



City Operations

Edmonton

**Waste Services
2022-2025 Business Plan**

Waste Services
edmonton.ca/waste

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INDIGENOUS ACKNOWLEDGEMENT

Edmonton is located within Treaty 6 Territory and within the Métis homelands and Métis Nation of Alberta Region 4. We acknowledge this land as the traditional territories of many First Nations such as the Nehiyaw (Cree), Denesuliné (Dene), Nakota Sioux (Stoney), Anishinaabe (Saulteaux) and Niitsitapi (Blackfoot).

The City of Edmonton owes its strength and vibrancy to these lands and the diverse Indigenous peoples whose ancestors' footsteps have marked this territory as well as settlers from around the world who continue to be welcomed here and call Edmonton home.

Together we call upon all our collective honoured traditions and spirits to work in building a great city for today and future generations.



INTRODUCTION

Waste Services is an essential part of The City Plan and is passionate about enhancing residents' livability while supporting Climate Resilience through innovation and partnership. The goal of the branch is to support and encourage residents, businesses and institutions while demonstrating shared leadership as stewards of the environment.

The integrated 25-year Waste Strategy was developed to ensure Edmontonians receive maximum environmental benefits while minimizing the cost increases of managing solid waste. The City expects to face many challenges in the coming years as a result of the COVID-19 pandemic. Waste Services has realigned its strategic deliverables in consideration of these challenges. The pandemic has prompted a resurgence in single-use products, making the task of diverting waste from landfill more challenging. Edmonton's population growth is expected to grow but at a slightly slower pace than originally expected¹, which could result in lower than forecasted annual utility rate revenue. Economic pressures will also likely result in a lower tolerance for increased waste utility rates.

Waste Services prioritizes waste prevention and reduction initiatives across all sectors. In May 2021, the Waste Reduction Roadmap was approved and is a commitment of the 25-year Waste Strategy. The Roadmap describes programs and activities designed to reduce the quantity of waste that is both generated and disposed of in Edmonton. The goal is to reduce the quantity of waste generated per person in Edmonton by 20 per cent over the course of the 25-year Waste Strategy, with zero per cent growth in residential waste generation per person from 2021 to 2024. The City's focus will be on creating change by:

- supporting Edmontonians in making the behavioral and operational shifts necessary to reduce waste;
- removing barriers to zero waste innovation and circular economy initiatives; and
- increasing awareness of and participation in waste reduction programs.

Stable and consistent utility rates remain a focus for the next four years. The Business Plan also highlights the service delivery transformation and the ability to earn revenue from the sale of waste byproducts and assets to continue to achieve this goal. The service delivery transformation will be achieved through technology deployment, process optimization and

¹ Edmonton's population is projected to keep growing on an annual basis over the forecast horizon, though the pace of growth has been lowered. In the fall 2020 forecast, Edmonton's annual population growth from 2020 to 2030 was projected to average 1.8%. In the spring update, the population growth projection over that same period lowered to 1.6%. *Office of the Chief Economist*

will enhance operational efficiency. Enhanced employee engagement and a continued safety culture will improve productivity and help retain top talent.

The Business Plan outlines how Waste Services will continue to make transformational impacts through the 25-year Waste Strategy, provide essential service to Edmontonians while maintaining full cost recovery, and improve the employee and resident experience to support adaptation of new systems. Over the next four years, Waste Services plans to deliver the following:

- A single unit residential diversion rate of approximately 70 per cent by 2025.
- Implementation of actions from the Waste Reduction Roadmap to promote zero per cent growth in residential waste generation per person in Edmonton.
- Enhancement of the Corporate Three-Stream Waste Program and alignment with other corporate utility management best practices.
- A mandatory source separation program for the multi-unit sector receiving communal collection.
- An Industrial, Commercial and Institutional Sector Program strategy and business plan.
- Service delivery transformation, focusing on efficiency, effectiveness, citizen experience and information technology to deliver stable and consistent utility rates.
- Enhanced asset optimization and innovation.



Edmonton Waste Management Centre

Waste Services Goals 2022-2025

Make Transformational Impacts: Waste Reduction and Residential Diversion

Using a Zero Waste Framework, the 25-year Waste Strategy aims to transform the waste system by focusing on waste reduction as well as committing to diversion of curbside residential, multi-unit residential and non-residential waste from landfill.

Manage the Corporation: Stable and Consistent Rate Increases

Waste Services will maintain stable and consistent rate increases, as per the Waste Services Utility Fiscal Policy C558B, through service delivery transformation, and generate revenue through the sale of waste byproducts, like compost and renewable natural gas.

Deliver Excellent Services: Supporting Transformation

Newly-created programming, digital support for residents and improved customer journey mapping will provide the customer support required for successful system adaptations and increased waste prevention and diversion. Continued employee safety and revised workforce training programs will enhance physical and mental well-being, as well as future role readiness.

Guiding Principles

Over the next four years, Waste Services will follow the guiding principles described in The City Plan and ConnectEdmonton. In addition, Waste will:

- Maximize the promotion of policy, regulation, partnerships and market creation over direct practice and market entry for non-regulated business sectors.
- Manage the risk to diversion targets through balanced portfolios of insourced and outsourced activities for regulated business sectors.
- Build resident behaviour agility to meet evolving system requirements related to changes in market availability and other cost drivers.

Organizational Structure

Alignment with the vision and mission begins with the organizational structure. Waste Services consists of five sections, each strategically aligned to achieve these goals.

- Waste Collection Services responds to the needs of customers through efficient and effective waste collection and drop-off services.
- Sustainable Waste Processing manages the Edmonton Waste Management Centre, receiving and sorting residential waste in an effort to recover valuable resources and minimize the amount of waste going to landfill.
- Technical Services is dedicated to the engineering, technical support, asset management, innovation and environmental compliance of waste processing and collection operations.
- Business Integration is responsible for defining branch strategy, facilitating operational direction, customer experience, resource allocation, financial governance and alignment to corporate directives.
- Waste Strategy was formed in 2019 to ensure coordinated delivery of the 25-year Waste Strategy. It leads research, public engagement, business case development, program and service design, project management and change management in coordination with all other sections to guide the transformation of Edmonton's waste system to a Zero Waste Framework.

The structure of Waste Services will be influenced by the results of the Shared Service Review, Enterprise Commons project, and the newly created Service Innovation and Performance branch. Waste Services will continue to focus on building internal capacities to be more resilient and evolve with external environment changes through a risk mitigation strategy.

Waste Strategy in Action

Over the next four years, Waste Services will ensure the strategic direction set in 2022 is aligned to the 25-year Waste Strategy, The City Plan and ConnectEdmonton, and will also take into account the post-pandemic environment. The Business Plan applies a Zero Waste Framework, which emphasizes constant improvement in waste reduction and diversion across all waste streams and sectors.

Residential Waste Diversion Program

To achieve the 90 per cent waste diversion goal, Waste Services will need to:

1. Prioritize waste prevention and reduction: support all sectors to reduce overall waste generation.
2. Enhance resident partnership: residents are educated and willing to separate waste for disposal.
3. Implement and optimize residential curbside four-stream collection.
4. Initiate residential communal three-stream collection: an opportunity for three-stream collection for the multi-unit sector, as well as alternate disposal at other Waste Services facilities for recyclable material.
5. Increase the operational ability to extract, recycle and reuse the received materials.
6. Increase the marketability of collected products.

Prioritize Waste Prevention and Reduction

Waste reduction efforts are an integral part of the Zero Waste Framework, and crucial to achieving a 90 per cent diversion rate from landfill. In May 2021, the City's first Waste Reduction Roadmap (Roadmap '24) was approved by City Council, identifying programs, services and regulations that will result in less waste being produced by both the residential and non-residential sectors (City Operations report CO00390). Ten waste reduction actions have been identified to further advance the City's three focus areas: removing barriers to zero waste innovation and circular economy initiatives; supporting Edmontonians in making the behavioral and operational shifts necessary to reduce waste; and increasing awareness of and participation in waste reduction programs.

With a goal to reduce the quantity of waste generated per person in Edmonton, the progress of the Waste Reduction Roadmap implementation, including results for the key performance indicators, will be reported every year. Measures for actions will be monitored to support

ongoing performance management, with a summary report to be prepared at the end of 2024 as part of the City's next Waste Reduction Roadmap.

Extended Producer Responsibility

In early 2021, the provincial government released a discussion paper regarding its intentions to develop and implement legislation for an Extended Producer Responsibility framework. The paper describes a regulatory structure and programs specific to packaging and paper, single-use plastics, and hazardous and special products.

The City of Edmonton worked closely with the Alberta Urban Municipalities Association and with municipalities in the Edmonton region to draft a response to the discussion paper. Alberta Environment and Parks indicated during engagement sessions that Extended Producer Responsibility legislation was expected to be introduced in fall 2021, although recent information indicates that this may be delayed to 2022.

The City will continue to monitor the development of the Extended Producer Responsibility framework and programs, and to advocate for its interests to be incorporated into the program design.

Changes to Household Hazardous Waste Program

On January 1, 2021 the provincial government renewed the operating and maintenance agreement for the Swan Hills Treatment Centre. The agreement scales back operations at the Centre and, as of June 1, 2021, it will no longer accept household hazardous waste for processing. Provincial funding for the collection and transport of household hazardous waste to an approved facility will end on March 31, 2022.

The provincial government has proposed that household hazardous waste should be managed under the Extended Producer Responsibility program, effectively transferring the costs and responsibility for managing household hazardous waste from municipalities to producers. However, the provincial government's decision to cease funding for processing will impact the Utility's budget until a more permanent funding solution can be secured.

Home Composting

Waste Services continues to help residents start composting at home and supports those who already do so. Education and outreach provides information on a range of compost methods for all lifestyles, including compost bins, grasscycling and vermicomposting. A

long-term plan for home composting will be developed, which will include a refresh of the interpretive site, support for community composting and expanded volunteer opportunities.

Material Reuse

There are considerable opportunities to expand the reuse component of waste education programming. A hybrid approach to programming was developed including in person and virtual programs. New programs will also be developed to address underrepresented demographic groups like low-income adults, new Canadians, those who speak languages other than English and seniors. Reuse activities may include promoting share and secondhand economies, creating partnerships with local organizations and individuals, expanding the scope of Reuse Fairs, and providing opportunities and support to repair or repurpose. Community partnerships will offer additional sources for materials for creative upcycle programming.

Enhance Citizen Partnership

Public engagement sessions showed Edmontonians support increased waste sorting. Education and outreach to residential customers greatly impact the success of the Edmonton Cart Rollout and promote ongoing resident agility as they adapt to changes in sorting. COVID-19 has changed how public engagement will occur, and a move is underway to increase self-service delivery models to improve Edmontonians' digital interaction with Waste Services. Additional services are being explored, such as two-way communication between residents and collectors and visibility into collector locations to increase public readiness. The recently launched Digital Assistant deploys artificial intelligence technology to answer questions about the Edmonton Cart Rollout, collection schedules and waste sorting practices. Requests for cart exchange/maintenance, billing changes, and additional services will also be integrated digitally to improve effectiveness.

Waste Mass Balance Model

Waste Services maintains a living model of residential waste generation that provides robust forecasts for waste separation. This model is continually updated to address changing environmental circumstances and program changes. The model is integral to business planning as well as Waste Services' 10-year capital plan, and aims to inform appropriate waste processing capacity in response to waste generation.

Waste Collections

Curbside Four-Stream Collection

One of the objectives of the 25-year Waste Strategy is to implement source separation of waste in all sectors starting with single unit households, followed by multi-unit households with communal collection, and the Industrial, Commercial and Institutional sector.

By fall 2021, approximately 250,000 single unit households in the City will have transitioned to a four-stream curbside collection program. These households produce an estimated 67 per cent of the City's residential waste. Single unit residential customers will transition from the monthly hand collection rate to a new variable cart rate. The variable cart rates provide a financial incentive to support residents in making the behavioural and operational shifts to reduce waste as outlined in the Waste Reduction Roadmap. All City carts are installed with a Radio Frequency Identification (RFID) tag, and all cart collection trucks will be equipped with a RFID reader that will read the tag when tipping the cart, recording the collection. The deployment of RFID technology with truck-based GPS will enable Waste Services to automate cart inventory management processes and record real time collection information. The Customer Information System (CIS) has been modernized to enable daily data exchange more efficiently among billing and cart maintenance and inventory information.

The processing effectiveness gained from four-stream collection is expected to divert approximately seven per cent of curbside residential waste from landfill.

The transition to a four-stream collection program consists of:

- Garbage: collected in black carts every two weeks. Residents have a choice of either 120 litre or 240 litre carts.
- Organics: collected in green carts weekly in spring, summer and fall and every two weeks in winter.
- Seasonal leaf and yard waste: collected at the curb on predetermined days twice in spring and twice in fall.
- Recyclables: collected weekly at the curb in blue bags.

Over the next four years, as Edmontonians become accustomed to sorting and setting out waste properly, a greater emphasis will be placed on ensuring waste sorting behaviors are supported by adequate resident education to further increase diversion success.

Communal Three-Stream Collection

Following the implementation of the curbside source separated collection program, attention can turn to the communal collection program. A projected increase in infill and new multi-unit buildings such as apartments and condos anticipated by The City Plan means that this sector represents an increasingly large segment of Edmonton's population, and the actions of these residents will have a significant impact in achieving the goal of 90 per cent waste diversion.

Unlike the curbside program, waste from most apartments and condominiums is collected in shared containers, and unique challenges such as anonymity, high resident turnover, and diverse building types create additional barriers that program changes will need to address.

Waste Services developed a business case proposing significant changes to the current communal waste collection program, including mandatory three-stream source separated collection, mandatory co-location of waste streams and a targeted education program. The business case also included the development of an approach to illegal dumping, variable rates, developer standards, updates to the Waste Services Bylaw, an excess waste program and regular waste characterization studies to support implementation of the ongoing program. These changes are anticipated to increase the projected diversion rate by an additional eight per cent.

The business case was presented to Utility Committee in June 2021. After the presentation, Utility Committee requested that Waste Services provide additional scenarios, considering different levels of service privatization. The updated report will be presented to Utility Committee in Q1 2022.

Industrial, Commercial and Institutional Sector Program

Similar to the Communal Collection program, the City is currently investigating options to increase waste diversion in the Industrial, Commercial and Institutional sector. Development of both a strategy and business case is underway to determine how the City will approach waste in this sector. Currently, waste set out and collection in this sector is not regulated by Waste Services, and the City's role will be to influence through incentives, policy and regulation. Given the expected slow recovery phase from COVID-19, as well as the potential decline in the appetite for climate change investment, Waste Services is balancing the imperative to increase diversion of Industrial, Commercial and Institutional waste with sensitivity and the ability of this sector to bear the potential burden of regulation.

Sustainable Waste Processing

The Edmonton Waste Management Centre is a unique collection of waste processing and research facilities that work to transform waste into useful resources. The size and scope of the Edmonton Waste Management Centre is unique among Canadian municipalities. Legacy, current capital investments, as well as available space and access to waste byproducts, make it a valuable asset.

An Asset Management team was created with specific responsibility for life cycle management of waste processing facilities, infrastructure assets and fleet assets. The team is developing life cycle delivery strategies for each of these three portfolios to ensure systemic renewal and maintenance programs for maximizing asset service life and minimizing life cycle cost, and value realization. The team will ensure that all activities align with the City's approved 10-year Capital Investment Outlook.

Waste Services put forth a report in 2020 outlining the strategy for the rehabilitation of the Materials Recovery Facility. The report, which was approved by City Council, recommends replacing end-of-life equipment and enhancing the fibre (paper/cardboard) sorting line with an optical sorter to improve product quality and potential marketability. Waste Services is evaluating vendors from the Request for Proposal to carry out the remaining work as part of the Operating and Maintenance Contract. This will include the detailed design, pre-construction and post-construction services, warranty, commissioning, ongoing operations and maintenance throughout the term of the agreement.

A Request For Proposal was also issued to secure arrangements for up to 60,000 tonnes of organics processing capacity for the next five years, starting in 2021. Waste Services will work with regional partners to ensure all collected source separated organics are processed.

A business case for the Refuse Derived Fuel Facility enhancement project was presented on May 11, 2020 and subsequently approved. The project's goal is to build an alternative load-out system to enhance the reliability of the facility. This will provide alternative opportunities for the refuse derived fuel and further improve waste diversion.

To meet the diversion goal of 90 per cent, Waste Services will focus on finding markets for various products such as renewable natural gas, recyclable materials, refuse derived fuel, aggregate products and compost. A detailed plan will ensure current outputs will be taken to

market with a focused intent of inventory turnover, cost recovery and profitability. Local markets will be the priority point of focus and constant market scans and industry involvement will allow Waste Services to build partnerships in support of diversion efforts.

Over the next four years, Technical Services will develop a site master plan for the Edmonton Waste Management Centre. This multi-year projection will identify expected development of new facilities, major expansions of existing facilities and associated upgrades to supporting infrastructure such as roads and utilities. This conceptual planning document will guide sustainable site development and provide a guide for capital programming and budgeting while maintaining alignment with business objectives and planning.



Waste coming into the Integrated Processing Transfer Facility

Waste Innovation

The Advanced Energy Research Facility offers plug-and-play capability for numerous sustainable technologies in the research or demonstration/pilot phase of development. It can accelerate the commercialization of such technologies in Alberta. Waste Services is working towards a license and partnership agreement for the Advanced Energy Research Facility with a major industrial partner. Over the next four years, the Advanced Energy Research Facility will continue to drive innovation in bioenergy and renewable resource areas with the objective of fully recovering costs.

The Alberta Clean Energy Technology Accelerator (ACETA) is a collaboration with the City of Edmonton, University of Alberta, Innotech Alberta and CanMet Energy. Alberta Innovates provided \$4 million for this initiative which has been shared between the collaborators. The project is a clean energy technology capacity building initiative that began in March 2019. Its purpose is to provide a cost-recovered platform to pilot and upscale innovation in converting biomass, waste biogas, and natural gas into biofuel and other marketable products, and to create successful commercialization of these new value-added products. Over the next four years, this initiative will advance how Waste Services can improve processing, handling and supply of waste feedstock for the refuse derived fuel process, as well as creating a research hub that will be located at the Edmonton Waste Management Centre.

Landfill gas can be turned into renewable natural gas and the generated green energy can qualify for greenhouse gas offset credits. Both resources can be sold to generate revenue that further contributes to maintaining stable and consistent rates for the best interests of Edmontonians. In 2020, Waste Services secured a \$10 million Natural Gas Challenge grant from Emissions Reduction Alberta to aid in the collection of landfill gas system upgrades and build a processing facility. When operational in 2023, the project is estimated to produce approximately 325,500 GJ of renewable natural gas annually.

The City of St. Albert is working with Waste Services on a waste to energy pilot project, planned to be housed at the Edmonton Waste Management Centre. The purpose of the project is to study how collected waste from a mid-sized municipality might become a revenue stream that brings better value to residents than their current waste management practices. The Edmonton Waste Management Centre is ideally suited to host the project and would be providing support in the form of land, access to utilities and other contributions in kind. The results of the pilot project will be shared with the City of Edmonton and other

supporting municipalities. The project is currently in the planning stage and details are expected to be finalized in 2023.

In addition, Waste Services plans to collaborate on smaller research projects that can bring operational efficiencies and improvements. The goal is to work on innovation within a sustainable model that minimizes the impact on utility rates.



Edmonton Cart Rollout

Service Delivery Transformation

The City of Edmonton has committed to a high level plan of action to recover from the COVID-19 pandemic . Waste Services will align with the recommendations in this report and will participate in an expedited and enhanced program and service review, as well as an enhanced prioritization budgeting exercise.

Citizen Experience Transformation

The 25-year Waste Strategy structures program implementation to provide the customer support required to make system adaptations. The program will drive transformation to successfully move the Waste Services branch from a process- and cost-driven decision-making culture to a customer-centric model. Over the next four years, Waste Services will set a path where proven methodologies and industry-leading practices such as customer journey mapping, customer feedback management, citizen engagement, business performance metrics, and full service and product lifecycle management will be utilized and become normal ongoing improvement activities. Guided by the Corporate Promise and ConnectEdmonton, these transformation activities will align all levels and sections towards a consistent experience at any and all customer interaction points.

Data and Technology Transformation

To ensure optimized climate resilience while delivering on rate payer value, Waste Services relies on timely and accurate data to identify and fulfill existing and emerging service and program needs. The creation of a Waste Services Business Technology Governance Committee will ensure a balanced portfolio of business technology investments (data and technology), aligned with the business objectives and the broader Enterprise Commons project. The modernized future state ensures the continuing on-demand availability of accurate data and the ability for all users to act upon it for reporting (business intelligence) and critical business insights (analytics) through a branch-specific portal.

City Corporation Waste Transformation: Leading by Example

By the end of 2021, 240 City-owned and operated municipal facilities and sites will be outfitted with three-stream waste collection stations as part of the City Corporate Waste Transformation. Over the next four years, the branch will continue to monitor, measure and report on corporate waste diversion. Future work to expand public space waste sorting opportunities is underway with the goal of improving effectiveness and efficiency of public space litter container service.

Fiscal Accountability

Waste Services will continue to strive towards achieving the financial indicators as set out in the Waste Services Utility Fiscal Policy C558B. The branch will continue to focus on providing stable and consistent utility rate increases while achieving cash targets, generating positive net income, and working to achieve the target set for the Debt Service Coverage Ratio to ensure the Utility is financially sustainable over the long-term.

Stable rate increases provide Waste Services with sufficient funding required to manage operations and the Utility's long-term financial sustainability while ensuring the rate increases are within ± 2 per cent of the Consumer Price Index for the Edmonton Metropolitan region. The rate increases also provide Waste Services with sufficient cash to meet Pay As You Go (PAYG) requirements for the next fiscal year plus a risk allowance to mitigate exposure, such as volatility of the markets for recyclable commodities. A sufficient cash balance also allows the Utility to manage or limit its borrowing requirements for capital projects, thereby maintaining the Debt Service Coverage Ratio within prescribed limits.

Edmonton expects to face many of the challenges in the coming years related to the COVID-19 pandemic. The City expects residents will have a reduced tolerance for and ability to withstand waste utility rate increases. Indicative rate increases are forecast to be at or near zero per cent during the 2022-2025 planning cycle while delivering major program changes. The introduction of the variable cart size rates allows the Utility to meet its revenue requirement and provides a financial incentive to reduce waste at the household level.

A key part of Waste Services' overall financial success is the management of non-rate and program revenues from its remaining non-regulated lines of business, ensuring long-term financial sustainability of the non-regulated program. Revenue from the Materials Recovery Facility is also facing pressure as the recycling industry responds to global economic forces. Ongoing focus on expense management will help mitigate the impact of these revenue risks. In addition, Waste Services will continue to look for market opportunities to increase non-rate revenue opportunities through partnerships in the region during this forecast period.

Waste Services is currently conducting a benchmarking study of the shared services costs allocated to the Utility as well as a review of the interdepartmental services charged to the Utility. This will be used to confirm that the allocation methodology currently used to determine utility rates is appropriate and reasonable.

Fiscal Management

As part of the City's Program and Service Review and 25-year Waste Strategy, an assessment of the City's non-regulated business lines was conducted. It was determined that the City's involvement in direct collection of waste from the Industrial, Commercial and Institutional sector has been inadequate in terms of achieving diversion and financial results. As such, changes to the City's non-regulated business lines were recommended, including a wind-down of the Commercial Collections business. This wind-down is expected to be completed by the end of 2021.

Using the Modern Municipal Reference Model in conjunction with the Enterprise Performance Management initiative, Waste Services continues to refine its performance metrics to aid in the management of the business. These metrics provide a balanced focus on customer experience, internal operations and external interactions, and act as guideposts to adjust operations and investments.

Additionally, measures to monitor the climate impact of the 25-year Waste Strategy will be developed, including participation, diversion rates for all sectors, and a calculated greenhouse gas reduction target in line with the City's goal of decreasing its carbon footprint. These targets, based on a carbon budget, allows the City to respond to the urgent need for change. Automation of waste collection and reporting of key metrics will further support data-based decision making.

Capital Plan

As part of the 25-year Waste Strategy, Waste Services has placed greater emphasis on delivering strategic program changes through focused prioritization and realignment of its capital plan. In an effort to continuously improve and in response to audit recommendations, significant improvements have been made to the capital program in the past few years.

Aligned with the City's Project Development and Delivery Model (PDDM), a comprehensive branch program and project management process was developed and is utilized from project initiation, justification (business case development), prioritization, budget development, and expenditure tracking, to project delivery and close-out. Emphasis is placed on capital projects that actively contribute to rate increases of zero or near zero during the 2022-2025 planning cycle while meeting the branch's priority investment needs.

Significant efforts have been made to improve the accuracy of capital program planning and delivery with a focus on capacity. The foundation for an optimal capital planning and delivery practice is built on a thorough understanding of the expected portfolio of work that the organization needs to undertake, with the insight needed to determine the appropriate resourcing and risk mitigation strategies to employ in the delivery model.

In the current budget cycle, a total of \$187 million has been allocated for over 15 capital profiles, including funding for the multi-year profiles like source separated organics and vehicle and equipment replacement, as well as various facility and infrastructure construction and upgrade projects without the need for extra funding requests.

Moving forward, the capital program will continue with the best practice developed, appropriately balancing growth, process efficiency improvement, rehabilitation and regulatory requirement needs. An asset management philosophy focused on safety, reliability and risk management will be incorporated into future capital planning. To facilitate the development and maturity of this philosophy, a percentage of asset replacement value has been incorporated into the capital plan to perform proactive maintenance and repair based on asset condition assessment, safety, security, and environmental requirements.

Key Performance Metrics

GOAL	PERFORMANCE MEASURE	ACTUAL	TARGETS				
		2020	2021	2022	2023	2024	2025
Customer Excellence	Curbside Diversion Rate (Weight Based)*	13%	37%	55%	56%	58%	59%
	Kg/Capita Residential Waste Generated	363	No increase from 2020	No increase from 2020	No increase from 2020	No increase from 2020	No increase from 2020
Operational Excellence	Single Unit Residential Diversion Rate	18%	40%	60%	65%	66%	70%
	Number of Reportable Environmental Incidents	13	<20	<20	<20	<20	<20
Financial Accountability	Annual Net Income (\$000s)	9,070	5,280	9,998	13,795	16,583	16,041
	Stable Rates	0.3%	0.0%	0.0%	1.8%	1.8%	1.8%
	Debt to Net Assets Ratio	76.7%	77.7%	76.0%	75.7%	76.1%	74.2%
	Debt Service Coverage Ratio**	12.6%	<=22%	<=22%	<=22%	<=22%	<=22%
	Cash Position (\$000s)	73,482	31,107	36,521	42,055	51,096	58,566
Organizational Excellence	Employee Satisfaction Rate (Glint Survey)+	71	70	73	73	73	73
	Number of Near Miss Incidents	95	>10% than previous year	>10% than previous year	>10% than previous year	>10% than previous year	>10% than previous year
	Lost Time Frequency Rate (Trailing 12 Months)	2.80	3.38	3.04	2.73	2.46	2.21

*Curbside Diversion Rate focuses on changing customer behaviour. This metric measures the per cent of the total waste collected from residential curbside customers, which is diverted from black bag waste (either to recycling, organics or grass recycling). The formula for this metric is (Tonnes Residential Organics + Recyclables Collected)/(Tonnes Residential Garbage + Recyclables + Organics Collected) X 100%. However, in 2020 the actual result shown was for tonnes of residential recyclable / total waste collected, as the cart system will commence in 2021.

**Debt service coverage measures the ability of the Utility to meet its debt servicing obligations using annual revenues and is calculated as: Debt Service Coverage Ratio = Debt Service (Principal + Interest Payments) ÷ Revenue

The debt service coverage indicator is achieved when the Utility's Debt Service Coverage Ratio is not greater than 22%.

Waste Services will start reporting Debt Service Coverage Ratio in accordance with the revised fiscal policy C558B.

+Survey method changed in 2019 from a comprehensive two year survey to a quarterly survey. Survey results and targets reflect average GLINT survey results of Employee Satisfaction (eSat) measure. The formula for this metric is: Sum of [(% weight of each Quarter's participation rate) X respective Quarter's Glint Survey Result]