



City Budget
2013

Solid Waste Management
Services
Capital Budget Analyst Notes

The City of Toronto's budget is presented by program and service, in Analyst Note format. The City's Capital Budget funds major infrastructure.

2013 - 2022 Capital Program

2013 CAPITAL BUDGET ANALYST BRIEFING NOTES

BUDGET COMMITTEE NOVEMBER 7, 2012

TABLE OF CONTENTS

PART I: RECOMMENDATIONS	2
PART II: 2013 – 2022 CAPITAL PLAN	
10-Year Capital Plan Summary	4
10-Year Capital Plan Overview	6
10-Year Capital Plan Operating Impact Summary	15
PART III: 2013 RECOMMENDED CAPITAL BUDGET	
2013 Capital Budget by Project Category and Funding Source	18
2013 Recommended Cash Flow & Future Year Commitments	20
2013 Recommended Capital Project Highlights	21
PART IV: ISSUES FOR DISCUSSION	
2013 and Future Year Issues	22
Issues Referred to the 2013 Capital Budget Process	N/A
APPENDICES	
Appendix 1: 2012 Performance	25
Appendix 2: 10-Year Recommended Capital Plan Project Summary	27
Appendix 3: 2013 Recommended Capital Budget; 2014 to 2022 Capital Plan	28
Appendix 4: 2013 Recommended Cash Flow & Future Year Commitments	29
Appendix 5: 2013 Recommended Capital Projects with Financing Details	30
Appendix 6: 2013 Reserve / Reserve Fund Review	31

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PART I: RECOMMENDATIONS

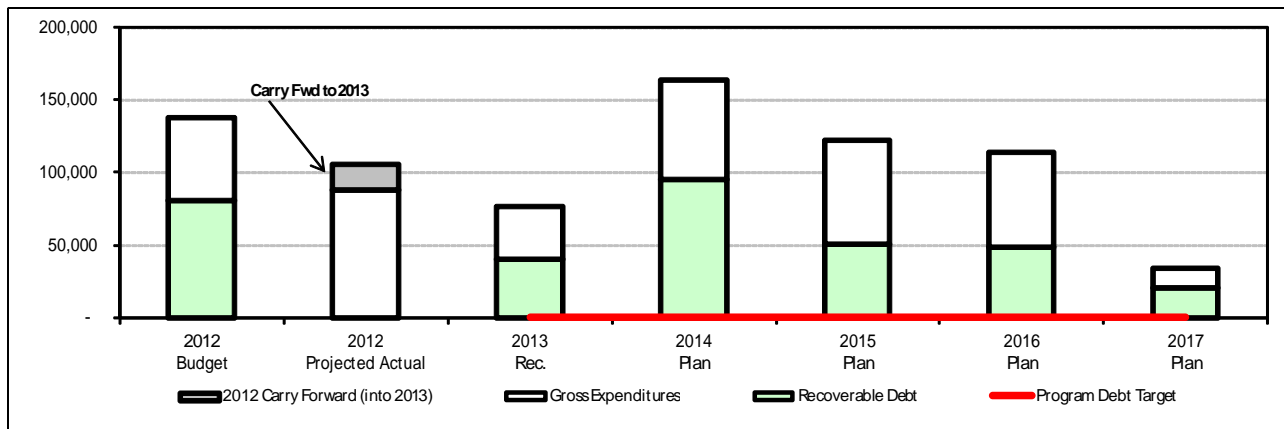
The City Manager and Acting Chief Financial Officer recommend that:

1. Council approve the 2013 Recommended Capital Budget for Solid Waste Management Services with a total project cost of \$203.615 million, and 2013 cash flow of \$93.930 million and future year commitments of \$260.505 million comprised of the following:
 - a) New Cash Flow Funding for:
 - i) 19 new / change in scope sub-projects with a 2013 total project cost of \$203.615 million that requires cash flow of \$37.195 million in 2013 and a future year cash flow commitment of \$36.378 million in 2014; \$27.520 million in 2015; \$29.017 million in 2016; \$15.162 million in 2017; \$13.148 million in 2018; \$12.549 million in 2019; \$11.007 million in 2020; \$7.796 million in 2021; \$13.843 million in 2022;
 - ii) 31 previously approved sub-projects with a 2013 cash flow of \$39.939 million; and a future year cash flow commitment of \$36.247 million in 2014; \$12.658 million in 2015; \$3.982 million in 2016; \$2.258 million in 2017; \$4.939 million in 2018; \$5.379 million in 2019; \$5.584 million in 2020; \$5.584 million in 2021;
 - iii) 15 sub-projects from previously approved projects with carry forward funding from 2011 and prior years requiring 2013 cash flow of \$16.775 million and a future year cash flow commitment of \$12.308 million in 2014 and \$4.255 million in 2015 which requires Council to reaffirm its commitment; and
 - b) 2012 approved cash flow for 20 previously approved sub-projects with carry forward funding from 2012 into 2013 and future years totaling \$17.688 million.
2. Council approve new debt service costs of \$0.227 million in 2013 and incremental debt costs of \$1.782 million in 2014, \$2.879 million in 2015, \$1.909 million in 2016, \$2.717 million in 2017, \$1.158 million in 2018, \$0.903 million in 2019, \$1.271 million in 2020, \$1.235 million in 2021 and \$1.043 million in 2022 resulting from the approval of the 2013 Recommended Capital Budget, to be included in the 2013 and future year operating budgets and are to be recovered from volume based user fees;
3. Council approve the 2014-2022 Recommended Capital Plan for Solid Waste Management Services totaling \$332.846 million in project estimates, comprised of \$78.855 million in 2014; \$78.129 million in 2015; \$81.699 million in 2016; \$16.804 million in 2017; \$15.544 million in 2018; \$14.778 million in 2019; \$17.123 million in 2020; \$15.764 million in 2021; and \$14.150 million in 2022; and,
4. Council consider operating cost (savings) of \$(0.603) million net in 2013, \$(0.158) million net in 2014, \$(3.004) million net in 2015, \$(6.549) million net in 2016, \$(6.738) million net in 2017, \$(6.946) million net in 2018, \$(7.224) million net in 2019, \$(7.360) million net in 2020, \$(7.557) million net in 2021; and \$(2.769) million net in 2022 emanating from the approval of the 2013 Recommended Capital Budget for inclusion in the 2013 and future year operating budgets.

5. All sub-projects with third party financing be approved conditionally, subject to the receipt of such funding in 2013 and/or future years and if such funding is not forthcoming, their priority and funding be reassessed by City Council relative to other City-financed priorities and needs.
6. This report be considered concurrently with the 2013 Recommended Solid Waste Rates report (November 7, 2012), from the Deputy City Manager and Acting Chief Financial Officer and General Manager for Solid Waste Management Services.

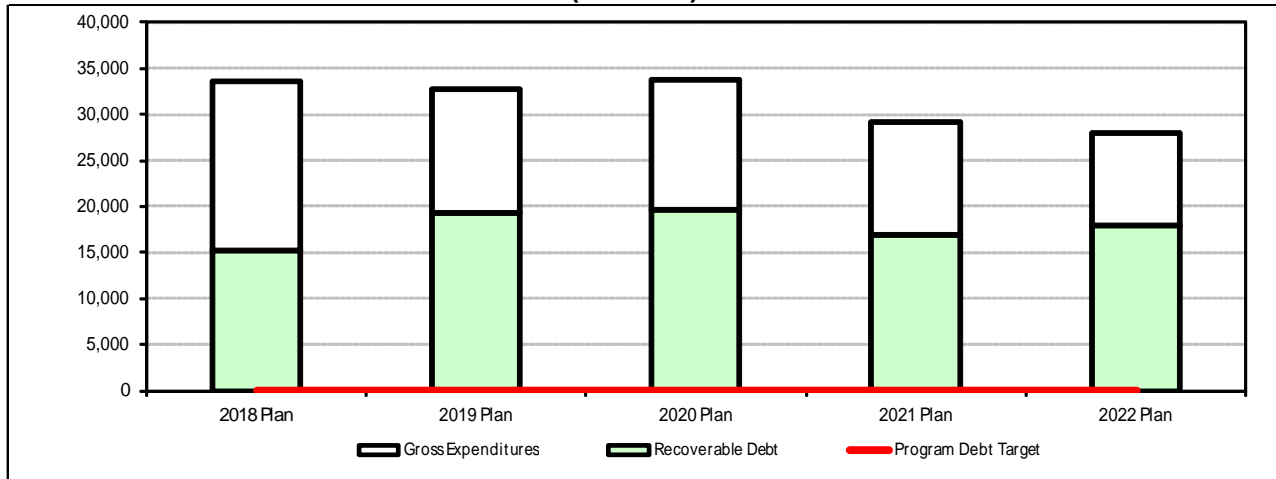
PART II: 2013 – 2022 CAPITAL PROGRAM

10-Year Capital Plan
2013 Recommended Budget, 2014 - 2017 Recommended Plan
 (In \$000s)



	2012		2013 Rec. Budget and 2014-2017 Plan					2013-2017	5-Year Total Percent
	Budget	Projected Actual	2013	2014	2015	2016	2017		
Gross Expenditures:									
2012 Capital Budget & Approved FY Commitments	138,619	88,429	33,231	31,486	8,979	3,046	2,258	79,000	15.4%
Recommended Changes to Approved FY Commitments			6,707	17,069	7,934	936	-	32,646	6.4%
2013 New/Change in Scope and Future Year Commitments			37,195	36,378	27,520	29,017	15,162	145,272	28.4%
2014- 2017 Capital Plan Estimates				78,855	78,129	81,699	16,804	255,487	49.9%
2-Year Carry Forward for Reapproval		33,338						-	0.0%
1-Year Carry Forward to 2013		17,688							
Total Gross Annual Expenditures & Plan	138,619	88,429	77,134	163,788	122,562	114,698	34,224	512,406	100.0%
Program Debt Target	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Financing:									
Recoverable Debt	80,893		41,107	95,833	50,786	49,087	21,663	258,476	50.4%
Reserves/ Reserve Funds	57,726		35,526	36,614	39,105	32,154	12,561	155,960	30.4%
Development Charges								-	0.0%
Provincial/ Federal								-	0.0%
Other Revenue			500	31,341	32,671	33,457		97,969	19.1%
Total Financing	138,619		77,134	163,788	122,562	114,698	34,224	512,406	100.0%
By Project Category:									
Health & Safety								-	0.0%
Legislated	44,359		22,399	20,511	20,636	22,423	24,761	110,730	21.6%
SOGR	17,155		6,027	7,234	6,797	7,509	6,814	34,381	6.7%
Service Improvement	77,105		48,708	136,043	95,129	84,766	2,649	367,295	71.7%
Growth Related								-	0.0%
Total by Project Category	138,619		77,134	163,788	122,562	114,698	34,224	512,406	100.0%
Asset Value (\$) at year-end		421,000	465,618	493,093	591,619	608,443	609,443		
Yearly SOGR Backlog Estimate (not addressed by current plan)			-	-	-	-	-		
Accumulated Backlog Estimate (end of year)			-	-	-	-	-		
Backlog: Percentage of Asset Value (%)		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		
Debt Service Costs			719	5,900	10,735	6,077	5,422	28,854	
Operating Impact on Program Costs			(603)	(158)	(3,004)	(6,549)	9,955	(359)	
New Positions			0.8	0.6	(0.4)	-	-	1	

**10-Year Capital Plan
2018-2022 Recommended Plan
(In \$000s)**



	2018-2022 Capital Plan						10-Year Total Percent
	2018	2019	2020	2021	2022	2013-2022	
Gross Expenditures:							
2012 Capital Budget & Approved FY Commitments	4,939	5,379	5,584	5,584		100,486	15.0%
Recommended Changes to Approved FY Commitments						32,646	4.9%
2013 New/ Change in Scope and Future Year Commitments	13,148	12,549	11,007	7,796	13,843	203,615	30.4%
2018 - 2022 Capital Plan Estimates	15,544	14,778	17,123	15,764	14,150	332,846	49.7%
Total Gross Annual Expenditures & Plan	33,631	32,706	33,714	29,144	27,993	669,594	100.0%
Program Debt Target	N/A	N/A	N/A	N/A	N/A	N/A	
Financing:							
Recoverable Debt	15,284	19,334	19,656	16,915	18,043	347,708	51.9%
Reserves/ Reserve Funds	18,347	13,372	14,058	12,229	9,950	223,916	33.4%
Development Charges						-	0.0%
Provincial/ Federal						-	0.0%
Other Revenue						97,969	14.6%
Total Financing	33,631	32,706	33,714	29,144	27,993	669,594	100.0%
By Project Category:							
Health & Safety						-	0.0%
Legislated	26,867	26,911	25,784	22,919	23,475	236,686	35.3%
SOGR	3,640	2,580	4,710	2,940	1,221	49,472	7.4%
Service Improvement	3,124	3,215	3,220	3,285	3,297	383,436	57.3%
Growth Related						-	0.0%
Total by Project Category	33,631	32,706	33,714	29,144	27,993	669,594	100.0%
Asset Value(\$) at year-end	609,443	609,443	609,443	609,443	609,443		
Yearly SOGR Backlog Estimate (not addressed by current plan)							
Accumulated Backlog Estimate (end of year)	-	-	-	-	-		
Backlog: Percentage of Asset Value (%)	0.0%	0.0%	0.0%	0.0%	0.0%		
Debt Service Costs	2,493	1,909	2,330	2,315	2,054	39,955	
Operating Impact on Program Costs	(6,946)	(7,224)	(7,360)	(7,557)	(2,769)	(32,215)	
New Positions	-	-	-	-	-	1	

10-Year Capital Plan Overview

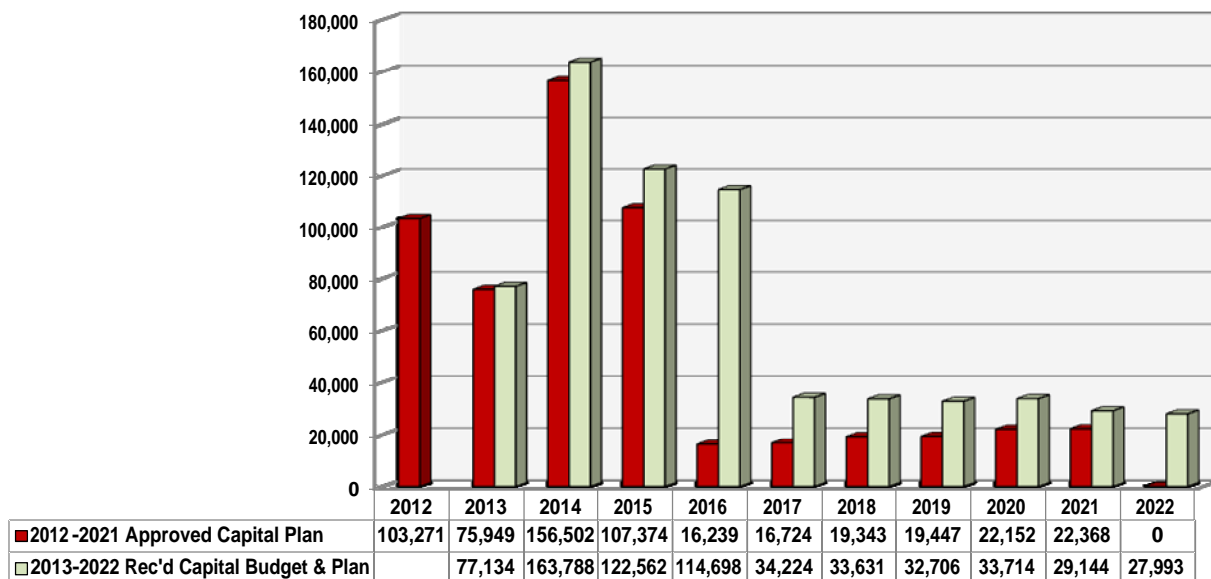
- The 10-Year Recommended Capital Plan totalling \$669.594 million focuses on funding major diversion facilities to advance the City's goal of 70% Diversion by investing in facilities and systems necessary to achieve this target as well as ongoing Collection Yard and Transfer Station Asset Management and Perpetual Care of closed landfills. Specifically, included in the 10-Year Recommended Capital Plan are the following Service Improvement initiatives to address waste diversion and recycling including:
 - Expanding the Green Bin program to include apartments and condominiums, as well as building additional Source Separated Organics processing capacity that will allow for expansion, and provide long term stability for the Green Bin program. These initiatives represent \$98.7 million in total project cost.
 - Expanding recycling capacity by upgrading the Dufferin Single Stream Recycling Facility from 2013 to 2016 represented by \$34 million in total project cost.
 - Expanding the range of recyclable materials and establishing durable goods receiving centres to prepare goods for processing for a total project cost investment of \$8 million.
 - Investing in a Mechanical and Biological Treatment Facility (MBT) to process organics, recycling from residual waste resulting in extending the life of the Green Lane Landfill. In early 2013, staff will report on the feasibility review of this project in context of a *Solid Waste Management Master Plan* to further solidify the strategic direction for the Program. This project has a total project cost of \$198 million.
 - Investing \$47 million in total project cost funding for biogas utilization systems at both Green Lane and the Dufferin/Disco organics facilities which will result in net operating revenue as energy is derived from landfill and process gases.
- The 10-Year Recommended Capital Plan also includes funding for:
 - Legislative projects such as Green Lane landfill development and perpetual care of former landfills. Closed landfills are maintained with ongoing investment in control systems on a pay-as-you go basis. These projects represent \$237 million in total project cost funding over the 10-Year Capital Plan.
 - SOGR projects such as Asset Management for Transfer Stations and Collection Yards having a total project cost of \$49 million.
- The 10-Year Recommended Capital Plan (excluding 2012 carry forward funding), totals \$669.594 million of which \$512.406 million or 77% is projected for the first 5 years, with the final 5 years requiring funding of \$157.188 million or 23%. The final 5 years of the Capital Plan are post commissioning of the MBT facility and are mainly lower expenditures for general asset management.
- 52% or \$347.708 million of the total 10-Year Recommended Capital Plan of \$669.594 million is funded from recoverable debt. The Program relies on the user fee program to fund debt servicing costs on an ongoing basis. The City funds the debt upfront and Solid Waste

Management repays the debt servicing costs (principle and interest) over time through the collection of user fees.

- The Solid Waste Management Operating Budget provides for the repayment of capital debt issued for the Program's capital needs. As such, Solid Waste Management Services does not have annual debt targets. The remaining capital financing is comprised of reserve funds of \$223.916 million (33%) and other, third party funding of \$97.969 million (15%).
- By 2017 the total value of fixed assets for Solid Waste Management Services, including facilities and waste systems is projected to grow from \$421 million to \$609 million representing a 45% increase. This is mainly due to the construction of major facilities such as development of Green Lane, SSO processing plants and the Mechanical and Biological Treatment Facility.
- The Solid Waste Management Program does not have a backlog of State of Good Repair projects. At this time, the funding allocated in the 10-Year Recommended Capital Plan for Solid Waste Management for State of Good Repair projects for 2013 and future years is deemed appropriate to maintain the assets in a steady state of good repair.

Key Changes to the 2012 - 2021 Approved Capital Plan

**Changes to the 2012 -2021 Approved Capital Plan
(In \$000s)**



The 2013 Recommended Capital Budget and the 2014 - 2022 Recommended Capital Plan reflects an increase of \$185.503 million from the 2012 to 2021 Approved Capital Plan. The increase is mainly due to:

- Additional funding of \$91.799 million for the new 10-year engineering and operations contracts for the Green Lane Landfill. These contracts include projects for landfill systems as well as cell excavation and base construction;
- Increased funding for enhancements to the Dufferin Single Stream Recycling Facility totalling \$13.873 million over 2015 to 2016 to upgrade this facility to support requirements for the new processing contract;
- Funding of \$4.375 million for a new 10-year SOGR plan for Collection Yard Asset Management;
- The new 10-year plan also includes 3 new projects:
 1. Replacement Waste Bins Single-Family for \$12.610 million
 2. Green Lane Landfill Gas Utilization for \$35 million; and,
 3. Biogas Gas Utilization for \$12 million.

The 2013 - 2022 Recommended Capital Plan also includes:

- A reduction in project scope of planned future Reuse Centres from 3 sites to 2 sites thereby reducing the project cost by \$11.469 million;

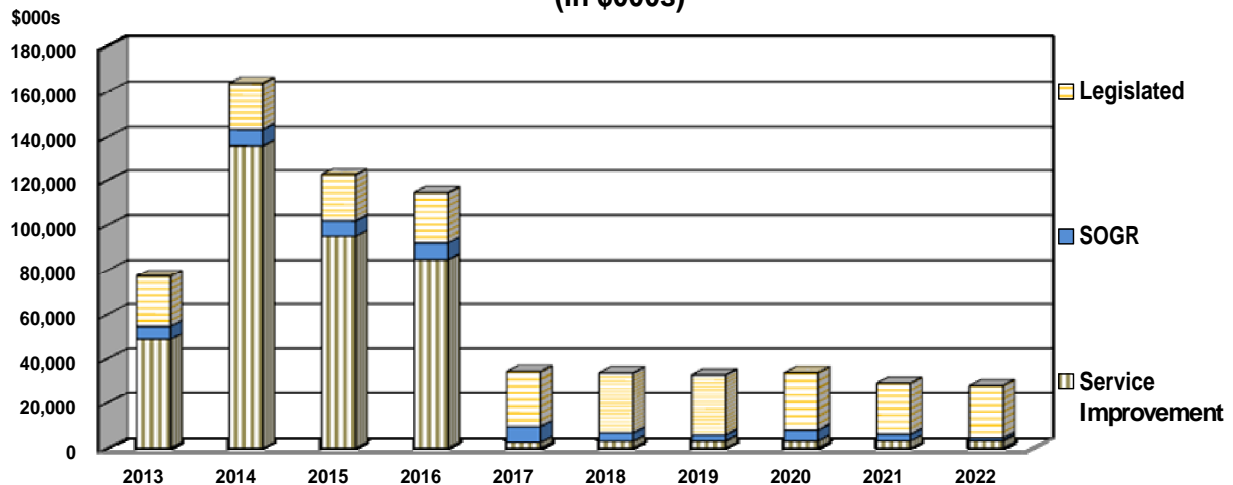
- Deferral of \$8 million for the completion of the Disco SSO Facility from 2013 to 2014;
- Adjusted cash flow funding estimates to reflect the deferral of the construction of the Mechanical and Biological Treatment Facility at Green Lane Landfill from 2013 through 2015 to 2014 through 2016 as well as the re-allocation of \$2.5 million in project costs to fund necessary IT projects to support service delivery.

The following chart details the key project cash flow changes to the 2012 – 2021 Approved Capital Plan.

Summary of Project Changes (In \$000s)

Key Projects	Total Project Cost	2013	2014	2015	2016	2017	2018	2019	2020	2021	2013 - 2021	Revised Total Project Cost
Previously Approved												
SSO Multi-Unit Res. Containers Implementation	2,520	337	197	406	336						1,276	2,520
Recycling Upgrades for Multi-Units	1,567	500	250	250							1,000	1,567
Perpetual Care Of Landfills	4,600	(200)	(200)	(200)	600							4,600
Dufferin SSRM Facility -Site Remediation	9,800	1,609	2,732	4,478							8,819	9,800
Dufferin SSO Processing Facilities	25,100	(5,087)		3,000							(2,087)	25,100
Disco SSO Processing Facilities	69,506	10,110	8,000								18,110	69,506
Mechanical and Biological Treatment Facility -Design	3,554	(1,667)	2,329								662	3,689
Total Previously Approved	116,647	5,602	13,308	7,934	936						27,780	116,782
New												
Change in Scope												
Landfill Systems		4,608	4,316	4,062	4,477	5,207	4,438	7,521	7,104	4,020	45,753	51,611
Cell Excavation And Base Construction		545	1,987	6,764	7,392	8,475	8,566	4,898	3,773	3,646	46,046	54,031
Business System Improvements		560	855	1,105	400						2,920	2,920
New Projects												
Collection Yard Asset Mgmt		975	600	400	400	400	400	400	400	400	4,375	4,775
SSO Multi-Unit Res. Containers Replacement						297	301	301	301	330	1,530	1,804
Replacement Waste Bins Single-Family		1,115	1,145	1,176	1,208	1,242	1,273	1,309	1,344	1,380	11,192	12,609
Green Lane: Landfill Gas Utilization		10,000	20,000	5,000							35,000	35,000
Reuse Centre-Future Sites	15,500	(3,004)	(6,715)	(250)	(250)	(250)	(250)	(250)	(250)	(250)	(11,469)	4,031
Dufferin SSRM Facility -Build	10,750		(5,000)	3,873	15,000						13,873	24,623
Mechanical and Biological Treatment Facility/SWMS Master Plan	197,460	(25,000)	(33,317)	(11,119)	66,914						(2,522)	194,938
Biogas Utilization		7,000	5,000								12,000	12,000
Total New	223,710	(3,201)	(11,129)	11,011	95,541	15,371	14,728	14,179	12,672	9,526	158,698	398,342
Total Changes	340,357	2,401	2,179	18,945	96,477	15,371	14,728	14,179	12,672	9,526	186,478	515,124

2013 – 2022 Recommended Capital Plan
2013–2022 Capital Plan by Project Category
(In \$000s)

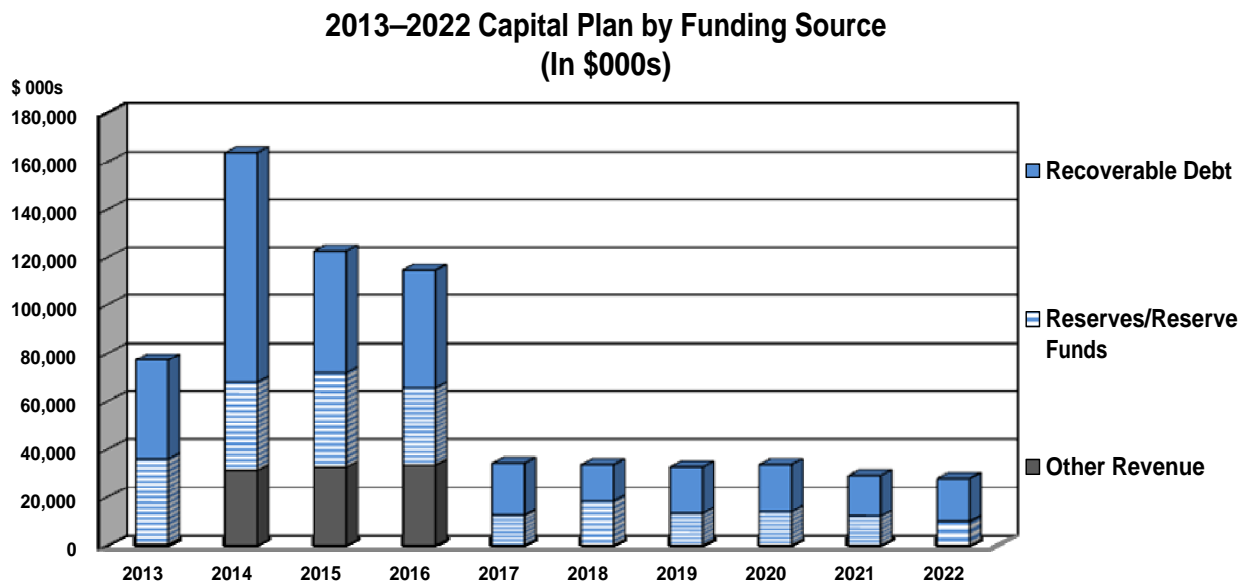


The 10-Year Recommended Capital Plan of \$669.594 million provides funding for Legislated projects of \$236.686 million; State of Good Repair (SOGR) projects of \$49.472 million and Service Improvement projects of \$383.436 million.

- *Legislated* projects represent 35.3% or \$236.7 million of the 10-Year Recommended Capital Plan funding and include the ongoing development of the Green Lane Landfill (\$164.7 million) and Perpetual Care of Old Landfills (\$72 million). Expenditures for Green Lane Development projects reflect Buffer Land Acquisitions of \$15 million, Cell Excavation and Construction of \$81.4 million and Control Systems of \$68.3 million. The trend over the first 5 years of the Capital Plan period is largely influenced by the construction and commissioning of the MBT Facility. As a result, the second 5 years have lower planned cash flows mainly for asset management projects.
- *State of Good Repair* projects represent 7.4% or \$49.5 million of funding provided in the 10-Year Recommended Capital Plan with 89% of planned SOGR cash flows dedicated to Transfer Station Asset Management and Upgrades with 70% of spending planned in 2013 to 2017. The remainder of the SOGR expenditure is provided for Collection Yard Asset Management (\$5.4 million). The trend over the first 5 years is consistent with the second 5 years.
- Achieving a waste diversion rate target of 70% through *Service Improvement Projects* continues to drive Solid Waste Management Services capital program. Over the first 5 years, investment in these projects represents 72% or \$367.3 million of all project funding, declining to 10% or \$16.1 million in the second 5 years as most major diversion facility projects will be completed by 2016. Service Improvement projects over the 10-Year Capital Plan period include the Diversion Systems project (\$49.8 million) that provides funding for various containers for single family homes and multi-residential buildings as well as the Diversion Facility Asset Management project.

Specific *Service Improvement* projects that will establish new facilities required for recycling, organics processing (SSO) and the reuse of durable household goods are as follows:

- Mechanical and Biological Treatment Facility (\$0.2 million in 2013, \$65.1 million in 2014, \$65.3 million in 2015 and \$66.9 million in 2016);
- Green Lane Landfill Gas Utilization (\$10 million in 2013, \$20 million in 2014 and \$5 million in 2015);
- Dufferin SSO Facility (\$1 million in 2013, \$15 million in 2014 and \$8 million in 2015);
- Disco SSO Facility (\$12.4 million in 2013, \$8 million in 2014);
- Biogas Gas Utilization from SSO digesters (\$7 million in 2013, \$5million in 2014);
- Reuse Centres (\$1.5 million in 2013, \$6.5 million in 2014) in order to facilitate the recycling and reuse of durable household goods;
- Business System Improvements (\$0.9 million in 2013, \$0.9 million in 2014, \$1.1 million in 2015 and \$0.4 million in 2016).



The 10-Year Recommended Capital Plan of \$669.594 million will be financed by \$347.708 million of recoverable debt, \$223.916 from Reserve Funds and Other Third Party Revenue of \$97.969 million.

- Recoverable debt accounts for \$258.5 million or 50.4% of the financing for the 2013 Budget and 2014 – 2017 Recommended Capital Plan and amounts to \$347.7 million or 51.9% of the 10-Year Recommended Capital Plan. Recoverable debt is supported by user fees and, as such, Solid Waste Management Services does not have established debt targets. The major expenditure over the 2014 to 2016 period is for the Mechanical and Biological Treatment Facility at Green Lane. Future years are trending lower due to completion of

most major facilities by 2016 and moving towards asset management in the latter years of the Capital Plan.

- Reserve Funds constitute \$156 million or 30.4% of required funding in the first 5 years and \$223.9 million or 33.4% over 10 years. Compared to previous Capital Plans, reserve funding has gradually increased as more projects are being accommodated within this funding source as the Program plans for sustainable reserve funding. For example, for the 2012 to 2021 Capital Plan reserve funding constituted 21% over 10 years as compared to 30.4% for the 2013 to 2022 Recommended Capital Plan.
- Other Third Party funding constitutes \$98 million or 19.1% of funding in the first 5 years and 14.6% over the 10 years period. This funding source is utilized for the Mechanical and Biological Treatment Facility from 2014 to 2016. Pending future negotiations with the private sector, all or part of the capital costs for this project could be funded by the City of Toronto, private sector, or a combination of partnerships with the private sector, or other organizations. This funding source is therefore conditional and may change following the results an external consultant project evaluation and subsequent upcoming Council decisions regarding the 70% Diversion program.
- Reliance on recoverable debt will reduce as the Program continues to fund more projects for the Waste Management Reserve Fund. This reserve fund is dependent on on-going operating contributions.

Major Capital Initiatives by Category
Summary of Major Capital Initiatives by Category
(In \$000s)

	Total Project Cost	2013 Rec. Budget	2014 Plan	2015 Plan	2016 Plan	2017 Plan	2018 Plan	2019 Plan	2020 Plan	2021 Plan	2022 Plan	2013-2022 Total
Legislated												
Green Lane Landfill Acquisition & Development	67,531	6,473	7,852	9,002	9,630	10,739	14,034	10,686	9,328	9,201	9,485	96,430
Landfill Systems	51,611	15,926	12,659	11,634	12,793	14,022	12,833	16,225	16,456	13,718	13,990	140,256
Sub-Total	119,142	22,399	20,511	20,636	22,423	24,761	26,867	26,911	25,784	22,919	23,475	236,686
State of Good Repair (SOGR)												
Transfer Stations	44,105	4,460	6,634	6,397	7,109	6,414	3,240	2,180	4,310	2,540	821	44,105
Collection Yards	4,775	1,567	600	400	400	400	400	400	400	400	400	5,367
Sub-Total	48,880	6,027	7,234	6,797	7,509	6,814	3,640	2,580	4,710	2,940	1,221	49,472
Service Improvements												
Dufferin Single Stream Recycling Facility	34,423	2,359	2,732	13,351	15,000							33,442
Dufferin SSO Processing Facilities	25,100	1,087	15,000	8,000								24,087
Disco SSO Processing Facilities	69,506	12,371	8,000									20,371
Mechanical and Biological Treatment Facility	198,627	155	65,078	65,341	66,914							197,488
Reuse Centre-Future Sites	4,031	1,500	6,500									8,000
Biogas Utilization	12,000	7,000	5,000									12,000
Green Lane Landfill Gas Utilization	35,000	10,000	20,000	5,000								35,000
Diversion Systems	27,663	13,006	12,878	2,332	2,294	2,539	3,074	3,110	3,145	3,210	3,192	48,780
IT Projects	3,598	1,230	855	1,105	558	110	50	105	75	75	105	4,268
Sub-Total	409,948	48,708	136,043	95,129	84,766	2,649	3,124	3,215	3,220	3,285	3,297	383,436
Total	577,970	77,134	163,788	122,562	114,698	34,224	33,631	32,706	33,714	29,144	27,993	669,594

Major Capital Initiatives over the 10-Year Recommended Capital Plan period are mainly composed of Service Improvement projects for facilities; SOGR and Legislated projects for facility and landfill development and on-going asset management. Strategic priorities, Diversion Facility expansion / renovation and new facility construction have been prioritized and included in the 10-Year Recommended Capital Plan continuing progress on achieving the waste diversion target of 70% as approved by City Council in 2007.

State of Good Repair (incl. Legislated) Projects

- *The Green Lane Landfill Acquisition & Cell Development* project with a total project cost of \$96.430 million provides on-going funding for cell development at the Green Lane Landfill site including new waste cell excavation and construction and buffer land acquisition with, respectively, \$81.4 million and \$15 million over 10 years.
- *Landfill Systems* projects have a total project cost of \$51.6 million and include Green Lane Landfill System Development projects and projects for the Perpetual Care of Landfills. Green Lane systems include leachate and gas control systems as well as final cover/storm control/site services and engineering and monitoring. Perpetual Care will provide a variety of works considered necessary for the ongoing maintenance of closed environmentally sound landfill sites after primary operations have ended. The planned cash flow totals \$140.3 million over 10 years.
- The *Transfer Station Asset Management* project has a total project cost of \$44.1 million. This project provides funding to build various improvements to the transfer stations that are required to meet health and safety, operational and environmental requirements, such as compliance with the Gasoline Handling Act, Ministry of Environment (MOE) approvals, Ministry of Labour standards, and the Collective Agreement. Improvements include: preservation and enhancement of existing building and work areas.

Service Improvement Projects

- *The Dufferin SSO Facility project* has a total project cost of \$25.1 million with most of the cash flow occurring between 2013 and 2015 to improve organics processing and to treat resulting wastewater. Construction of this facility that began in 2012 and continues to 2015 for \$25 million will increase the processing capacity from 25,000 to approximately 50,000 tonnes per year by installing a second processing train, to expand the receiving area and to install a system to treat wastewater before discharge to the sanitary sewer.
- *The Disco SSO Facility project* has a total project cost of \$69.5 million with major construction that began in 2011 will be complete in 2014. Design and construction of a new City-owned SSO Processing facility was directed by City Council at its meeting of June 19, 20 and 22, 2007. This new facility will receive and process up to 110,000 tonnes per year of SSO starting in 2014/15.
- *The Mechanical and Biological Treatment Facility project* has a total project cost of \$198.6 million with \$197.488 million in funding included in the 10-Year Recommended Capital Plan. This project provides funding for professional technical services to assist with the request for proposal (RFP) and construction service efforts required for a vendor procurement process as a design, build, and operate (DBO) initiative. The processing capacity (for mixed residual waste & biosolids) by mechanical biological treatment (MBT) including an anaerobic digestion (AD) is 240,000 tonnes per year (from 2016 onwards) in order to approach an overall waste diversion rate of 70%. The facility is to be built on City owned lands adjacent to the Green Lane landfill.

10-Year Capital Plan Impact on the Operating Budget
Operating Impact Summary
(In \$000s)

Program Costs, Revenues and Net (\$000s)	2013 Rec. Budget	2014 Plan	2015 Plan	2016 Plan	2017 Plan	2018 Plan	2019 Plan	2020 Plan	2021 Plan	2022 Plan	2013-2022 Total
2013 Recommended Capital Budget											
Program Gross Expenditure	(603)	1,547	4,197	4,455	4,550	4,647	4,677	4,848	4,951	5,056	38,325
Program Revenue		1,705	7,201	11,004	11,288	11,593	11,901	12,208	12,508	7,825	87,233
Program Costs (Net)	(603)	(158)	(3,004)	(6,549)	(6,738)	(6,946)	(7,224)	(7,360)	(7,557)	(2,769)	(48,908)
Approved Positions	0.8	0.6	(0.4)								1.0
Recommended 10-Year Capital Plan											
Program Gross Expenditure					16,693						16,693
Program Revenue											
Program Costs (Net)					16,693						16,693
Approved Positions											
Total											
Program Gross Expenditure	(603)	1,547	4,197	4,455	21,243	4,647	4,677	4,848	4,951	5,056	55,018
Program Revenue		1,705	7,201	11,004	11,288	11,593	11,901	12,208	12,508	7,825	87,233
Program Cost (Net)	(603)	(158)	(3,004)	(6,549)	9,955	(6,946)	(7,224)	(7,360)	(7,557)	(2,769)	(32,215)
Approved Positions	0.8	0.6	(0.4)								1.0

Approval of the 10-Year Recommended Capital Plan will result in a decrease to future year Operating Budgets by a total of \$32.215 million net over the 2013 – 2022 period. Approved positions will increase by 1 permanent staff for the Disco facility over the 10-year time frame. This is comprised of costs to maintain/resulting revenues:

- **Green Lane Landfill Gas Utilization:** The estimated total decrease in operating costs primarily results from the completion of this capital project which facilitates the collection and processing of landfill gas. The City's Green Lane Landfill generates combustible landfill gas and has a system to collect and flare this gas in accordance with the requirements of the permit issued under the Environmental Protection Act. The gas can be exploited as an energy source to provide an economic benefit to the City. The purpose of this project is to create the capability to upgrade the quality of the gas and to transport the improved gas to a location where it will be sold to an end user. The sale of the upgraded gas will achieve a favourable return on the initial capital investment of \$35 million and will generate a revenue stream over a 20 - 30 year period that will help offset the cost of developing and operating the landfill. The estimated incremental revenue by 2022 is \$57.4 million resulting in net operating revenue of \$30 million.
- **Biogas Utilization:** The City's organics processing facilities at the Dufferin Waste Management Facility and Disco Road transfer station generates combustible biogas through anaerobic digestion. The biogas can be utilized as a source of renewable energy to provide an economic benefit to the City. The purpose of this project is to create the capability to convert the biogas into a renewable energy product, either electricity or renewable natural gas, and to transport the energy product to a location where it can be connected and supplied to the local energy distribution grid. The sale of the renewable energy product will achieve a favourable return on the initial capital investment of \$12 million and will generate

a revenue stream over a 20 year period. The estimated incremental revenue by 2022 is \$29.9 million resulting in net operating revenue of \$19.4 million.

- **MBT Facility:** The Program will see a net operating cost increase arising from the completion and commissioning of the MBT facility at Green Lane. As noted previously, all estimates for the cost of this facility will be reviewed prior to the start of construction. Initial estimates of the resultant operating impact of this project show an anticipated increase in contracted processing of residual waste of \$30 million per year partially offset by a reduced cost of disposal at Green Lane. It is estimated that this project will increase future year Operating Budgets by a total of \$16.693 million net beginning in 2017.

The detailed estimated operating impact by project is as follows:

**Net Operating Impact by Project
(In \$000s)**

Project	2013 Rec Budget		2014 Plan		2015 Plan		2016 Plan		2017 Plan		2013 - 2017 Capital Budget		2018 - 2022 Capital Plan	
	\$000s	Pos.	\$000s	Pos.	\$000s	Pos.	\$000s	Pos.	\$000s	Pos.	\$000s	Pos.	\$000s	Pos.
Previously Approved Projects														
Disco SSO Facility	(888)		888	1.0								1		
IT Strategy Plan/ Assessments	125	0.8	(63)	(0.4)	(62)	(0.4)								
SSO Multi-Unit Res.Containers	160		207		133						500			
New Projects- 2013														
Biogas Utilization			(1,190)		601		(2,614)		(2,631)		(5,834)		(13,539)	
Green Lane Landfill Gas Utilize					(3,676)		(3,935)		(4,107)		(11,718)		(18,317)	
New Projects- Future Year														
MBT-DBO Eng. and Construct.									16,693		16,693			
Total Recommended (Net)	(603)	0.8	(158)	0.6	(3,004)	(0.4)	(6,549)		9,955		(359)	1	(31,856)	

Capital Project Delivery: Temporary Positions

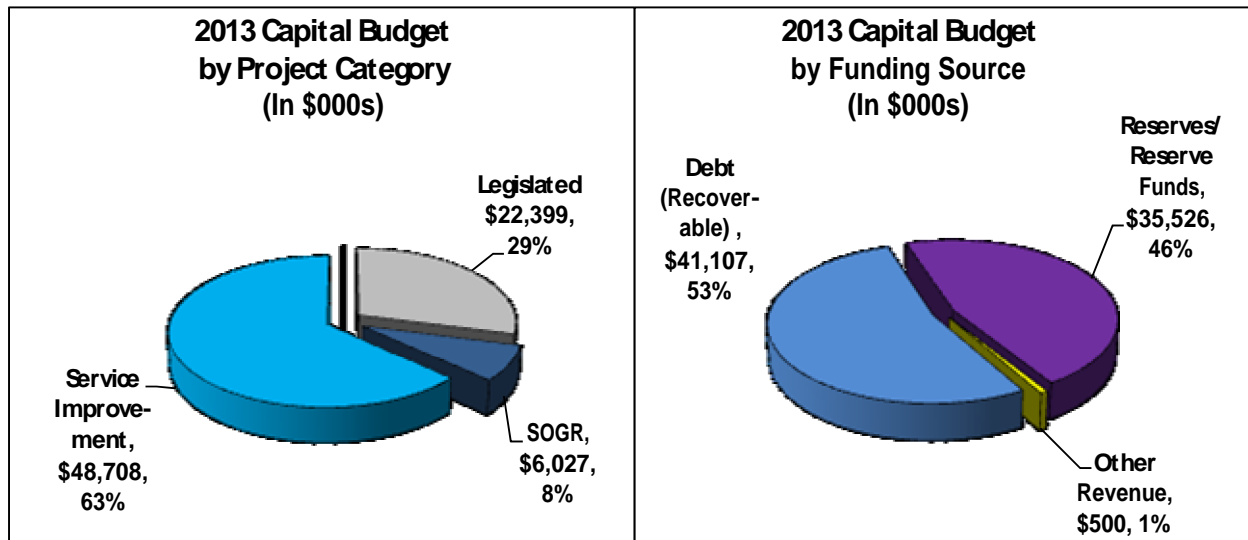
Position Title	CAPTOR Project Number	# of Positions	Project Delivery		Salary and Benefits \$ Amount (\$000s)					
			Start Date	End Date	2013	2014	2015	2016	2017	2018 - 2022
Chief Booth Attendant	SOL000065-72	9.5	2009	2015				(478.0)		
Total		9.5						(478.0)		

Approval of the 2013 Recommended Capital Budget includes previously approved temporary capital positions to deliver the project for SSO Multi-Unit Residential Containers Implementation.

- Implementation of source separated organics (SSO) collection in apartments commenced in 2009. The program was to be rolled out over a period of three years. Due to budget constraint and operational issues it was deemed necessary to slow the rate of implementation. The capital expenditures are for the purchase of in-home organics containers for each unit which will be provided to residents at no charge. The operating impact consists of 9.5 temporary Chief Booth Attendants. The assignment will terminate in 2015 and result in an operating cost reduction of \$0.478 million in 2016.

PART III - 2013 RECOMMENDED CAPITAL BUDGET

2013 Capital Budget by Project Category and Funding Source



These figures exclude funds carried forward from 2012 into 2013

The 2013 Recommended Capital Budget requires 2013 cash flow funding of \$77.134 million.

- Legislated projects account for 29% of the total planned cash flow for 2013 at \$22.4 million, 63% or \$48.7 million is for Service Improvement projects and 8% or \$6 million funds SOGR projects;
 - Legislated projects include the perpetual care of closed landfills (\$6.1 million) and landfill development at Green Lane including control systems (\$9.8 million), buffer land acquisition (\$1.5 million) and waste cell excavation and construction (\$5 million).
- SOGR projects for 2013 include:
 - The Transfer Station Asset Management project (\$4.5 million) for various improvements that are required to meet health and safety, operational and environmental requirements and include preservation of existing infrastructure, additional facilities to enhance services, reduced off-site impacts and improvements to operating efficiency.
 - The Collection Yard Asset Management project (\$1.6 million) recommended for site improvements and renovations to various yards.
- Service Improvement projects for 2013 include:
 - The Diversion Systems project (\$1.4 million) provides funding for RFID (Radio Frequency Identification) System for bins (\$1.2 million).
 - Projects for the construction of 2 Reuse Centres (\$1.5 million); the construction of the Disco SSO Processing Facility (\$12.4 million); the Dufferin SSO Facility Design (\$1.1

million) and funding for the design/ specification of the Mechanical and Biological Treatment Facility (\$0.2 million). Funding of \$2.4 million is also allocated to improvements to the Dufferin Single Stream Recycling Facility. In addition, \$0.9 million will be spent on short and long term IT business systems planning.

- New Service Improvement projects include the Green Lane Landfill Gas Utilization project (\$10 million), the Biogas Utilization project (\$7 million) and the replacement of single residential waste bins and SSO containers (\$12.1 million).
- The 2013 Recommended Capital Budget is funded by a combination of recoverable debt (53% of the 2013 cash flow at \$41.1 million), reserve funding (46% or \$35.5 million) and other (FCM) funding (1% or \$0.5 million).
 - The Waste Management Reserve Fund is funding 100% of expenditures for the Transfer Station Asset Management project and 97% of Collection Yard Asset Management project; 100% of the Biogas Utilization project, Replacement Waste Bins and Reuse Centre development as well as 46% of the construction of the Disco SSO Facility in 2013. The Waste Management Reserve Fund is funding 50% or \$8 million of all Green Lane landfill development in 2013. The remaining funding requirements for these projects are funded from recoverable debt.
 - The Perpetual Care Reserve Fund is funding \$6.1 million or 100% of the 2013 requirements for perpetual care of old landfills.

**2013 Recommended Cash Flow & Future Year Commitments
(In \$000s)**

	2011 & Prior Year Carry Forward	2012 Previously Approved Cash Flow Commitments	2013 New Cash Flow Rec'd	2013 Total Cash Flow Rec'd	2012 Carry Forwards	Total 2013 Cash Flow (Incl 2012 C/Fwd)	2014	2015	2016	2017	2018	2019	2020	2021	2022	Total Cost
Expenditures																
Previously Approved	16,775	23,164		39,939	16,796	56,735	48,555	16,913	3,982	2,258	4,939	5,379	5,584	5,584		149,929
Change in Scope			5,713	5,713		5,713	7,158	11,931	12,269	13,682	13,004	12,419	10,877	7,666	13,843	108,562
New			5,435	5,435		5,435										5,435
New w/ Future Year			26,047	26,047		26,047	29,220	15,589	16,748	1,480	144	130	130	130		89,618
Total Expenditure	16,775	23,164	37,195	77,134	16,796	93,930	84,933	44,433	32,999	17,420	18,087	17,928	16,591	13,380	13,843	353,544
Financing																
Recoverable Debt	9,878	18,237	12,993	41,108	13,078	54,186	73,527	30,684	28,105	12,342	11,933	15,928	16,280	13,380	13,843	270,208
Other		500		500		500										500
Reserves/Res Funds	6,897	4,427	24,202	35,526	3,718	39,244	11,406	13,749	4,894	5,078	6,154	2,000	311			82,836
Development Charges																
Provincial/Federal																
Total Financing	16,775	23,164	37,195	77,134	16,796	93,930	84,933	44,433	32,999	17,420	18,087	17,928	16,591	13,380	13,843	353,544

Solid Waste Management Services' 2013 Recommended Capital Budget is \$93.930 million, which provides \$16.796 million in cash flow funding carried forward from 2012 into 2013 for projects not completed, \$39.939 million for previously approved projects underway and \$37.195 million for new projects.

- New projects require cash flow funding of \$37.195 million in 2013 for the IT Strategic Plan & Business Systems (\$0.6 million), Collection Yard (\$1 million) and Transfer Station Asset Management (\$4.5 million) as well as Perpetual Care of old landfills (\$5.5 million). Also included is new funding for Diversion Systems (\$1 million), Reuse Centres (1.5 million), the Dufferin SSRM Facility (\$0.8 million), the Biogas Utilization project (\$7 million) and the Green Lane Landfill (\$15.3 million).
- Approval of the 2013 Recommended Capital Budget of \$93.930 million will result in future year commitments of \$36.378 million in 2014, \$27.520 million in 2015, \$29.017 million in 2016, \$15.162 million in 2017, \$13.148 million in 2018, \$12.549 million in 2019, \$11.007 million in 2020, \$7.796 million in 2021 and \$13.8 million in 2022.
- Projects include the replacement of SSO and waste containers for single family households, increased funding for on-going landfill development, 2 Reuse Centres, the Dufferin and Disco SSO Facilities and ongoing funding for the design of the Mechanical and Biological Treatment Facility at Green Lane. The 10-year commitments in the period 2014 to 2022 are primarily required for the new 10-year contract for cell development and systems at Green Lane.
- For 2013, including funding carried forward from previous years, projects are funded by reserve funding of \$39.2 million (41.7%) and recoverable debt of \$54.2 million (57.8%), with other funding comprising \$0.5 million (0.5%) of total funding.

2013 Recommended Capital Project Highlights

The 2013 Recommended Capital Budget provides funding of \$93.930 million to:

- Continue improving Diversion Systems such as implementation of multi-unit residential SSO containers and recycling upgrades, replacement of single family next generation SSO containers & waste / recycling containers and continuing implementation of the RFID system for bins (\$13.6 million);
- Continue building Source Separated Organics processing capacity at the Dufferin and Disco facilities (\$18 million);
- Continue Transfer Station and Collection Yard asset management (\$10.3 million);
- Continue developing Green Lane including waste cell development, control systems and buffer land acquisition (\$20.1 million). The 10-Year commitments highlighted in the following table are the estimated costs for the new contracts for engineering and operations at the landfill site;
- Continue Perpetual Care of Old Landfills including control systems (\$6.1 million);
- Begin projects for landfill gas and biogas utilization (\$17 million);
- Begin re-fitting of the Dufferin recycling facility (\$2.4 million); and,
- Begin proceeding with design and specification of the Mechanical and Biological Treatment Facility at Green Lane (\$0.8 million).

2013 Recommended Capital Project Highlights (In \$000s)

Project	Total Project Cost	2013	2014	2015	2016	2017	2013 - 2017	2018	2019	2020	2021	2022	2013 - 2022 Total
Landfill Acquisition & Develop	67,531	7,982	7,852	9,002	9,630	9,239	43,705	12,534	9,186	7,828	7,701	7,985	88,939
Landfill Systems	51,611	18,089	6,211	5,133	5,415	6,831	41,679	5,553	8,742	8,763	5,679	5,858	76,274
Transfer Stations	44,105	8,174					8,174						8,174
Dufferin Recycling Facility	34,423	2,359	2,732	13,351	15,000		33,442						33,442
Dufferin SSO Facility	25,100	2,087	15,000	8,000			25,087						25,087
Disco SSO Facility	69,506	16,001	8,000				24,001						24,001
MBT Facility	198,627	800	2,395				3,195						3,195
Reuse Centre-Future Sites	4,031	4,253	6,500				10,753						10,753
Biogas Utilization	12,000	7,000	5,000				12,000						12,000
Landfill Gas Utilization	35,000	10,000	20,000	5,000			35,000						35,000
Subtotal	541,934	76,745	73,690	40,486	30,045	16,070	237,036	18,087	17,928	16,591	13,380	13,843	316,865
Various Recommended Commitments	36,036	17,185	11,243	3,947	2,954	1,350	36,679	-	-	-	-	-	36,679
Total	577,970	93,930	84,933	44,433	32,999	17,420	273,715	18,087	17,928	16,591	13,380	13,843	353,544

(includes carry forward funding)

PART IV: ISSUES FOR DISCUSSION

2013 Issues**Achieving the 70% Diversion Target & the Mechanical and Biological Treatment (MBT) Facility**

The Solid Waste Management Services' capital program is driven primarily by the City's objective to achieve the 70% diversion target and it is therefore on that basis that the 2013 Recommended Capital Budget and 2014-2022 Recommended Capital Plan has been established.

The 10-Year Recommended Capital Plan will continue to fund a major expansion of diversion activities during this timeframe, mainly:

- ✓ Expanding the Green Bin program to include apartments & condominiums and future replacement of SSO in-unit containers.
- ✓ Replacement of SSO containers, waste & recycling bins for single family residential.
- ✓ Establishing durable goods receiving centres to prepare goods for processing.
- ✓ Providing single home residents with replacement SSO containers and waste bins that will facilitate automated pick-up/collection.
- ✓ Building additional Source Separated Organics processing and Single Stream Recycling capacity that will provide long term stability for the Green & Blue Bin programs.
- ✓ Building landfill gas and biogas utilization facilities in order to provide a viable source of renewable energy and offset operating costs.
- ✓ Building a Mechanical and Biological Treatment Facility that will increase diversion capacity to attain the 70% Diversion target and extending the life of the Green Lane landfill. The Mechanical and Biological Treatment Facility will process 240,000 tonnes of waste. This will increase the overall diversion rate as more recyclable and organic material is not sent to the landfill.

These costs will peak in the period 2014 to 2016 when \$198 million in funding is required for the construction of the Mechanical and Biological Treatment (MBT) Facility at Green Lane. The MBT Facility funding assumptions are somewhat changed from the 2012 to 2021 Approved Capital Plan. 50% of the cost to construct the facility is still assumed to be funded from 3rd party operators, 30% is now funded by recoverable debt and 20% from reserve funds. Third party funding is only estimated until a decision is made on whether to proceed with

construction through a partnership with a 3rd party provider or 100% (solely) through City funding or 100% through a 3rd party provider.

Ernst & Young and Golder Associates have been awarded the contract for a study that will determine the optimal financing plan for the MBT facility. The 3 options under review are: Design-Build-Operate (the traditional form of project management), Design -Build- Finance-Operate-Maintain and 100% Private Sector Development. Also to be highlighted in the study is the potential availability of Public-Private Partnership (PPP) federal funding which could amount to 25% of the total project cost.

Once the study of the various financing options is complete, the General Manager of Solid Waste Management Services will report to Public Works and Infrastructure Committee, Budget Committee and City Council in the first quarter of 2013. This will include a five-year review of "Target 70", including financial assessment regarding the viability of proceeding with the Mechanical and Biological Treatment Facility or alternative diversion options.

Future Year Issues

Long-Term Capital Program Reserve Funding

The Capital Program for Solid Waste Management Services is 52% funded through recoverable debt. The City advances debt funding annually for this portion required for the Solid Waste Managements' capital work and the Program repays the annual debt servicing costs (interest and principle). The repayment of debt servicing cost is budgeted in the Program's Operating Budget and is funded by the volume based user fees collected.

At the inception of the volume based user fee system in 2008, it was projected that, in order to maintain financial viability of diversion initiatives, sustainable contributions to the Waste Management Reserve Fund would have to be made based on user fees having modest annual increases in the range of 3.5%. Limiting user fee increases impacts the funding that is available in current and future years to finance capital projects required to meet the 70% Diversion Target. Depending on the timing and funding required, the Program may be required to defer projects until there is sufficient funding in the reserve fund or, alternatively, incur more debt. The reserve balance cannot drop below a zero balance as there is no other funding source for Solid Waste Management expenditures. Given the pressures on the reserve, user fees must grow at a sufficient rate to offset future growth in expenditures.

In establishing the basis for reserve funding, the key decision remains to be whether or not the City should continue to pursue a 70% waste diversion target. Further decisions would be required, subject to a re-confirmation by Council of its commitment to reaching the goal of 70% waste diversion. These decisions include addressing the most effective way to achieve 70% diversion whether that is building the MBT Facility at Green Lane or alternative service delivery

options. These strategic goals will ultimately determine the financial model required to support the program. The 10-Year Recommended Capital Plan assumes both the MBT facility and the 70% Diversion Target are still viable.

Green Lane Land Transfer Tax

On July 21, 2008, the Provincial Government notified the City of Toronto that the land transfer tax originally calculated for the purchase lands for the Green Lane Landfill was insufficient based on a new assessment of allocations for the lands, authorizations, contracts and goodwill as defined in the purchase agreement. As a result, the City has incurred the extra cost of \$3.661 million in order to remit the requested land transfer tax. This amount includes \$0.250 million to retain appropriate legal counsel in order to pursue an appeal of the charge.

A separate report entitled "Notice of Assessment under the Land Transfer Tax Act related to the Green Lane Landfill" was before Council in Fall of 2008. Council directed that the expenditures be funded from the Waste Management Reserve Fund. Should the City be successful in its appeal of the assessment, the reserve fund will be replenished. Conversely, if the appeal fails, the Program would have to absorb all costs related to this expenditure within the reserve fund thereby reducing availability of capital funding to achieve 70% diversion.

There are currently on-going legal expenses for outside counsel related to this claim. The appeal has not yet been heard. Legal Services has filed documents with the Superior Court with a resolution not likely to be determined until 2014. When appropriate, Program staff will provide a briefing to update the status of the appeal and on the likelihood of recouping the reserve funding.

Appendix 1

2012 Performance

2012 Key Accomplishments

In 2012, Solid Waste Management Services accomplished the following:

- ✓ Continued rollout of SSO collection services to multi-residential locations by providing in-unit organic containers;
- ✓ Continued providing in-unit recycling containers to increase the recovery of recyclable material in multi-unit residences;
- ✓ Continued construction of the Disco SSO main processing building and wastewater treatment building which is nearing completion; erection of the anaerobic digester tanks is also nearing completion;
- ✓ Continued work on emergency repairs to the Dufferin organics processing facility with the new bio-filter and digester which are nearing completion;
- ✓ Developed an initial 10 year IT Plan that will identify the division's future IT requirements;
- ✓ Completed Mixed Waste Processing (MBT) Financial Planning Study.

2012 Capital Variance Review

2012 Budget to Actual Comparison (In \$000s)

2012 Approved	Actuals as of Sept. 30, 2012 (3rd Quarter Variance)		Projected Actuals at Year End		Unspent Balance	
	\$	% Spent	\$	% Spent	\$ Unspent	% Unspent
138,619	50,860	36.7%	88,429	63.8%	50,190	36.2%

Capital expenditures for the period ending September 30, 2012 total \$50.860 million or 36.7% of the 2012 Approved Capital Budget of \$138.619 million. Expenditures by year-end are projected to be \$88.429 million or 63.8% of the 2012 Approved Capital Budget.

Of the \$50.190 million projected to be unspent at year-end, \$50.134 million in funding will be carried forward. The amount of funding to be carried forward from 2012 to 2013 will be updated and reported in early 2013.

The projected year-end under-spending is largely attributable to the following projects:

- The *Green Lane Landfill* project: Capital expenditures for this project totalled \$22.164 million representing 60.2% of the 2012 approved cash flow of \$36.791 million during the nine months ended September 30, 2012. Year-end under-spending is projected to be \$5.832 million and is mainly attributed to the Green Lane Development project. Projects for Cell Excavation and Base Construction and subsequent installation of Control Systems had been delayed in the past due to continuing lower than expected waste tonnage. A lower rate of spending is due to less construction activity at the beginning of the year, during the winter months. As a result, the Control Systems projects including those for leachate and gas will be largely under-spent by year-end.
- The *Dufferin Single Stream Recycling Facility* project's capital expenditures totaled \$0.130 million representing 1.5% of the 2012 approved cash flow of \$8.827 million as of September 30, 2012. Work at the facility encountered unanticipated delays as it required close coordination with the operating contractor in order to avoid shutting down the facility. Due to contractual obligations concerning minimum processing tonnage targets, the remainder of the funding of \$8.1 million will be carried forward from 2012 to 2013.
- The *Disco SSO Processing Facility* project's capital expenditures totaled \$16.483 million representing 31.3% of the 2012 approved cash flow of \$52.706 million as of September 30, 2012. Due to wet weather delaying soil remediation and the delayed start of construction in 2011, the overall project delay will result in continued under-spending in 2012. It is estimated that \$21.7 million of the 2012 approved cash flow will be unspent by year-end and will be carried forward with project completion still expected in 2013.
- The *Diversion Systems* project's capital expenditures are \$4.693 million representing 51% of the 2012 approved cash flow of \$9.200 million as of September 30, 2012. It is estimated that \$5.8 million of the 2012 approved cash flow will be spent by year-end. The under-spending of \$3.4 million is mainly caused by slower than planned implementation of organics and recycling projects for multi-residential buildings due to lower than expected demand.

Appendix 2

10-Year Recommended Capital Plan Project Summary (In \$000s)

Project	2013	2014	2015	2016	2017	2013 - 2017	2018	2019	2020	2021	2022	2013 - 2022	
DIVERSION FACILITIES	32,500	102,310	86,692	81,914		303,416						303,416	
Dufferin Single Stream Recycling Facility	2,359	2,732	13,351	15,000		33,442						33,442	
Dufferin SSO Processing Facilities	2,087	15,000	8,000			25,087						25,087	
Disco SSO Processing Facilities	16,001	8,000				24,001						24,001	
Mechanical and Biological Treatment Facility	800	65,078	65,341	66,914		198,133						198,133	
Reuse Centre-Future Sites	4,253	6,500				10,753						10,753	
Biogas Utilization	7,000	5,000				12,000						12,000	
ASSET MANAGEMENT	10,256	7,234	6,797	7,509	6,814	38,610	3,640	2,580	4,710	2,940	1,221	53,701	
Transfer Stations	8,174	6,634	6,397	7,109	6,414	34,728	3,240	2,180	4,310	2,540	821	47,819	
Collection Yards	2,082	600	400	400	400	3,882	400	400	400	400	400	5,882	
GREEN LANE LANDFILL	7,982	7,852	9,002	9,630	10,739	45,205	14,034	10,686	9,328	9,201	9,485	97,939	
Buffer Land Acquisition	3,009	1,500	1,500	1,500	1,500	9,009	1,500	1,500	1,500	1,500	1,500	16,509	
Cell Excavation And Base Construction	4,973	6,352	7,502	8,130	9,239	36,196	12,534	9,186	7,828	7,701	7,985	81,430	
IT Projects	1,705	1,095	1,265	950	160	5,175	100	105	75	75	105	5,635	
RFID/GPSS System	355	240	160	550	160	1,465	100	105	75	75	105	1,925	
IT Strategic Plan Business System Improvements-Short Term	300					300						300	
	1,050	855	1,105	400		3,410						3,410	
DIVERSION SYSTEMS	13,256	12,878	2,332	2,294	2,539	33,299	3,074	3,110	3,145	3,210	3,192	49,030	
Diversion Facility Asset Management	277	500	500	750	1,000	3,027	1,500	1,500	1,500	1,500	1,500	10,527	
Recycling Upgrades for Multi-Units	1,000	250	250			1,500						1,500	
Replacement SSO Containers-Single Family SSO Multi-Unit Res.	10,341	10,514				20,855						20,855	
Containers Implementation SSO Multi-Unit Res.	523	469	406	336		1,734						1,734	
Containers Replacement Replacement Waste Bins Single-Family	1,115	1,145	1,176	1,208	1,242	5,886	1,273	1,309	1,344	1,380	1,418	12,610	
							297	301	301	301	330	274	1,804
LANDFILL SYSTEMS	28,230	32,659	16,634	12,793	14,022	104,338	12,833	16,225	16,456	13,718	13,990	177,560	
Green Lane (Final Cover/Storm Control/Ste Services)	3,221	1,274	1,315	1,418	1,476	8,704	1,499	1,579	1,615	1,678	1,756	16,831	
Green Lane: Engineering And Monitoring	98	346	102	105	108	759	111	247	118	251	125	1,611	
Green Lane: Leachate Control System	2,429	1,356	1,404	1,460	1,519	8,168	1,575	2,283	2,632	1,493	1,462	17,613	
Green Lane: Landfill Gas Control System	6,341	3,365	2,312	2,432	3,728	18,178	2,368	4,633	4,398	2,387	2,515	34,479	
Green Lane: Landfill Gas Utilization	10,000	20,000	5,000			35,000						35,000	
Perpetual Care Of Landfills	6,141	6,318	6,501	7,378	7,191	33,529	7,280	7,483	7,693	7,909	8,132	72,026	
Total (including carry forwards)	93,929	164,028	122,722	115,090	34,274	530,043	33,681	32,706	33,714	29,144	27,993	687,281	

Appendix 3

**2013 Recommended Capital Budget;
2014 to 2022 Capital Plan**

Appendix 4

**2013 Recommended Cash Flow and
Future Year Commitments**

Appendix 5

2013 Recommended Capital Project with Financing Details

Appendix 6

2013 Reserve / Reserve Fund Review
(In \$000s)

Reserve/Reserve Fund Review - Program Specific

Reserve / Reserve Fund Name	Project / SubProject Name and Number	Projected Balance as of December 31, 2012	Proposed Cash Flows \$000s										2013 - 2022 Total
			2013 Rec. Budget	2014 Plan	2015 Plan	2016 Plan	2017 Plan	2018 Plan	2019 Plan	2020 Plan	2021 Plan	2022 Plan	
XRI1013 Perpetual Care of Landfill Reserve Fund	Beginning Balance (Jan. 1)	24,859	9,663	597	609	621	633	646	659	672	685	699	9,663
	Estimated Interest Earned		145	12	12	12	13	13	13	13	14	14	261
	Contributions (Operating)	6,168	6,141	6,318	6,501	7,378	7,191	7,280	7,483	7,693	7,909	8,132	72,026
	Morningside Landfill Remediation	(13,789)	(9,211)										(9,211)
	Basic Perpetual Care	(7,576)	(4,094)	(4,212)	(4,334)	(4,919)	(4,794)	(4,853)	(4,989)	(5,129)	(5,273)	(5,421)	(48,017)
	New Control Systems		(2,047)	(2,106)	(2,167)	(2,459)	(2,397)	(2,427)	(2,494)	(2,564)	(2,636)	(2,711)	(24,009)
	Subtotal Perpetual Care Pproject	(7,576)	(6,141)	(6,318)	(6,501)	(7,378)	(7,191)	(7,280)	(7,483)	(7,693)	(7,909)	(8,132)	(72,026)
Total Proposed Contributions (Withdrawals)	(15,196)	(9,066)	12	12	12	13	13	13	13	14	14	(8,950)	
TOTAL RESERVE FUND BALANCE AT YEAR-END		9,663	597	609	621	633	646	659	672	685	699	713	713

Reserve / Reserve Fund Name	Project / SubProject Name and Number	Projected Balance as of December 31, 2012	Proposed Cash Flows \$000s										2013 - 2022 Total
			2013 Rec. Budget	2014 Plan	2015 Plan	2016 Plan	2017 Plan	2018 Plan	2019 Plan	2020 Plan	2021 Plan	2022 Plan	
XRI1404 Waste Management Reserve Fund	Beginning Balance (Jan. 1) Includes 2011 deferred surplus	88,026	87,226	61,883	49,260	36,592	34,571	38,606	36,773	40,469	44,085	49,362	87,226
	Estimated Interest Earned		1,308	1,238	985	732	691	772	735	809	882	987	9,140
	Contributions (Withdrawals) Operating	19,118	15,546	13,306	10,016	10,016	10,016	10,016	10,016	10,016	10,016	8,000	106,960
	Funding for Green Lane Cell Excavation							(5,000)	(2,000)				(7,000)
	Funding for Green Lane Systems Devel.	(339)	(3,619)	(3,385)	(2,312)	(2,432)	(3,728)	(1,154)					(16,630)
	Transfers (to) from Green Lane Operating	1,789				(1,620)	(1,109)	(893)	(1,020)	(1,155)	(1,301)	(7,097)	(14,194)
	Funding of Pre-2008 Capital Projects	(4,711)											
	Funding of Transfer Station Capital	(3,542)	(8,174)	(6,634)	(6,397)	(7,109)		(3,240)	(2,180)	(4,310)	(2,540)		(40,584)
	Funding of Collection Yard Capital	(731)	(1,527)	(400)	(400)	(400)	(400)	(400)	(400)	(400)	(400)	(400)	(5,127)
	Funding of Disco SSO Facility	(11,745)	(5,745)										(5,745)
	Funding of Reuse Centres		(1,496)	(2,535)									(4,031)
	Funding of Biogas Utilization		(7,000)										(7,000)
	Funding of MBT Facility- Eng & Build		(12,536)	(13,068)	(13,383)								(38,987)
	Fund of Replace Waste Bins Single-Res.		(1,115)	(1,145)	(1,176)	(1,208)	(1,242)	(1,273)	(1,309)	(1,344)	(1,380)	(1,418)	(12,610)
	Fund Revenue Services Billing System	(639)	(985)				(194)	(661)	(145)				(1,985)
	Total Proposed Contributions (Withdrawals)	(799)	(25,343)	(12,624)	(12,667)	(2,021)	4,034	(1,833)	3,697	3,616	5,276	72	(37,793)
TOTAL RESERVE FUND BALANCE AT YEAR-END		87,226	61,883	49,260	36,592	34,571	38,606	36,773	40,469	44,085	49,362	49,434	

Appendix 6 - Continued
2013 Reserve / Reserve Fund Review
(In \$000s)

Reserve/Reserve Fund Review - Program Specific

Reserve / Reserve Fund Name	Project / SubProject Name and Number	Projected Balance as of December 31, 2012	Proposed Cash Flows \$000s										2013 - 2022 Total
			2013 Rec. Budget	2014 Plan	2015 Plan	2016 Plan	2017 Plan	2018 Plan	2019 Plan	2020 Plan	2021 Plan	2022 Plan	
XR1408 Green Lane Reserve Fund	Beginning Balance (Jan. 1)	12,149	16,084	14,117	13,092	6,303	6,059	6,059	6,059	6,059	5,748	5,748	16,084
	Contributions / (Withdrawals)	3,936	2,460	2,456	2,462								7,378
	Engineering and Monitoring-2011			(260)	(130)								(390)
	Cell Excavation & Base Construction-2011		(4,427)										(4,427)
	Leachate Control System 2013-2022			(256)	(1,318)								(1,574)
	Site Services/Final Cover/Storm Control 2013-2022			(978)	(1,039)	(244)							(2,261)
	Cell Excavation & Base Construction 2013-2022			(1,987)	(6,764)					(311)			(9,062)
	Total Proposed Contributions / (Withdrawals)	3,936	(1,967)	(1,025)	(6,789)	(244)				(311)			(10,336)
TOTAL RESERVE FUND BALANCE AT YEAR-END		16,084	14,117	13,092	6,303	6,059	6,059	6,059	6,059	5,748	5,748	5,748	5,748