



# **Solid Waste Management Services**

**Staff Recommended 2020 Operating Budget  
2020 – 2029 Capital Budget & Plan**

**Budget Briefing to Budget Committee  
November 15, 2019**

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Overview and Highlights

2020 Staff Recommended Operating Budget and Plan

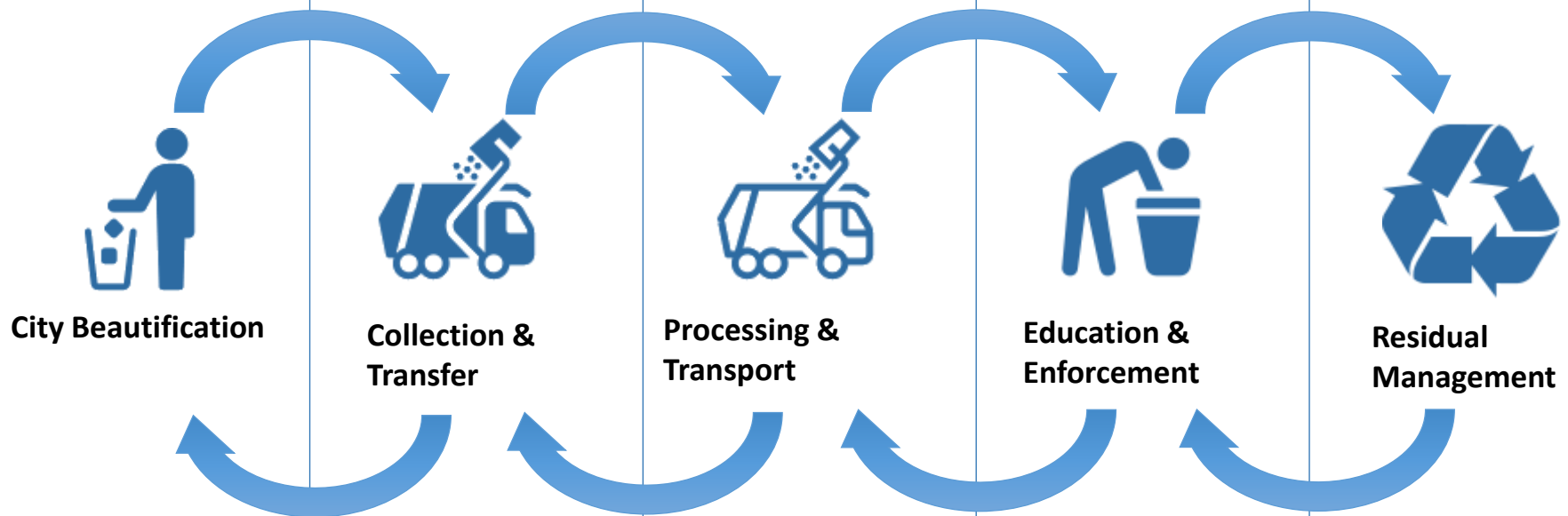
2020 – 2029 Staff Recommended Capital Budget and Plan

Rate Changes

# Overview and Highlights

Solid Waste Management Services (SWMS) is an Integrated System and is responsible for:

## Integrated Waste Management System



SWMS manages 7 Transfer Stations, 2 Organics Processing Facility with one under expansion, 3 Collection Yards and 1 Litter Collection Yard, Green Lane Landfill + 160 Closed Landfills, 1.5 million residential bins and operates approximately 750 vehicles and pieces of equipment with an asset value of \$700M .

## After Raptors Parade / After SWM



## Parks and Curbside Collection





# Solid Waste Management Services – How It’s Done

**Litter Management**



**Collections**



**Transfer Stations**



**Haulage**



**Open and Closed Landfill Mgmt.**



**Recycling Processing**



**Recycling Marketing**



**Organics Processing in Anaerobic Digesters**



**Renewable Natural Gas Development**



**Special Waste Handling**



**Community Outreach**



**Policy & Research**



**Customer Experience**



**Circular Economy**



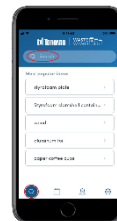
**Asset Mgmt. & Capital Delivery**



**Facility Maintenance**



**Technology / Smart City**



**Innovation**



**Education**



**Business Services**








# Solid Waste Management Services - Highlights

- Completed an organizational realignment
- New Safety Strategy and Program Initiated
- Negotiated contracts for D2 collections, Disco Org. Processing Facility and haulage
- Commissioned Disco Road Org. Processing Facility
- Initiated construction of the Dufferin RNG Facility
- Installed electric charging stations at 4 locations
- Constructed third CNG Fill Station at Ingram Yard
- Completed Green Bin rollout at dog-off leash parks
- Developing a Single-Use and Takeaway Items Reduction Strategy
- Received Various Awards:
  - 3 Municipal Waste Association Awards – Gold for the Community Reduce and Reuse Programs, Silver for the Jack Armstrong “Get that Garbage Outta Here” campaign and the TOWaste app.
  - 2019 Circulars Award Runner Up



Outcomes	Description
<p><b>Safely &amp; efficiently collect materials from 875,000+ homes, businesses and public spaces.</b></p>	<p>To deliver this outcome, Staff:</p> <ul style="list-style-type: none"> <li>▪ Ensure collection fleet has industry leading telematics and safety solutions.</li> <li>▪ Enhance capacity for operator training and reporting.</li> <li>▪ Attract and retain talented and experienced staff.</li> </ul>
<p><b>Manage 900,000+ tonnes of material in an environmentally and fiscally sustainable manner.</b></p>	<p>To deliver this outcome, Staff:</p> <ul style="list-style-type: none"> <li>▪ Effectively manage contracts to ensure value for money.</li> <li>▪ Develop programs to eliminate / reduce materials entering the waste stream.</li> <li>▪ Ensure compliance on Environmental Certificates of Approvals.</li> <li>▪ Maintain a sustainable rate model to fund asset replacement and growth.</li> <li>▪ Build and invest in infrastructure to mitigate Greenhouse Gas impact from operations and advance climate change resiliency.</li> </ul>
<p><b>Maximize resources and asset value.</b></p>	<p>To deliver this outcome, Staff:</p> <ul style="list-style-type: none"> <li>▪ Maintain a robust asset management program for Divisional assets.</li> <li>▪ Study and implement optimization and efficiency measures.</li> <li>▪ Advance capital projects that generate value from resources (third AD facility and RNG).</li> </ul>



	<p><b>Extended Producer Responsibility</b> <b>Evolving Packaging</b></p>
	<p><b>Sustainable Utility Rate</b> <b>Organics Processing Capacity</b></p>
	<p><b>Provincial Landfill Capacity Constraints</b></p>
	<p><b>Health &amp; Safety</b></p>
	<p><b>Climate Change Resiliency</b></p>



## Extended Producer Responsibility (EPR)

Unknown regulatory landscape and planned transition to Full EPR between 2023-2025.

- Secure external expertise to assist the EPR Transition Team to analyze, develop, and execute the Council approved transition strategy.
- Potential savings of \$15 million incorporated starting in 2023 subject to final regulations.
- Extend new/existing contracts to better align service provisions with anticipated EPR Transition date(s).

## Evolving Packaging

Potential Federal / Provincial regulations and industry trends will impact contamination levels, collections, processing and disposal operations.

- Advance the single-use reduction strategy.
- Develop and implement a Divisional contamination reduction strategy.
- Work with industry and packaging producers to fund research (Adapt Policy).
- Robust communications and outreach program.



## Organics Processing Capacity

Limited regional capacity to manage existing system tonnes, volume and population growth, contingency requirements for existing sites and potential Provincial regulations.

- Initiate the development of the third Anaerobic Digestion (AD) Facility and accelerate construction from 2036 to 2024 with anticipated commissioning in 2028.
- Ongoing engagement with Province on potential organics landfill ban and the impacts to processors.

## Sustainable Utility Rate

Program and reserves ability to fund current infrastructure investments and future requirements such as a new or expanded landfill.

- Recommend rate model that minimizes structural capital funding gap over the 10 year plan.
- Rates are projected to increase in 2023 if the \$15 million EPR efficiencies will not be realized.
- Move to cost recovery for Transfer Station tip fees starting with a 25% increase in 2020.



## Provincial Landfill Capacity Constraints

Long-term availability of landfill space within Ontario is limited. With population and economic growth in Toronto additional disposal options are needed.

- Re-negotiate landfill operations contract.
- Limit use of transfer stations to residents and businesses in Toronto.
- Work to identify and secure alternative landfill capacity.
- Study long term disposal options such as landfill capacity development and energy from waste.



## Health & Safety

Continued safety of staff, residents and visitors.

- Implement Vision Zero recommendations to install telematics solutions on collection fleet.
- Staff the newly created Health & Safety Unit to provide oversight and compliance activities.



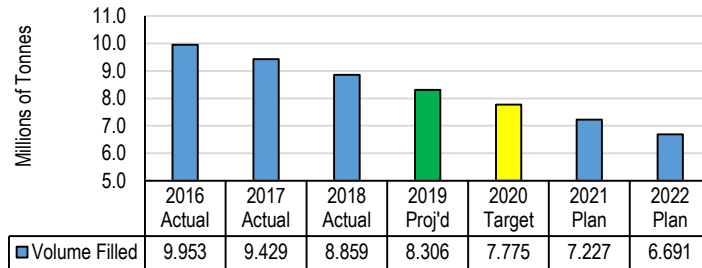
## Climate Change Resiliency

Evolving Federal and Provincial policies on carbon pricing and ability to mitigate Greenhouse Gas output.

- Accelerate the construction of the third Anaerobic Digestion (AD) Facility.
- Plan for the development of Renewable Natural Gas (RNG) processing infrastructure.
- Use or sell RNG and its associated environmental attributes.

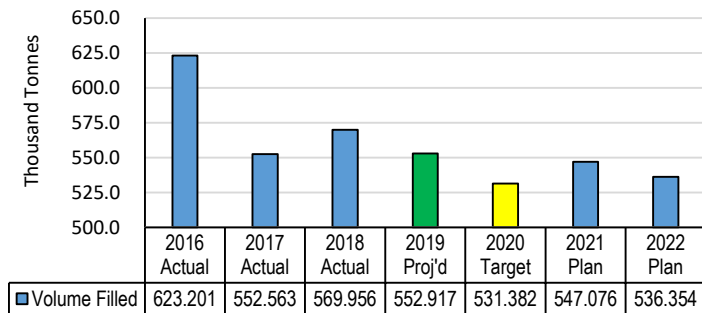


## Green Lane Landfill Volume Remaining

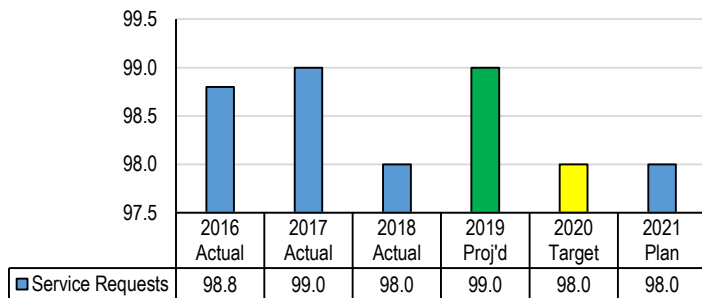


~15 years remaining based on current tonnage volume

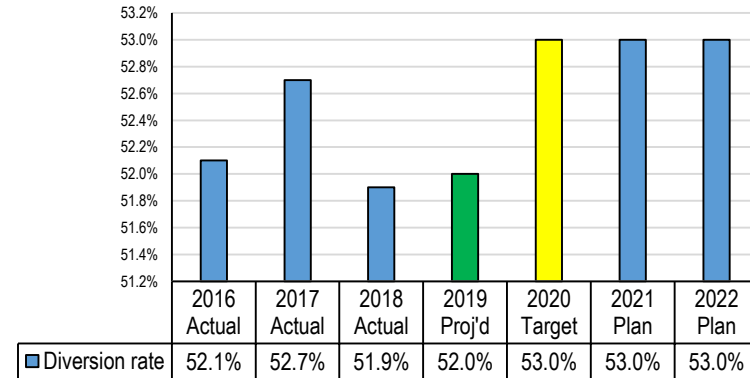
## Landfill Volume Filled per Year



## Litter Service Requests Completed within Service Standard



## Residential Diversion Rate (%)



Long Term Waste Mgmt. Strategy has a 70% diversion target by 2026. This will not be achieved due to:

- Light weighting of materials (e.g. plastic vs glass jars).
- Divisional focus on Reduce and Reuse, then Recycle.
- Volume is not available in the current garbage stream.

Diversion is one of many measures that should be reviewed for program progress.

More measures will be developed and used to show a well rounded review of overall program impact.

# **2020 Staff Recommended Operating Budget and Plan**

# 2020 Staff Recommended Total Operating Budget - Includes New & Enhanced

(In \$000s)	2017 Actual	2018 Actual	2019	2019	2020 Budget Request	Change v. 2019 Projected Actual	
			Approved Budget	Projected Actual**		\$	%
By Service			\$		\$	\$	%
<b>Revenues</b>							
City Beautification	1,372.8	1,616.4	1,802.2	1,791.8	1,564.9	(226.9)	(12.7%)
Residual Management*	5,135.4	5,147.2	4,339.7	4,314.5	8,843.3	4,528.8	105.0%
Solid Waste Collection & Transfer	287,475.3	299,086.4	312,930.8	311,110.8	322,156.9	11,046.1	3.6%
Solid Waste Education & Enforcement	8.2	83.2	4.2	4.1	3.5	(0.6)	(15.4%)
Solid Waste Processing & Transport	55,390.7	47,479.0	50,446.2	50,152.8	46,335.3	(3,817.5)	(7.6%)
<b>Total Revenues</b>	<b>349,382.4</b>	<b>353,412.2</b>	<b>369,523.1</b>	<b>367,373.9</b>	<b>378,903.9</b>	<b>11,529.9</b>	<b>3.1%</b>
<b>Expenses</b>							
City Beautification	35,937.6	34,528.5	36,916.1	36,528.3	38,123.1	1,594.8	4.4%
Residual Management*	34,257.5	37,371.9	36,576.3	36,192.0	39,562.3	3,370.3	9.3%
Solid Waste Collection & Transfer	99,126.6	108,288.1	126,017.3	124,693.2	126,904.9	2,211.6	1.8%
Solid Waste Education & Enforcement	4,471.7	4,711.5	5,525.3	5,467.3	5,655.2	188.0	3.4%
Solid Waste Processing & Transport	159,501.4	152,449.1	144,898.5	143,376.1	149,858.1	6,482.0	4.5%
Subtotal Gross Expenditure	333,294.8	337,349.2	349,933.6	346,256.9	360,103.6	13,846.7	4.0%
Capital Contribution	16,087.7	16,063.1	19,589.5	21,117.0	18,800.2	(2,316.8)	(11.0%)
<b>Total Gross Expenditures</b>	<b>349,382.4</b>	<b>353,412.2</b>	<b>369,523.1</b>	<b>367,373.9</b>	<b>378,903.9</b>	<b>11,529.9</b>	<b>3.1%</b>
<b>Approved Positions</b>	<b>1,113.7</b>	<b>1,116.6</b>	<b>1,122.8</b>	<b>1,122.8</b>	<b>1,128.3</b>	<b>5.5</b>	<b>0.5%</b>

# Key Cost Drivers – Base Budget

Key Cost Drivers	2018 Actuals	2019 Proj. Actuals**	2020 Base Budget Submission	YoY Changes		Key Drivers to Preserve Service Levels and Address Issues
				\$	%	
<b>Expenditures</b>						
1 Salaries and Benefits	93,729.0	95,736.6	101,587.3	5,850.8	6.1%	Net 3.5 FTE added to 2020 budget and annulization of 2019 vacancies.
2 Materials & Supplies	5,678.5	8,221.8	8,799.4	577.6	7.0%	Inflationary increase and new hydro accounts added.
3 Equipment	254.6	254.2	226.6	(27.5)	-10.8%	Minor variance
4 Service and Rent	138,138.6	146,632.7	149,591.1	2,958.4	2.0%	Organic processing cost increased by \$1.8M due to higher volumes and 2.5% CPI and recycling cost increased by \$1.4M due to higher contamination rate of 30% and 2.5% CPI.
5 Contribution To Reserves	59,978.7	54,743.8	56,190.0	1,446.1	2.6%	Increase in debt reserve contribution.
6 Other Expenditures (Inc. IDC's)*	39,529.3	40,667.8	40,907.5	239.7	0.6%	Inflationary & other increase in IDC.
<b>Sub-total Gross Expenditures</b>	<b>337,308.7</b>	<b>346,256.9</b>	<b>357,301.9</b>	<b>11,045.0</b>	<b>3.2%</b>	
Capital Contribution	16,103.5	21,117.0	18,800.2	(2,316.8)	-11.0%	
<b>Total Expenditure</b>	<b>353,412.2</b>	<b>367,373.9</b>	<b>376,102.1</b>	<b>8,728.2</b>	<b>2.4%</b>	
<b>Revenues</b>						
1 Provincial Subsidies	24,311.2	26,073.2	26,807.4	734.1	2.8%	Marginal increase in blue box funding.
2 User Fees & Donations	301,356.8	313,928.8	321,052.8	7,124.0	2.3%	Recommended 2.45% blended rate increase (Single Family & RUAC 2.5%, Multi-res 1.5%, Oversize, commercial & other 6.0%) and 25% Tipping fee.
3 Transfers From Capital	3,198.1	3,973.4	5,299.2	1,325.8	33.4%	Recovery of salaries and benefits from capital based on 2020 capital plan.
4 Other Revenues (Inc. IDR's)*	24,546.1	23,398.4	22,942.6	(455.8)	-1.9%	Revenue from sale of recyclables and scraps decreased by \$0.4M, contaminated lift revenue decreased by \$0.5M offset by increase in IDRs due to rate increase \$0.5M.
<b>Total Revenues</b>	<b>353,412.2</b>	<b>367,373.9</b>	<b>376,102.1</b>	<b>8,728.2</b>	<b>2.4%</b>	
<b>Positions</b>	<b>1,116.6</b>	<b>1,122.8</b>	<b>1,126.3</b>	<b>3.5</b>	<b>0.3%</b>	



# Key Cost Drivers – New / Enhanced

New / Enhanced Request	2020				2021 Annualized Gross	Equity Impact	Supports Key Issue / Challenge
	Revenue	Gross	Net	Positions			
<b>In \$ Thousands</b>							
1 New RNG operations	2,500.0	2,500.0				None	Climate Change Resiliency
2 Climate Change initiative	301.8	301.8		2.0		None	Climate Change Resiliency
<b>Total New / Enhanced</b>	<b>2,801.8</b>	<b>2,801.8</b>		<b>2.0</b>			

Net (In \$000s)	2019 Projected Actual	2020 Staff Rec'd Budget	2021 Outlook	2022 Outlook
	\$	\$	\$	\$
Revenues	367,373.9	378,903.9	388,314.0	398,714.5
Gross Expenditures	346,256.9	360,103.6	372,589.3	379,906.2
<b>Capital Contribution</b>	<b>21,117.0</b>	<b>18,800.2</b>	<b>15,724.8</b>	<b>18,808.3</b>
<b>Future recoverable debt issuance and COLA</b>		1,736.3	2,654.4	9,269.1
<b>Net Capital Contribution</b>		<b>17,063.9</b>	<b>13,070.4</b>	<b>9,539.1</b>
<b>Total Approved Positions</b>	<b>1,062.8</b>	<b>1,128.3</b>	<b>1,128.3</b>	<b>1,128.3</b>

	2021 Drivers	2022 Drivers
<b>Salaries &amp; Benefits:</b>	\$1.8M	\$1.8M
<b>Inflation Impact:</b>	\$7.0 M, related to collections, processing (Dufferin operational) and landfill disposal contacts (2.5% inflation) & debt payments.	Inflation impact: \$3.5 M, related to collections, processing and landfill disposal contacts (2.5% inflation) & debt payments.
<b>Reserve Contribution:</b>	Reserve Contribution: \$3.3 M for State of Good Repair & Legislative Requirements.	Reserve Contribution: \$1.5 M for State of Good Repair & Legislative Requirements.

# **2020 – 2029**

# **Staff Recommended**

# **Capital Budget and Plan**

OUTCOME	PRIORITY ACTIONS
<p><b>Safely &amp; efficiently collect materials from 875,000+ homes, businesses and public spaces.</b></p>	<ul style="list-style-type: none"> <li>• Implement Council’s direction on installing fleet telematics to support of Vision Zero.</li> <li>• Complete state of good repair projects at Landfills, Transfer Stations and Yards.</li> <li>• Address all health and safety as well as legislative requirements within our capital program.</li> </ul>
<p><b>Manage 900,000+ tonnes of material in an environmentally and fiscally sustainable manner</b></p>	<ul style="list-style-type: none"> <li>• Plan, build and commission the 3<sup>rd</sup> AD.</li> <li>• Develop and invest in RNG facilities.</li> <li>• Continue to purchase CNG/RNG trucks.</li> <li>• Investigate efficacy of Mixed Waste Processing.</li> </ul>
<p><b>Maximize resources and asset value.</b></p>	<ul style="list-style-type: none"> <li>• Plan, build and commission the 3<sup>rd</sup> AD.</li> <li>• Develop and invest in RNG facilities.</li> <li>• Optimize transfer station network.</li> </ul>



## Organics Processing Capacity

- Facility is required prior to a Mixed Waste Processing Facility due to overall system risk, changing policy landscape, increased volume of organics, population growth and limited regional processing capacity.
- Timing risk relates to potential project siting challenges.
- Potential issues managing evolving packaging and changing Federal / Provincial regulations.

## Sustainable Rate Model

- Previous budgets did not include the necessary rate adjustments to fund the:
  - existing capital program including state of good repair and legislative requirements,
  - expanded capital program as approved within the Long Term Solid Waste Management Strategy,
  - reserve balances to develop a new landfill, expand the Green Lane landfill, or develop an energy from waste facility,
- Mixed Waste Processing Facility outlined within the Long Term Waste Management Strategy is not funded (\$310M). Staff will return to Council in 2020 to seek project direction.

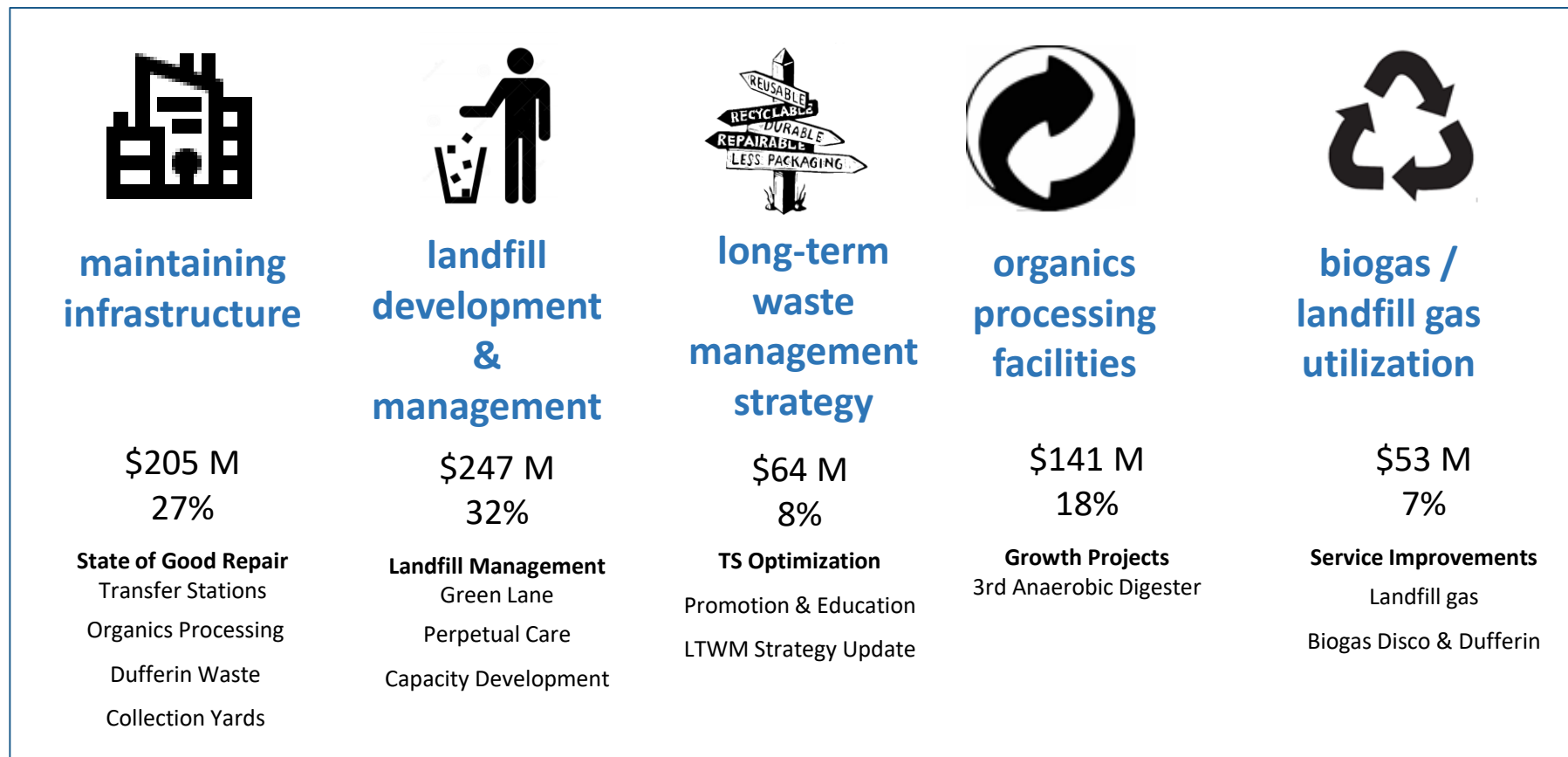
## Climate Change Resiliency

- Facilities will reduce GHG emissions and will provide revenue to offset operating and capital costs.
  - RNG pricing risk with evolving Federal and Provincial strategies may impact cost / benefit analysis and potential project timing.
  - Partnerships and collaboration with First Nations and local communities critical for regulatory approvals.

## Asset Value – \$694.026 Million

- 7 Transfer Stations - \$252.594 Million
- 2 Organics Processing Facilities - \$91.413 Million
  - With one under expansion
- 3 Collection Yards and 1 Litter Collection Yard - \$36.817 Million
- Green Lane Landfill + 160 Closed Landfills - \$17.785 Million
- 1.5 million residential bins - \$126.588 Million
- 741 vehicles and pieces of equipment - \$168.829 Million

## \$768.1 M 10 YEAR GROSS CAPITAL PROGRAM EXPENDITURES



## \$768.1 M 10 YEAR GROSS CAPITAL PROGRAM EXPENDITURES



**City of  
Toronto**

\$768.111 M  
100%

Recoverable Debt      \$358.6 M  
Reserve Draws          \$409.5 M



**Ontario**

**Province of  
Ontario**

\$0.000M  
0%

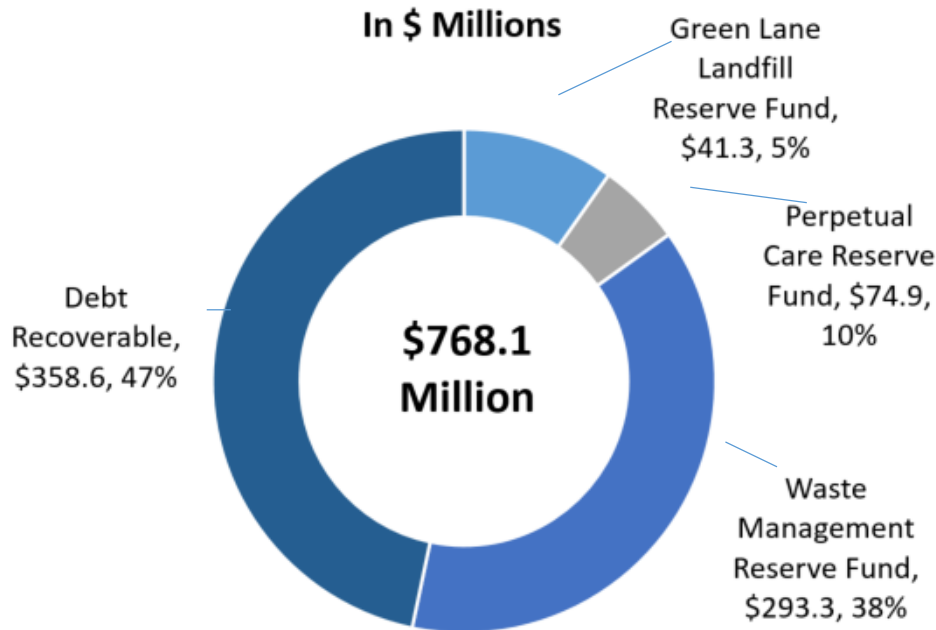
**Canada**

**Government  
of Canada**

\$0.000 M  
0%

## Where Funding is From

2020-2029 Capital Budget

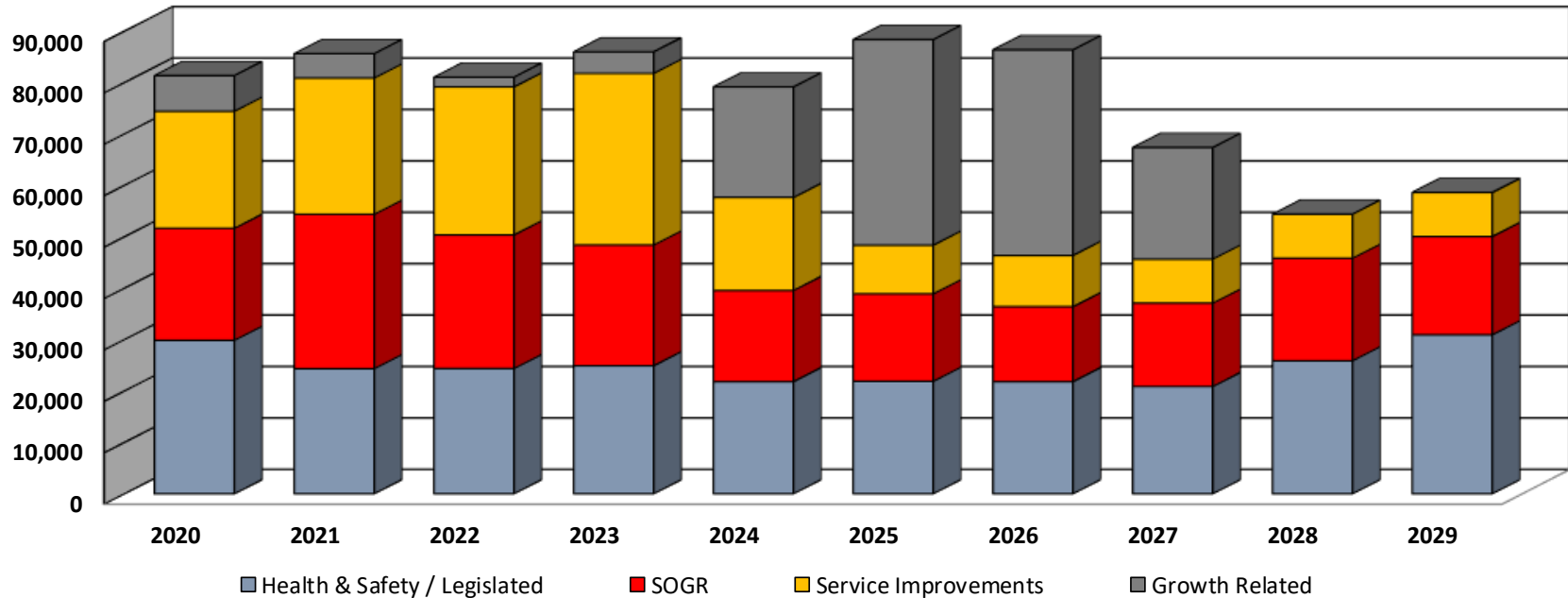


## How Funding Is Invested

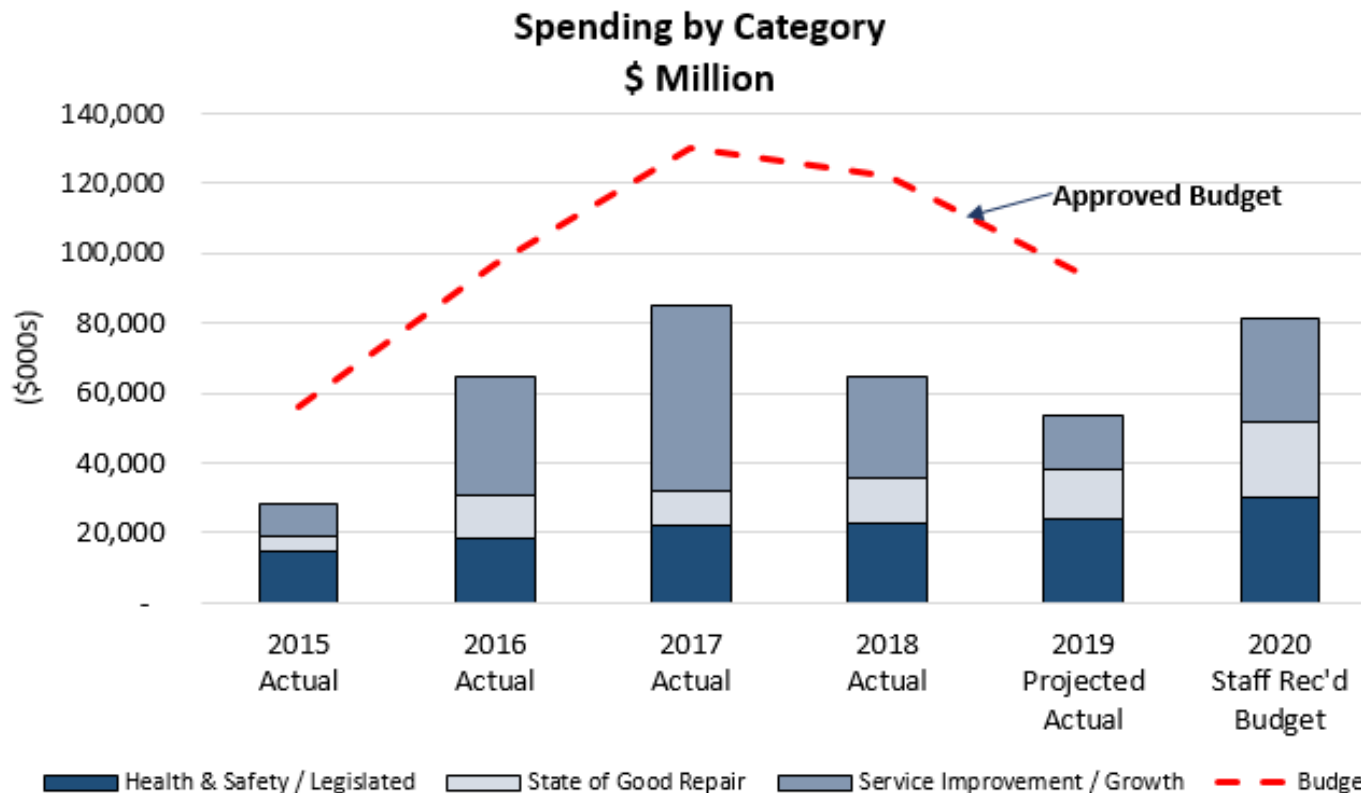
- 32% (\$246.5 M) is allocated to Legislated projects with focus on cell excavation, gas control monitoring and leachate control at the Green Lane Landfill Site
- 27% (\$205.9 M) is for State of Good Repair( SOGR) projects focusing on maintaining 4 Collection Yards, 7 Transfer Stations & Disco and Dufferin Organics facilities
- 23% (\$174.7 M) is for various Service Improvements including the implementation of reduction & reuse programs, RNG development
- 18% (\$141.0 M) which is primarily for the construction of a 3<sup>rd</sup> Organics Processing Facility

# 2020 – 2029 Capital Program Breakdown

2020 - 2029 Staff Recommended Capital Budget and Plan by Category



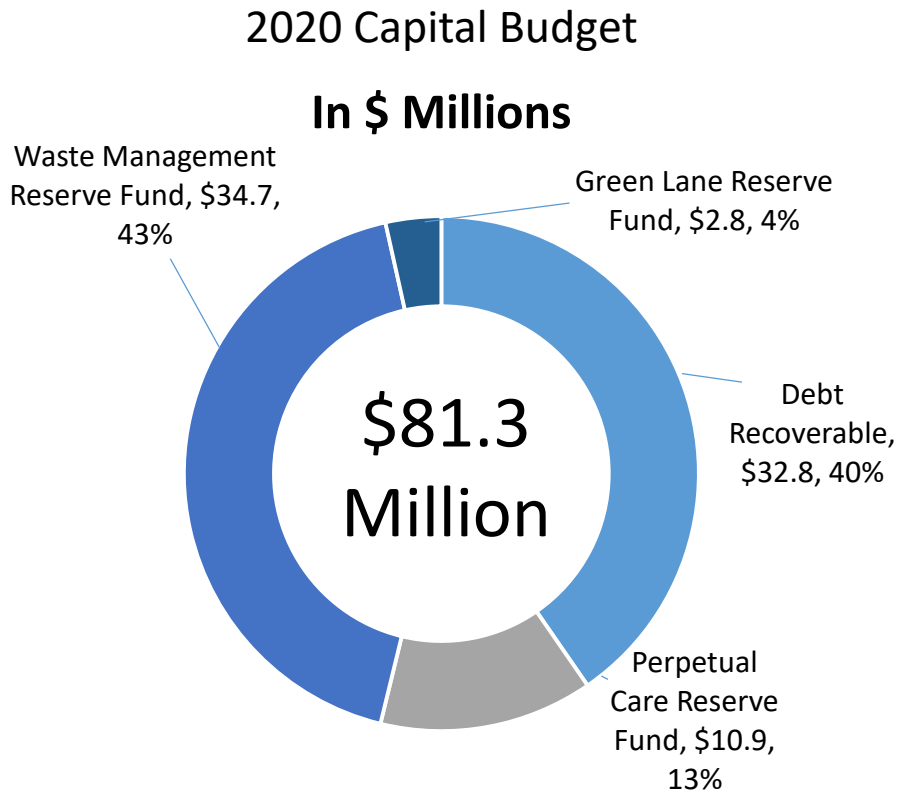
2020 - 2029 Staff Recommended Capital Budget and Plan by Category											
\$ Millions	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total
Health & Safety / Legislated	29.8	24.3	24.4	24.9	21.8	21.9	21.8	20.9	25.9	30.9	246.5
SOGR	21.8	30.0	26.0	23.5	17.7	17.0	14.6	16.2	20.0	19.1	205.9
Service Improvements	22.8	26.5	28.8	33.4	18.1	9.5	10.0	8.6	8.6	8.6	174.7
Growth Related	6.9	4.7	1.9	4.2	21.5	40.0	40.0	21.7			141.0
<b>Total</b>	<b>81.3</b>	<b>85.6</b>	<b>81.0</b>	<b>86.0</b>	<b>79.1</b>	<b>88.4</b>	<b>86.4</b>	<b>67.4</b>	<b>54.4</b>	<b>58.6</b>	<b>768.1</b>



In \$ Millions	2015 Actual	2016 Actual	2017 Actual	2018 Actual	2019 Projected Actual	2020 Staff Rec'd Budget
Health & Safety / Legislated	14,932	18,510	22,115	22,390	23,793	29,847
State of Good Repair	4,076	11,974	10,025	13,342	14,300	21,800
Service Improvement / Growth	9,392	34,035	52,729	28,692	15,371	29,689
<b>Total</b>	<b>28,400</b>	<b>64,519</b>	<b>84,869</b>	<b>64,424</b>	<b>53,464</b>	<b>81,335</b>
<b>% Spent</b>	<b>51%</b>	<b>67%</b>	<b>65%</b>	<b>53%</b>	<b>57%</b>	



## Where the Money Comes From



## What This Funds

- 37% (\$29.8 M) is allocated to Legislated projects which includes Green Lane Landfill Site projects
- 28% (\$22.8 M) is allocated to Service Improvement Projects which includes land Fill Gas Utilization projects
- Remaining 35% is for State of Good Repair (\$21.8 M) to maintain existing assets and Growth Relate (\$6.930 M) which includes the start of the new 3<sup>rd</sup> Organics Facility

## Projects

3<sup>rd</sup> Anaerobic Digester (AD)

Renewable Natural Gas Conversion at AD Facilities - Dufferin, Disco, 3<sup>rd</sup> AD

Landfill Gas to Renewable Natural Gas

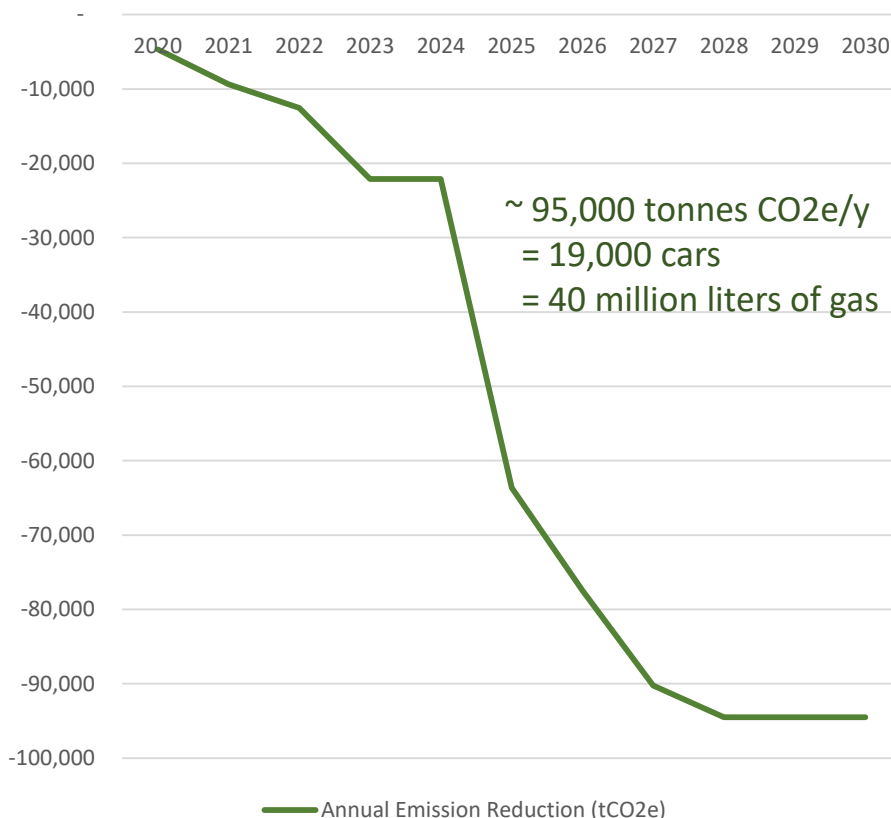
## GHG Reduction Targets

Conservative estimate of 95,000 tonnes CO<sub>2</sub>e per year

~25% of the TransformTO 2030 GHG Reduction Target

~15% of the TransformTO 2050 GHG Reduction Target

## Emissions Reduction (tonnes CO<sub>2</sub>/e)



- **Fully funded with recommended budget framework.**

# 2020 Recommended Rate Changes

## Single Family Residential - Recommended 2.5% Rate Increase in 2020

Customer Group	2019			2020			Net Change		
	Rate	Rebate	Cost	Rate	Rebate	Cost	Rate	Rebate	Cost
Single Family Residential, small bin	\$259.75	\$160.04	\$99.71	\$266.24	\$80.59	\$185.65	\$6.49	(\$79.45)	\$85.94
Single Family Residential, medium bin	\$315.32	\$73.69	\$241.63	\$323.20		\$323.20	\$7.88	(\$73.69)	\$81.57
Single Family Residential, large bin	\$428.25		\$428.25	\$438.96		\$438.96	\$10.71	\$0.00	\$10.71
Single Family Residential, XL bin	\$496.73		\$496.73	\$509.15		\$509.15	\$12.42	\$0.00	\$12.42
Single Family Residential - Bag Only	\$166.28		\$166.28	\$170.44		\$170.44	\$4.16	\$0.00	\$4.16

## Multi Residential - Recommended 1.5% Rate Increase in 2020

Customer Group	2019			2020			Net Change		
	Rate	Rebate	Cost	Rate	Rebate	Cost	Rate	Rebate	Cost
Multi Residential - Front End	\$215.37	\$185.00	\$30.37	\$218.60	\$185.00	\$33.60	\$3.23	\$0.00	\$3.23
Multi Residential - Curb-Side	\$215.37	\$185.00	\$30.37	\$218.60	\$185.00	\$33.60	\$3.23	\$0.00	\$3.23

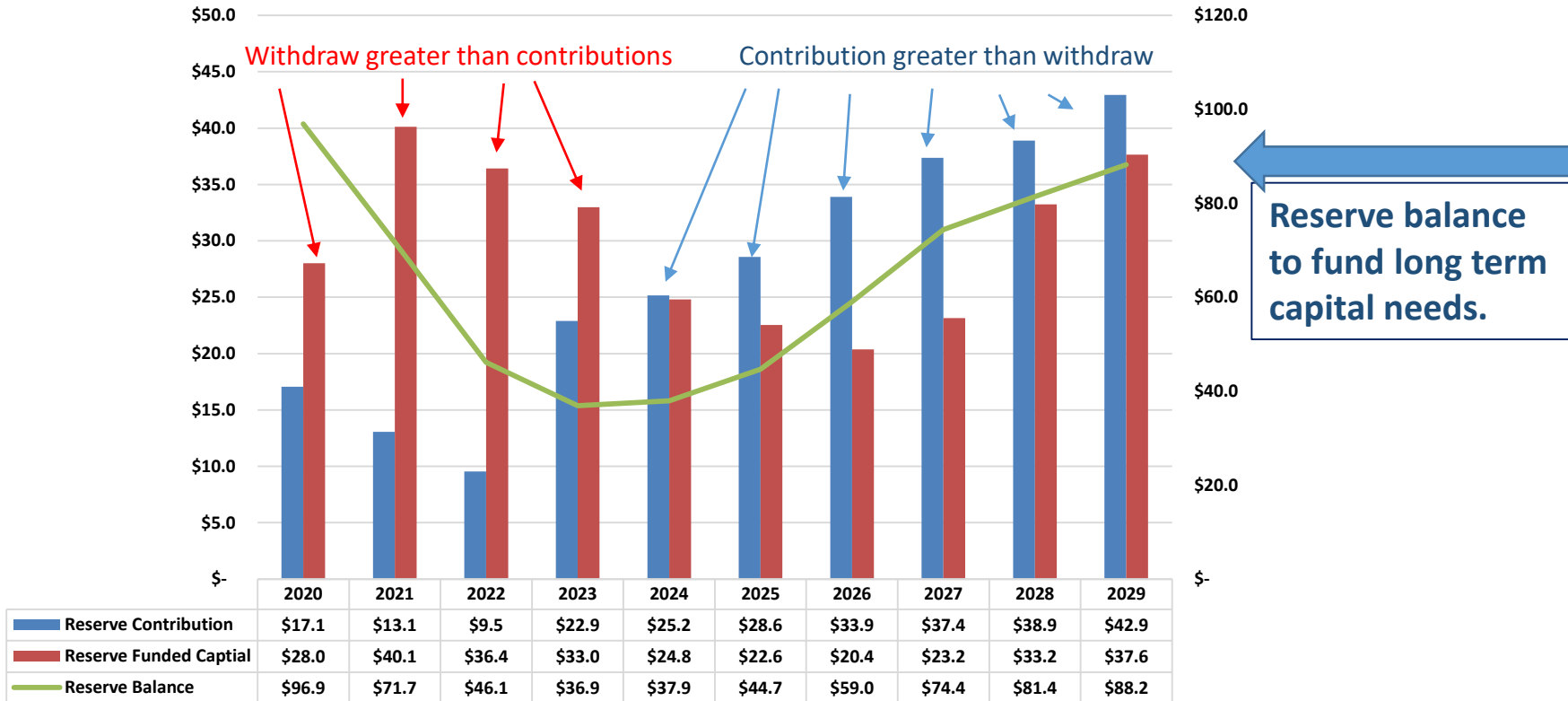
Customer type	Approved	2.45% to 3.00% Blended Rate Increase by Category									
	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Multi Residential	1.00%	1.50%	1.75%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Single Family & RUAC	2.00%	2.50%	2.75%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Commercial and others	5.20%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%
Oversized - all customers		6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%
<b>Blended Rate</b>	<b>2.20%</b>	<b>2.45%</b>	<b>2.70%</b>	<b>3.00%</b>	<b>3.00%</b>	<b>3.00%</b>	<b>3.00%</b>	<b>3.00%</b>	<b>3.00%</b>	<b>3.00%</b>	<b>3.00%</b>

**2020 Rate budget and projections are based on:**

- EPR being implemented by the Province in 2023.
- Toronto receiving additional stewardship funding for blue box materials in 2023.
- The financial contribution amounts to \$15 million in funding / savings.

**If EPR is not implemented or Toronto is transitioned in late the rate will be required to increase approximately 1% each year starting 2023.**

## Capital Funding and Reserve Balances (\$Million)





## Unfunded Major Capital Projects within the current 15 year window

- **New or Expanded Landfill**
  - Landfill projected to be full between 2035-37
  - Existing timeframe could be extended by using alternate sites and limiting transfer station use to City collected materials only
  - It is a 10 – 15 year process to site a new landfill
  - Research funding has been included in the 2020 budget
- **Mixed Waste Processing Facility**
  - Approved in the 2016 Long Term Waste Management Strategy
  - Estimated capital cost \$310 million
  - No funding source identified or approved
  - Staff are currently studying the projects efficacy and will update Council in 2020

## SWM must develop a 15 – 20 year rate model strategy to ensure:

- All required capital projects are outlined
- Projects and cost estimates are communicated to Council and Rate Payer's
- Projects can be adequately and sustainably funded
- Rate Payer's fund services used

# Thank You

# Appendix 1: 10-year Capital Plan

	2020 Budget	2021 Plan	2022 Plan	2023 Plan	2024 Plan	2025 Plan	2026 Plan	2027 Plan	2028 Plan	2029 Plan	2020 - 2029 Total	Total Project Cost
<b>Total Expenditures by Category</b>												
<b>Legislated</b>												
<i>Green Lane Landfill</i>	18,931	13,414	14,805	15,573	14,815	14,815	14,815	14,815	14,815	14,815	151,613	97,782
<i>Perpetual Care Of Closed Landfills (New)</i>	10,000	7,300	7,320	7,327	6,997	7,047	6,997	6,047	6,047	6,095	71,177	44,546
<i>Perpetual Care Of Landfills</i>	916	2,603	226	-	-	-	-	-	-	-	3,745	43,482
<i>Landfill Capacity Development</i>	-	1,000	2,000	2,000	-	-	-	-	5,000	10,000	20,000	5,000
<b>Sub-Total</b>	<b>29,847</b>	<b>24,317</b>	<b>24,351</b>	<b>24,900</b>	<b>21,812</b>	<b>21,862</b>	<b>21,812</b>	<b>20,862</b>	<b>25,862</b>	<b>30,910</b>	<b>246,535</b>	<b>190,810</b>
<b>State of Good Repair</b>												
<i>Collection Yard Asset Management</i>	91	-	-	-	-	-	-	-	-	-	91	2,738
<i>Collection Yard Asset Management (New)</i>	2,243	1,894	1,008	689	608	613	600	600	820	840	9,915	6,960
<i>Diversion Facilities Asset Management</i>	2,123	-	-	-	-	-	-	-	-	-	2,123	2,878
<i>Dufferin Waste Facility Site Improvement</i>	1,967	10,028	8,005	5,500	-	-	-	-	-	-	25,500	26,000
<i>New Fleet</i>	177	-	-	-	-	-	-	-	-	-	177	550
<i>Organics Processing Facility Asset Mgmt</i>	2,273	3,866	4,574	3,582	4,250	4,399	1,908	3,117	6,627	5,400	39,996	29,831
<i>Renewable Natural Gas</i>	300	500	-	-	-	-	-	-	-	-	800	800
<i>Transfer Station Asset Management</i>	2,287	46	22	-	-	-	-	-	-	-	2,355	43,747
<i>Transfer Station Asset Management (New)</i>	10,339	13,698	12,379	13,710	12,877	12,004	12,065	12,498	12,504	12,887	124,961	130,921
<b>Sub-Total</b>	<b>21,800</b>	<b>30,032</b>	<b>25,988</b>	<b>23,481</b>	<b>17,735</b>	<b>17,016</b>	<b>14,573</b>	<b>16,215</b>	<b>19,951</b>	<b>19,127</b>	<b>205,918</b>	<b>244,425</b>
<b>Service Improvements</b>												
<i>Biogas Utilization</i>	1,300	1,000	-	-	-	-	-	-	-	-	2,300	17,632
<i>Collection Yard Asset Management</i>	5	-	-	-	-	-	-	-	-	-	5	1,100
<i>Diversion Systems Bins</i>	3,880	3,560	3,560	2,560	2,560	2,560	2,560	2,560	2,560	2,560	28,920	32,800
<i>Engineering Planning Studies</i>	1,274	572	430	1,294	500	500	500	500	500	500	6,570	7,813
<i>IT Corporate Initiatives</i>	4,101	3,300	1,500	-	-	-	-	-	-	-	8,901	15,602
<i>Landfill Gas Utilization</i>	1,500	5,000	15,000	20,000	8,500	-	-	-	-	-	50,000	67,120
<i>Long Term Waste Management Strategy</i>	5,742	8,514	7,406	9,036	6,036	5,917	6,417	5,000	5,000	5,000	64,068	63,361
<i>SWMIT Application Initiatives</i>	3,587	1,984	900	500	500	500	500	500	500	500	9,971	17,048
<i>Two-Way Radio Replacement</i>	50	50	-	-	-	-	-	-	-	-	100	2,875
<i>Fleet Technology Enhancements</i>	1,320	2,530	-	-	-	-	-	-	-	-	3,850	3,850
<b>Sub-Total</b>	<b>22,759</b>	<b>26,510</b>	<b>28,796</b>	<b>33,390</b>	<b>18,096</b>	<b>9,477</b>	<b>9,977</b>	<b>8,560</b>	<b>8,560</b>	<b>8,560</b>	<b>174,685</b>	<b>229,201</b>
<b>Growth Related</b>												
<i>DISCO SSO Facility</i>	130	-	-	-	-	-	-	-	-	-	130	84,743
<i>Dufferin SSO Facility</i>	6,600	4,244	-	-	-	-	-	-	-	-	10,844	82,543
<i>Organics Processing Facility</i>	200	500	1,890	4,184	21,500	40,000	40,000	21,726	-	-	130,000	130,000
<b>Sub-Total</b>	<b>6,930</b>	<b>4,744</b>	<b>1,890</b>	<b>4,184</b>	<b>21,500</b>	<b>40,000</b>	<b>40,000</b>	<b>21,726</b>	<b>-</b>	<b>-</b>	<b>140,974</b>	<b>297,286</b>
<b>Total Expenditures by Category (including carry forward)</b>	<b>81,335</b>	<b>85,603</b>	<b>81,025</b>	<b>85,955</b>	<b>79,143</b>	<b>88,355</b>	<b>86,362</b>	<b>67,363</b>	<b>54,373</b>	<b>58,597</b>	<b>768,111</b>	<b>961,723</b>

You are deciding which item to purchase that will impact the landfill the least. Decision also impacts system costs and the environment.

Same product different packaging.

Package 1

2 Units of Recyclable Paper

1 Unit of Garbage

66% Diversion



Performance Metric

Package 2

0.5 Unit of Garbage

0% Diversion



Desired Impact

- Less raw material
- Less to collect
- Less to process
- Less cost to system

Product design and using less material is reducing the weight of recycling which impacts the diversion rate.

- Glass jars have been replaced with lighter plastic.
- Concentrated products use less packaging than before.

Same product different packaging.

Package 1

2 Units of Recyclable Plastic  
1 Unit of Garbage

66% Diversion



Performance Metric

Package 2

1 Units of Recyclable Plastic  
1 Unit of Garbage

50% Diversion



Desired Impact

- Less raw material
- Less to collect
- Less to process
- Less cost to system

# 2020 Key Rate Changes

