



**Solid Waste
Management Services
2022 Operating Budget and
2022-2031 Capital Budget & Plan
Briefing to Budget Committee**

November 3, 2021



Solid Waste Management Services

**City
Beautification**



**Solid Waste
Collection & Transfer**



**Residual
Management**



**Solid Waste Education
& Enforcement**



**Solid Waste Processing
& Transport**



Solid Waste Management Services Outcomes

Solid Waste Management Services ensures that Torontonians live in a city where:

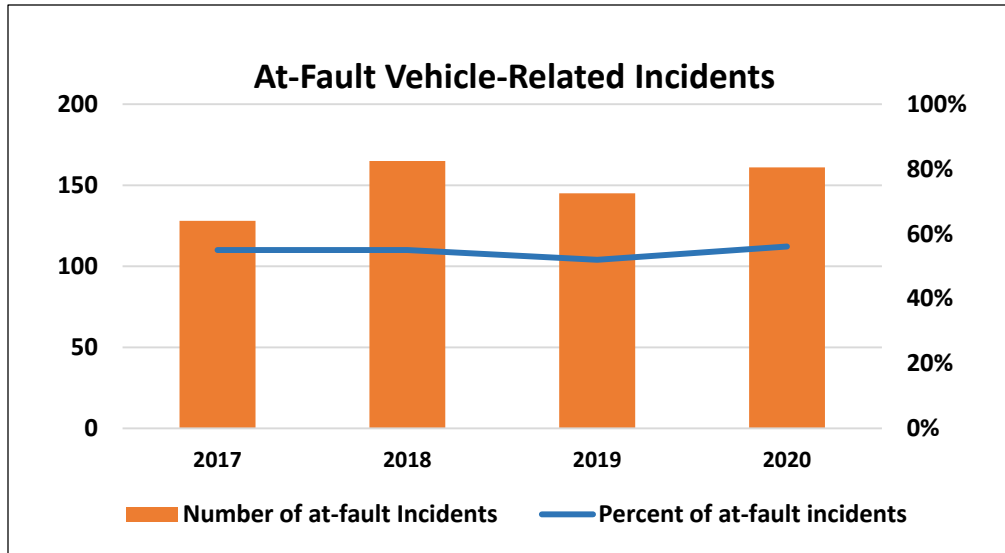


- waste is collected in a timely, safe, reliable and efficient manner

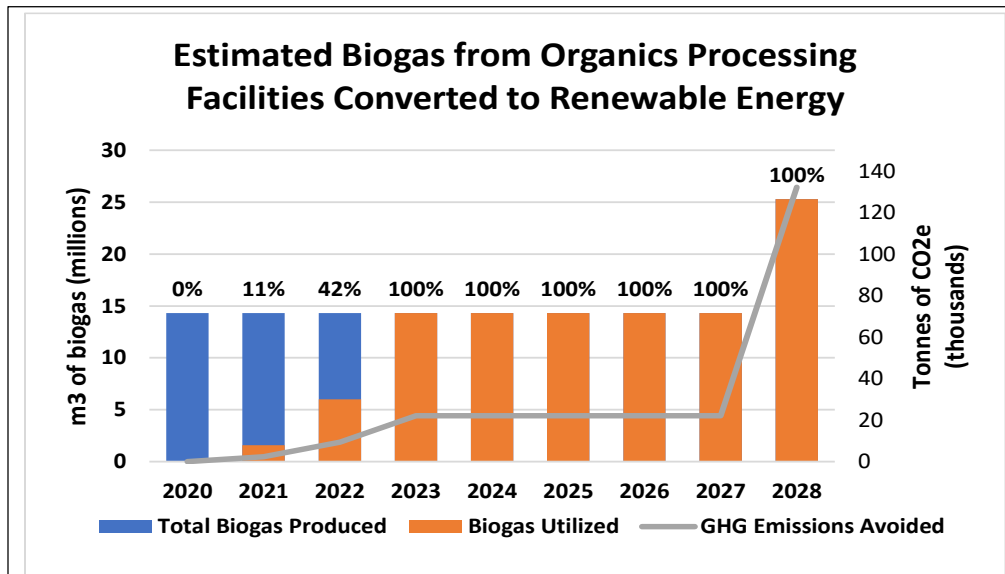


- waste is managed in an innovative, environmentally and fiscally sustainable manner

Outcome Measures

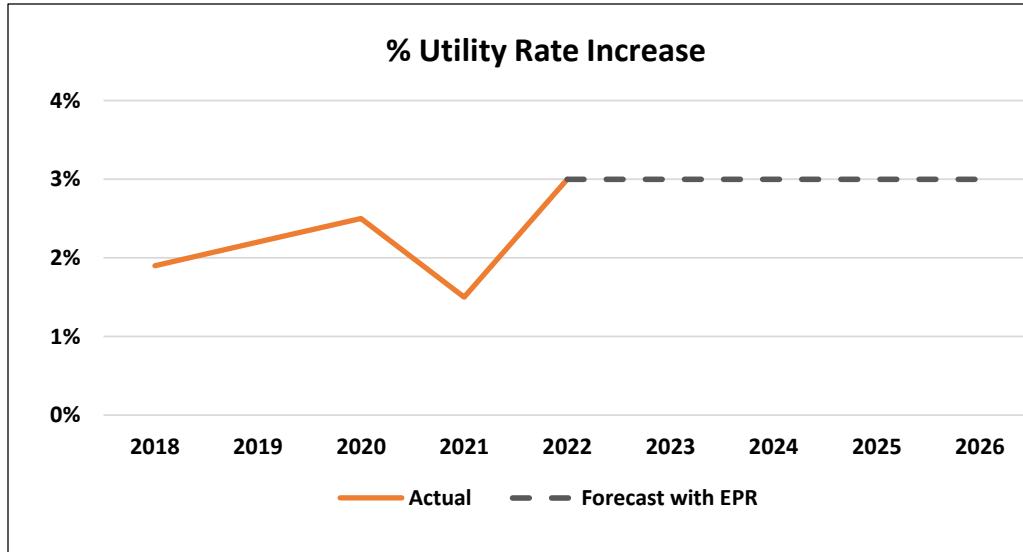


- Solid Waste Management Services is investing in staff, equipment and facilities to ensure staff and the public are safe on the road. These investments include:
 - Continued investment to outfit vehicles with safety equipment that supports Vision Zero including side guards, telematics and in cab cameras
 - 160 new staff trained at the Keele Valley Training Centre since it opened in mid 2020.
 - Introducing new Drive for Life training for all staff who operate any vehicle using simulation-based training with the objective of improving driver responses.

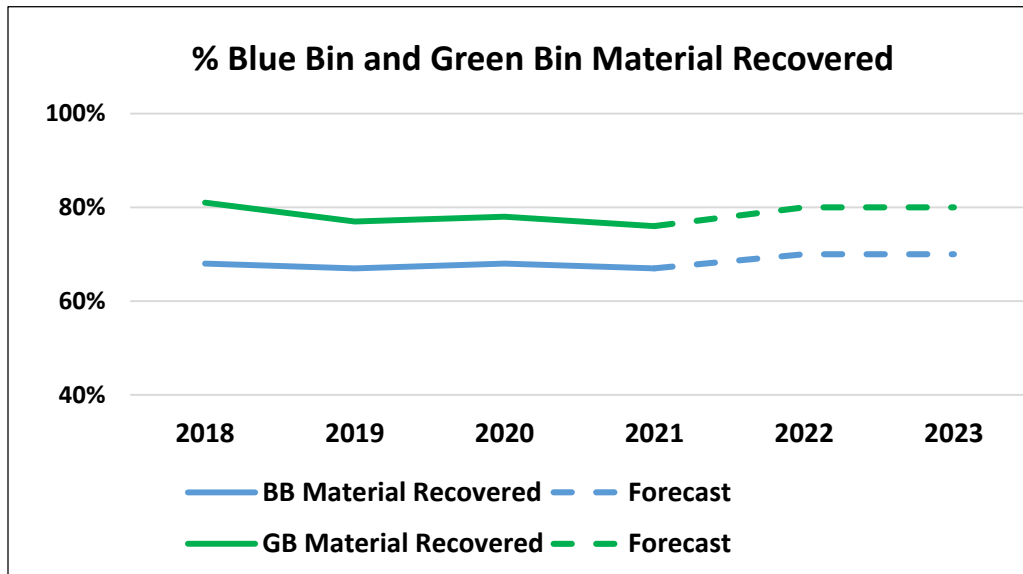


- Solid Waste Management Services’ renewable energy trajectory includes utilizing biogas from organics processing facilities. Dufferin’s renewable natural gas (RNG) will be used in 2022 and construction at the Disco Road facility will begin in 2022. RNG from a 3rd anaerobic digestion facility is anticipated to be produced in 2028.
- Through further capital investments, there is an opportunity to use landfill gas from Green Lane Landfill and Keele Valley Landfill to generate renewable energy. Solid Waste Management Services working to assess whether landfill gas can be harnessed to generate renewable energy and reduce GHG emissions. Staff are conducting studies to explore this potential.

Outcome Measures (cont'd)



- To ensure sufficient balances in reserve, 2022 reflects a 3% rate increase and continues year over year.
- The introduction of Extended Producer Responsibility (EPR) will help stabilize the rate. EPR will present some cost savings to the City as a result of the reduction in recyclable material that the City must process.
- If EPR is not fully implemented by 2024, Solid Waste Management Services will need to reassess the projected future annual rate increases to ensure service levels and funding for the 10-year Capital Budget and Plan are able to be sustained.



- Currently, Solid Waste Management Services recovers a majority of Blue Bin Recycling and Green Bin Organics material.
- To help reduce the amount of organics ending up in the garbage or recycling, Green Bins have been installed in all dogs off-leash areas in parks and a pilot project began to test the use of a dedicated compartment for dog waste in street litter bins. To reduce recycling contamination in parks, new recycling containers designed to exclusively capture empty beverage cans and bottles were installed in parks across the city.
- Throughout 2021 and into 2022 SWMS continues to communicate proper waste sorting practices through campaigns, outreach and education.

Service Level Measures

| Service | Service Measure | 2019 Actual | 2020 Actual | 2021 Target | 2021 Projection | Status | 2022 Target | 2023 Target |
|---------------------------------|---|--|--|--|--|--------|--|--|
| Service Level Measures | | | | | | | | |
| City Beautification | Litter pick-up, parks bins, street bins | 1 to 7 times collection per week | 1 to 7 times collection per week | 1 to 7 times collection per week | 1 to 7 times collection per week | ● | 1 to 7 times collection per week | 1 to 7 times collection per week |
| Residual Management | Compliance with Certificate of Approval for Green Lane Landfill Site and Closed Landfills | 100% | 100% | 100% | 100% | ● | 100% | 100% |
| Collection and transfer | Collection of Garbage, Recyclables and Organics | Bi-weekly to 1 to 2 times per week, depending on customer type | Bi-weekly to 1 to 2 times per week, depending on customer type | Bi-weekly to 1 to 2 times per week, depending on customer type | Bi-weekly to 1 to 2 times per week, depending on customer type | ● | Bi-weekly to 1 to 2 times per week, depending on customer type | Bi-weekly to 1 to 2 times per week, depending on customer type |
| | Reliability of Collection for Single-Family Households | 99.97% | 99.98% | 99.97% | 99.97% | | 99.97% | 99.97% |
| Education | Community Environment Days | Up to 51 per year | 7 at Drop-off Depots across the City | 7 at Drop-off Depots across the City | 14 at Drop-off Depots across the City | ● | Up to 58 per year (7 at Drop-Off Depots & 2 per Ward) | Up to 58 per year (7 at Drop-Off Depots & 2 per Ward) |
| Processing and Transport | Compliance with Certificate of Approval for Resale of Recyclables | 100% | 100% | 100% | 100% | ● | 100% | 100% |

2022 Key Risks and Challenges

Risks & Challenges

- **Blue Box Extended Producer Responsibility (EPR):** City's transition is scheduled for mid-2023; however, City's role in the future system has yet to be defined.
- **Organics Processing Capacity:** Limited regional capacity to address current and increasing volume demand and population growth.
- **Landfill Capacity Constraints:** Long-term availability of provincial landfill space is limited and further compounded by recent changes to provincial legislation under the Environmental Assessment Act.

COVID-19 Impacts

- For 2022, there are no anticipated Covid-19 financial impacts

2022 Priority Actions

Priority Actions for 2022

Blue Box Extended Producer Responsibility (EPR): Negotiate transition of Toronto's blue box program to Producer Responsibility Organizations, and develop a formal transition plan which also includes a change management and communication plan to support staff and residents in the transition to the future state.

Organics Processing Capacity: Advance project development work related to the 3rd Anaerobic Digestion (AD) Facility, maintaining target of initiating construction in 2024 and anticipated commissioning in 2028.

Landfill Capacity: Continue investigating long-term disposal options including landfill capacity development and energy from waste as well as site contract renegotiations and sending material to alternate sites.

Climate Change Resiliency: RNG infrastructure development continuing for the Disco Road Organics Processing Facility with commissioning anticipated in 2023 to further increase RNG supply. Advancing renewable energy infrastructure at Green Land Landfill.

2022 Priority Actions - continued

Priority Actions for 2022

Returning to Pre-Covid service levels and learn from successes: Return to in community E-days as well as maintain Transfer station E-days, reinstate communications and education funding to pre-covid levels, maintain additional resources for parks and litter management.

Utility Rate Stability: SWMS rate model has been developed based on a 3 per cent blended rate increase for each of the outlook years (2023 and 2024) and the remaining seven years through 2031 to support rate stabilization, ensure program funding for future year operating needs including principal and interests costs and necessary contributions to Reserves required to support 10-year Capital Plan.

Utility Rate Review: Analyze the financial impact of Blue Box EPR, and review cost allocations and Solid Waste rate structure to ensure long-term financial sustainability following transition to EPR.

Health & Safety: Advance Vision Zero initiatives on Collection fleet. Enhance driver safety through new SWMS Training Facility. Environmental and Health & Safety Compliance unit to expand divisional oversight and compliance activities.

Climate Lens

| Initiatives proposed in the 2022 Capital Budget | Supports | | (\$000s) | |
|---|-----------------------|-----------------------------|-------------|------------------------|
| | Reduces GHG Emissions | Improves Climate Resiliency | 2022 Budget | 2023-2031 Capital Plan |
| 3rd Organics Processing Facility with Renewable Energy | Yes | Yes | 1,361.0 | 128,612.0 |
| Landfill Gas Control & Utilization from Green Lane & Keele Valley Landfills | Yes | Yes | 6,655.0 | 62,651.0 |
| Net-Zero Dufferin Waste Management Facility Administration Building | Yes | Yes | 1,830.0 | 38,170.0 |

| | Organics Diversion from Landfill | RNG Estimates m ³ /yr. | Estimated GHG Reduction ³ (tonnes CO ₂ e / yr.) | Est. Year In Service / On-line |
|--|------------------------------------|-----------------------------------|---|--------------------------------|
| Organics Processing Facilities (OPF) | Dufferin OPF (55,000 tonnes) | 2.9 M | 5,656 | 2021 |
| | Disco OPF (75,000 tonnes) | 4.6 M | 8,853 | 2023 |
| | New 3 rd OPF (w/ RE) | 6.0 M | 11,804 | 2028 |
| Landfills | Green Lane Landfill ¹ | 25.0 M | 49,469 | 2026 |
| | Keele Valley Landfill ² | 16.0 M | 31,992 | 2026 |
| Tonnes (T) CO₂e / year | | | 107,774 | |

2022 Operating Budget Submission

2022 Budget Overview

| Operating Budget | | | | | | | |
|----------------------------|-------------|------------------|-------------|---------------------|---------|-----------|-----------|
| \$ Thousands | 2021 Budget | 2021 Projection* | 2022 Budget | Chg from 2021 Proj. | | OUTLOOKS | |
| | | | | \$ | % | 2023 | 2024 |
| Revenues | \$379,315 | \$375,686 | \$390,966 | \$15,280 | 4.1% | \$401,676 | \$422,098 |
| Gross Expenditures | \$362,263 | \$353,635 | \$377,809 | \$24,173 | 6.8% | \$389,674 | \$400,433 |
| Capital Contribution | \$17,052 | \$17,137 | \$13,157 | (\$3,980) | -23.2% | \$12,002 | \$21,666 |
| Surplus | | \$4,914 | | (\$4,914) | -100.0% | | |
| Total Capital Contribution | \$17,052 | \$22,051 | \$13,157 | (\$8,894) | -40.3% | \$12,002 | \$21,666 |
| Approved Positions** | 1,132.3 | 1,132.3 | 1,139.3 | 7.0 | 0.6% | 1,135.3 | 1,134.3 |

| 10 Year Capital Budget & Plan | | | |
|-------------------------------|----------|-----------|-----------|
| \$ Thousands | 2022 | 2023-2031 | Total |
| Gross Expenditures | \$69,729 | \$779,391 | \$849,120 |
| Recoverable Debt | \$36,874 | \$432,854 | \$469,728 |
| City Building Fund | - | - | - |

Note: Includes 2021 carry forward funding of \$15.483 million

2022 Operating Budget Submission

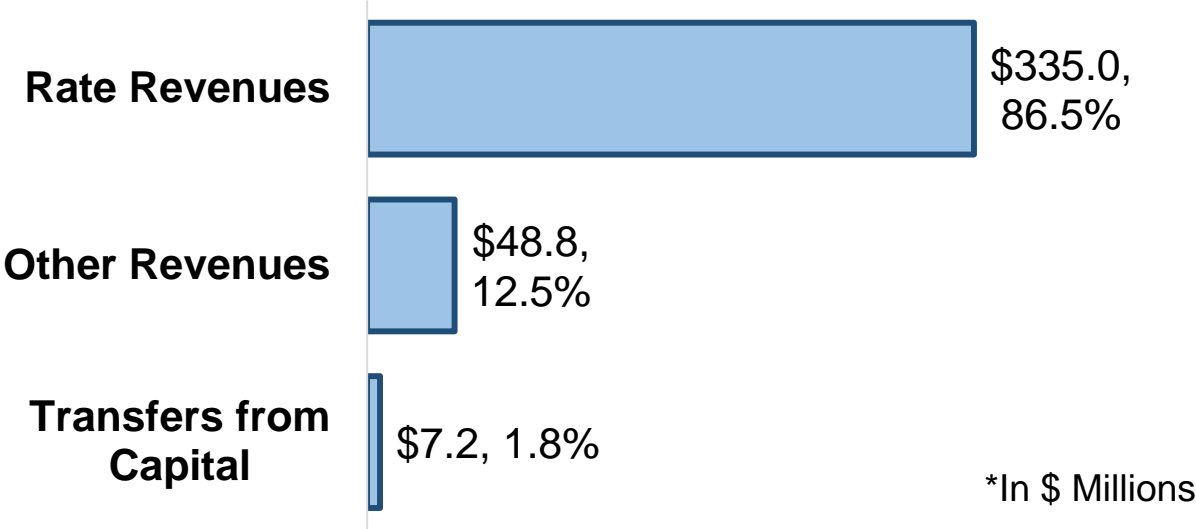
| (In \$000s) | 2020 Actual | 2021 Budget | 2021 Projection* | 2022 Base Budget | 2022 New / Enhanced | 2022 Budget | Change v. 2021 Projection | |
|---------------------------------------|------------------|------------------|------------------|------------------|---------------------|------------------|---------------------------|-------------|
| By Service | \$ | \$ | \$ | \$ | \$ | \$ | \$ | % |
| Revenues | | | | | | | | |
| City Beautification | 1,896.1 | 6,512.7 | 6,375.4 | 6,920.0 | | 6,920.0 | 544.6 | 8.5% |
| Solid Waste Collection & Transfer | 328,988.9 | 331,996.0 | 331,936.6 | 342,151.2 | | 342,151.2 | 10,214.6 | 3.1% |
| Solid Waste Processing & Transport | 22,790.0 | 30,180.3 | 30,096.9 | 31,192.0 | | 31,192.0 | 1,095.2 | 3.6% |
| Residual Management | 7,586.7 | 10,625.6 | 7,094.3 | 10,702.4 | | 10,702.4 | 3,608.2 | 50.9% |
| Solid Waste Education & Enforcement | 50.8 | 0.3 | 183.1 | 0.3 | | 0.3 | (182.8) | (99.8%) |
| Total Revenues | 361,312.4 | 379,314.9 | 375,686.2 | 390,966.0 | | 390,966.0 | 15,279.7 | 4.1% |
| Expenditures | | | | | | | | |
| City Beautification | 38,395.1 | 37,378.5 | 36,445.5 | 39,263.0 | | 39,263.0 | 2,817.5 | 7.7% |
| Solid Waste Collection & Transfer | 128,368.6 | 126,311.9 | 128,916.3 | 134,229.2 | | 134,229.2 | 5,312.9 | 4.1% |
| Solid Waste Processing & Transport | 134,649.2 | 154,744.3 | 148,366.9 | 156,432.7 | | 156,432.7 | 8,065.8 | 5.4% |
| Residual Management | 31,967.4 | 39,860.8 | 36,197.7 | 40,821.7 | | 40,821.7 | 4,624.0 | 12.8% |
| Solid Waste Education & Enforcement | 2,666.8 | 3,967.1 | 3,708.8 | 7,061.9 | | 7,061.9 | 3,353.1 | 90.4% |
| Sub-Total - Gross Expenditures | 336,047.1 | 362,262.7 | 353,635.2 | 377,808.5 | | 377,808.5 | 24,173.3 | 6.8% |
| Capital Budget Contribution | 18,166.7 | 17,052.2 | 17,137.0 | 13,157.5 | | 13,157.5 | (3,979.5) | (23.2%) |
| Surplus | 7,098.7 | - | 4,914.1 | | | | (4,914.1) | (100.0%) |
| Total Capital Contribution | 25,265.4 | 17,052.2 | 22,051.1 | 13,157.5 | | 13,157.5 | (8,893.6) | (123.2%) |
| Total Gross Expenditures | 361,312.4 | 379,314.9 | 375,686.2 | 390,966.0 | | 390,966.0 | 15,279.7 | 4.1% |
| Approved Positions** | 1,128.3 | 1,132.3 | 1,132.3 | 1,139.3 | | 1,139.3 | 7.0 | 0.6% |

*Projection based on 6 Month Variance

**YoY comparison based on approved positions

How the Budget is Funded

Where the Money Comes From \$379.1 Million (2022)



Key Points

Rate Revenues
Represents 86.5% for total operating revenues.

Blended Rate Increase
Includes a 3.0% rate increase for 2022, and a rate of 3.0% in 2023 and subsequent years.

The 3.0% rate increase in 2022 will be fully directed to Waste Management capital reserve contribution.

2022 – 2031 Capital Budget & Plan Submission

Capital Assets to Deliver Services

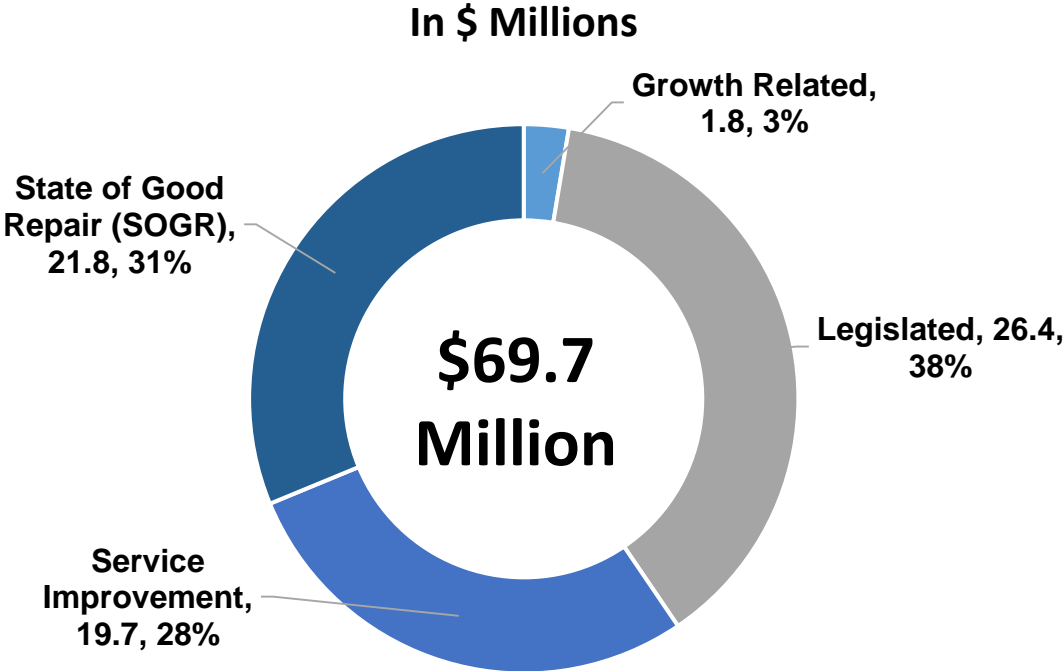
Asset Value – \$0.749 Billion

- 7 Transfer Stations - \$275.9 Million
- 2 Organics Processing Facilities - \$160.4 Million
- 4 Collection Yards - \$16.6 Million
- 1 Maintenance Yard - \$20.4 Million
- Green Lane Landfill + 160 Closed Landfills - \$18.2 Million
- 1.9 million residential bins & containers - \$78.7 Million
- 10,600 parks bins - \$1.2 Million
- 690 vehicles and pieces of equipment - \$178.1 Million

2022 Capital Program Breakdown

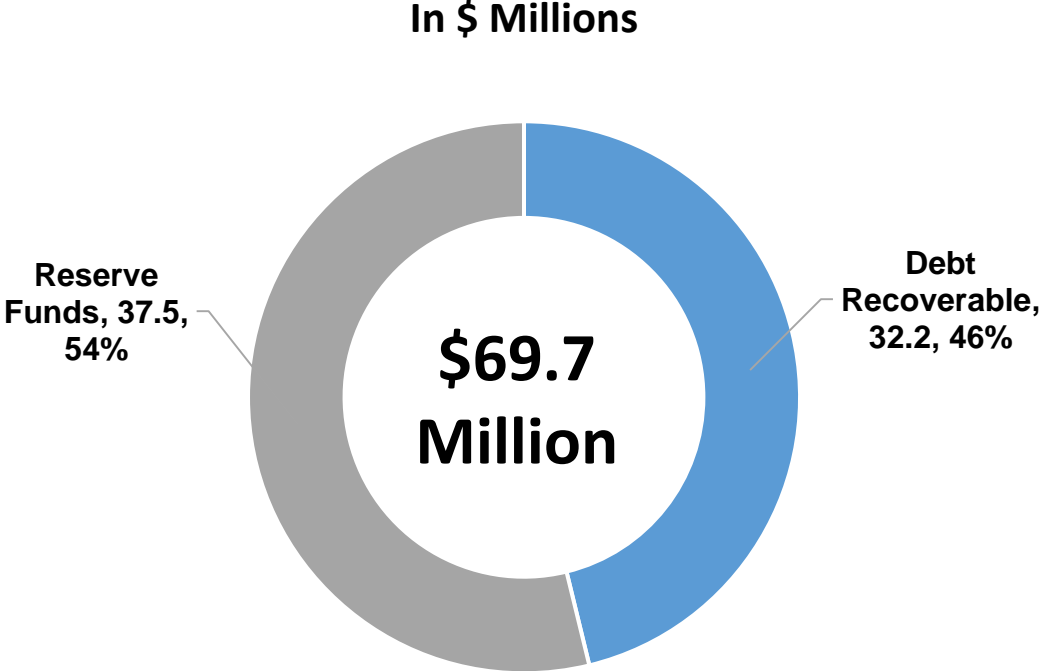
Where the Money Goes

2022 Capital Budget








Where the Money Comes From

2022 Capital Budget



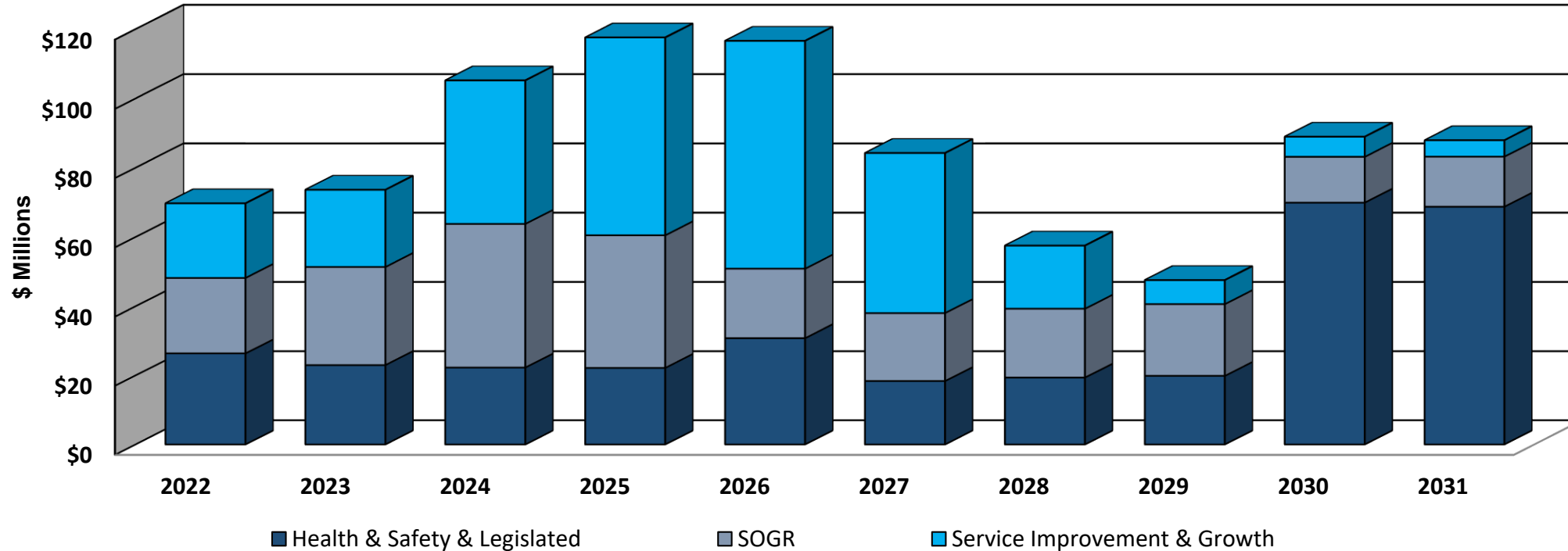
\$849.120 Million 10-Year Gross Capital Program

|  |  |  |  |  |
|---|---|---|---|---|
| Maintaining Infrastructure | Landfill Development and Management | Long Term Waste Management Strategy | Organics Processing Facilities | Biogas/Landfill Gas Utilization |
| \$312.3M 37% | \$321.1M 38% | \$30.9M 4% | \$131.8M 15% | \$53.1M 6% |
| Transfer Station Asset Management Collection Yard Asset Management Diversion Facilities Asset Management Dufferin Waste Facility Site Improvement Fleet Technology Enhancements | Green Lane Landfill Landfill Capacity Development Perpetual Care Of Closed Landfills | Long Term Waste Management Strategy | Dufferin SSO Facility 3 rd Organics Processing Facility | Biogas Utilization Landfill Gas Utilization Renewable Natural Gas |

How the 10-Year Capital Program is Funded

| City of Toronto | | Provincial Funding | Federal Funding |
|-----------------------------------|----------------------------------|-----------------------------|-----------------------------|
| \$849.120 M 100% | | \$0.0 M 0% | \$0.0 M 0% |
| Recoverable Debt | \$456.408 M 54% | | |
| Reserve Draws | \$392.712 M 46% | | |

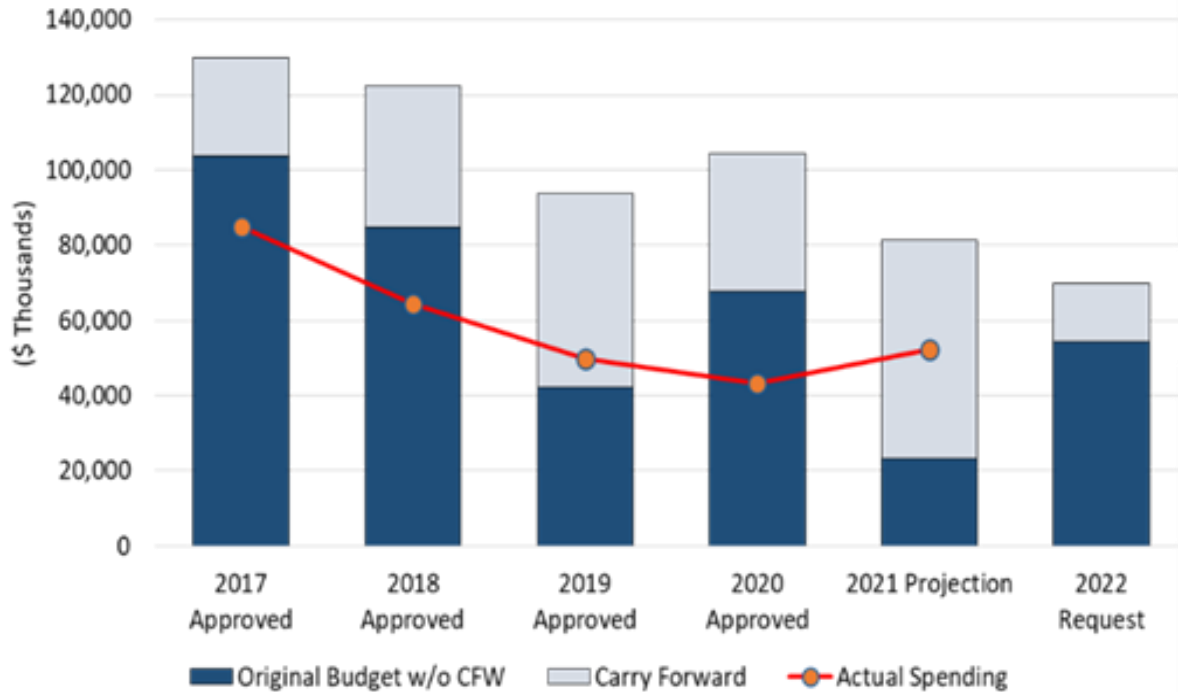
2022 – 2031 Capital Budget & Plan by Project Category



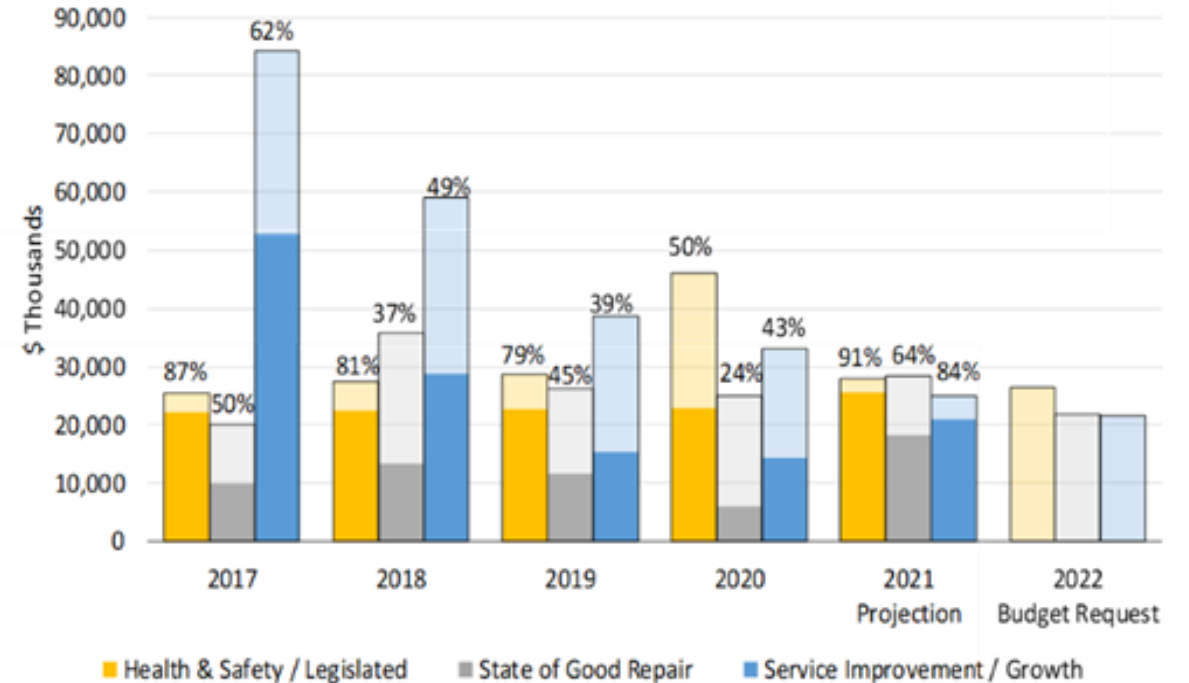
| 2022 - 2031 Staff Recommended Capital Budget and Plan by Category | | | | | | | | | | | |
|---|-------------|-------------|--------------|--------------|--------------|-------------|-------------|-------------|-------------|-------------|--------------|
| \$ Millions | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | Total |
| Health & Safety & Legislated | 26.4 | 23.0 | 22.3 | 22.2 | 30.8 | 18.4 | 19.4 | 19.9 | 69.9 | 68.7 | 321.1 |
| SOGR | 21.8 | 28.3 | 41.5 | 38.3 | 20.1 | 19.7 | 19.9 | 20.8 | 13.2 | 14.5 | 238.0 |
| Service Improvement & Growth | 21.5 | 22.3 | 41.4 | 57.1 | 65.8 | 46.2 | 18.2 | 6.9 | 5.8 | 4.7 | 290.1 |
| Total | 69.7 | 73.6 | 105.2 | 117.6 | 116.6 | 84.3 | 57.5 | 47.6 | 89.0 | 87.9 | 849.1 |

Capacity to Spend

Carry Forward Impact Vs. Capacity to Spend



Budget Vs. Actual Spending by Category



State of Good Repair (SOGR) Funding and Backlog

- Solid Waste Management Services does not have a backlog of State of Good Repair projects.
- At this time, the funding allocated in the 10-Year Capital Plan for Solid Waste Management Services for State of Good Repair projects is deemed appropriate to maintain the assets in a steady state of good repair.

Capital Needs Constraints



- Fully funded with recommend budget framework

Thank You

Appendices

COVID-19 Financial Impact – Operating

| in \$ Thousands | | | | |
|--|-----------------|--------------|--------------|--------------|
| Covid-19 Impacts | 2021 Net | 2022 | | |
| | | Revenues | Gross | Net |
| Revenue Loss | | | | |
| Loss in paid customers at the Transfer Station | \$758.5 | | | |
| Sub-Total | \$758.5 | \$0.0 | \$0.0 | \$0.0 |
| Expenditure Increase | | | | |
| Heath & Satety Supplies (PPEs) | \$160.0 | | | |
| Fleet Charges | \$64.3 | | | |
| Additional pickups for LTC Homes | \$169.2 | | | |
| Sub-Total | \$393.5 | \$0.0 | \$0.0 | \$0.0 |
| Savings due to Under-spending | | | | |
| Net S&B savings | -\$29.4 | | | |
| Landfill Disposal costs | -\$222.1 | | | |
| Sub-Total | -\$251.5 | \$0.0 | \$0.0 | \$0.0 |
| Support from Other Levels of Government | | | | |
| N/A | \$0.0 | | | |
| Sub-Total | \$0.0 | \$0.0 | \$0.0 | \$0.0 |
| Total COVID-19 Impact | \$900.5 | \$0.0 | \$0.0 | \$0.0 |

Impacts and Recovery

- Forecasting a net expenditure increase 2021 due to Covid-19 impact on Solid Waste Management Services of \$900.5K. Total costs are projected to increase by \$394K comprised of \$160K for the purchase of PPE, \$170K cost due to an increase in the number of pickups at Long Term Care Homes due to Covid-19 and \$64K in additional fleet costs. Impacted by a \$759K reduction in tipping fee revenues due to the closure of transfer stations for 3 months (January to March) to residents and commercial activity due to Covid-19 shut down by the province. Total cost are offset a reduction in salary & benefit (S&B) of \$29K due primarily to staff on unpaid leave under the Canadian Emergency Response and \$222K due to reduced net tonnage of garbage disposed at landfill.
- For 2022 there are no Covid-19 financial impacts as we move out of the pandemic due to Canada-wide immunization program and other anti-pandemic measures.