energy Mgmt & Investment Strategy 2019	3,000	3,000	3,000	3,000	12,000
Service Enhancement Total	3,000	3,000	3,000	3,000	12,000
Environment Total	3,150	3,000	3,000	3,000	12,150
Solid Waste					
Growth					
908686 Solid Waste Fleet Growth - Landfill 2019	450	-	-	-	450
Growth Total	450	-	-	-	450
Regulatory					_
907238 Landfill Disposal Stage 2 Capping	7,579	-	-	-	7,579
907353 Trail Rd Gas Collection System Expansion	1,500	500	500	500	3,000
907799 Landfill Disposal Stage 5 Development	1,011	3,034	16,188	-	20,233
907815 Trail Road Landfill - Exp & Development	750	250	250	250	1,500
907816 Groundwater Management	300	-	-	-	300
909399 Trail Road Landfill Cap Repair	-	1,000	-	-	1,000
909430 Nepean Landfill Cap Repair	550	-	-	-	550
907043 Springhill Landfill	2,000	-	-	-	2,000
Regulatory Total	13,690	4,784	16,938	750	36,162
Renewal of City Assets					
907611 Trail Road Stormwater Ponds and Ditches	-	250	-	-	250
907614 Barnsdale Base Preparation	-	600	600	600	1,800
Renewal of City Assets Total	-	850	600	600	2,050
Service Enhancement					
906167 Leachate Treatment Facility	-	12,450	-	-	12,450
909431 Long Term Planning	900	-	-	-	900
Service Enhancement Total	900	12,450	-	-	13,350
Solid Waste Total	15,040	18,084	17,538	1,350	52,012
Grand Total	18,190	21,084	20,538	4,350	64,162

City of Ottawa Standing Committee on Environmental Protection, Water and Waste Management - Tax Capital Works-In-Progress

Project Description	Total Authority	Total Expenditures as of September 30th, 2018	Unspent Cash Balance as of September 30th, 2018	Total Contractual Obligations	Unspent/ Uncommitted Balance as of September 30th, 2018
Environment					
Renewal of City Assets					
908880 Energy Evolution	170,450	31,571	138,879	140,363	(1,484)
Renewal of City Assets Total	170,450	31,571	138,879	140,363	(1,484)
Service Enhancement					
905937 2016 Rural Area Acquisitions	1,160,000	543,275	616,725	11,153	605,572
906381 AQCCMP Implementation	344,500	46,987	297,513	-	297,513
907516 S37 Nepean/Metcalfe Streetscaping Proj.	754,300	672,284	82,016	81,993	22
907985 Energy Management & Invest. Strategy SI	4,000,000	2,760,959	1,239,041	1,314,646	(75,605)
908017 Green Fleet - 2016	1,222,000	403,039	818,961	88,242	730,719
908881 Canada 150 Maple Grove	30,600	-	30,600	16,684	13,916
908894 2018 Natural Area Acquisitions (Rural)	340,000	107	339,893	-	339,893
909109 2018 Natural Area Acquisitions (Urban)	240,000	-	240,000	-	240,000
909139 AQCCMP National Disaster Mitagation Prog	30,500	23,272	7,228	2,646	4,583
909151 Community Energy Intitiatives	500,000	-	500,000	-	500,000
909255 Renewable Energy Transition Projects	633,000	-	633,000	-	633,000
Service Enhancement Total	9,254,900	4,449,922	4,804,978	1,515,364	3,289,613
Regulatory					
908869 Green Fleet	500,000	-	500,000	-	500,000
Regulatory Total	500,000	-	500,000	-	500,000
Environment Total	9,925,350	4,481,493	5,443,857	1,655,727	3,788,130
Solid Waste					
Renewal of City Assets					
906535 Bin Collection Conversion	950,000	811,115	138,885	26,763	112,122
907611 Trail Road Stormwater Ponds and Ditches	250,000	-	250,000	-	250,000
907613 Small Load Expansion	300,000	-	300,000	-	300,000
907614 Barnsdale Base Preparation	700,000	14,480	685,520	-	685,520
908013 Trail Road Scalehouse Rehabilitation	1,999,856	303,899	1,695,957	102,881	1,593,076

City of Ottawa Standing Committee on Environmental Protection, Water and Waste Management - Tax Capital Works-In-Progress

Project Description	Total Authority	Total Expenditures as of September 30th, 2018	Unspent Cash Balance as of September 30th, 2018	Total Contractual Obligations	Unspent/ Uncommitted Balance as of September 30th, 2018
Renewal of City Assets Total	4,199,856	1,129,494	3,070,362	129,644	2,940,717
Growth					
908685 Solid Waste Fleet Growth - Landfill	1,350,000	1,180,955	169,045		169,045
Growth Total	1,350,000	1,180,955	169,045	-	169,045
Service Enhancement					
907354 Solid Waste Business Technology	1,500,000	65,096	1,434,904		1,434,904
908011 Ottawa Waste Plan Implementation	800,000	117,522	682,478	58,603	623,875
908012 Processing & Disposal Technology Review	600,000	-	600,000	-	600,000
Service Enhancement Total	2,900,000	182,618	2,717,382	58,603	2,658,779
Regulatory					
906167 Leachate Treatment Facility	12,500,000	5,583,849	6,916,151	1,406,112	5,510,039
907004 Landfill Disposal Stage 1 Capping	14,565,000	8,333,656	6,231,344	364,796	5,866,547
907238 Landfill Disposal Stage 2 Capping	8,579,000	881,715	7,697,285	4,102,725	3,594,560
907353 Trail Rd Gas Collection System Expansion	3,500,000	2,972,658	527,342	984,544	(457,202)
907798 Nepean Landfill Gas Collection Rehab	120,000	-	120,000	-	120,000
907815 Trail Road Landfill - Exp & Development	750,000	345,279	404,721	160,757	243,964
907816 Groundwater Management	1,050,000	696,674	353,326	171,827	181,499
Regulatory Total	41,064,000	18,813,832	22,250,168	7,190,761	15,059,408
Solid Waste Total	49,513,856	21,306,899	28,206,957	7,379,008	20,827,949
Grand Total	59,439,206	25,788,392	33,650,814	9,034,735	24,616,079