



City Operations

Edmonton

**Waste Services
2020 Annual Report**

Waste Services
edmonton.ca/waste

TABLE OF CONTENTS

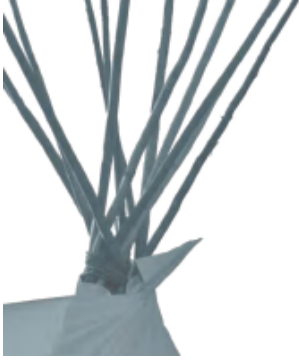
Indigenous Acknowledgement.....	3
Executive Summary.....	4
Operating and Financial Results.....	7
Review of 2020 Performance.....	9
Review of Key Projects.....	15
Focus on Customer Experience.....	20
Attachments - Financial Statements.....	20

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.



EXECUTIVE SUMMARY

The Waste Services 2020 Annual Report highlights the activities of the Waste Services Utility including annual operating and financial performance, and includes unaudited financial statements prepared in accordance with Canadian Public Sector Accounting Standards. Key projects and accomplishments for 2020 included:



- **Advancement of Work on the 25-year Waste Strategy**

The 25-year Waste Strategy sets the goals for the Waste Services Utility and the City's commitment to climate resilience through better waste management practices. Specifically, the City is committed to moving to a zero waste framework and 90 per cent waste diversion through waste reduction, source separation and better processing of waste.

- **Implementation of a Source Separated Organics Program**

As part of the transition to collecting source separated organics, the current two-stream curbside residential waste collection program (black and blue bags) will transition to a four-stream waste collection program in spring 2021 with the introduction of carts and a seasonal yard waste collection service. In preparation for the Edmonton Cart Rollout to approximately 250,000 households, outreach and education activities were conducted to support residents on the Cart Rollout and how it will change the way they interact with their waste.

- **Development of a Business Case for Multi-unit Households**

A business case was started that focuses on the transition from a two-stream waste collection program to a mandatory three-stream source separated collection program for residents that have communal collection.

- **Work on the Waste Reduction Roadmap (Roadmap '24)**

Considerable research, engagement and analysis was done to develop a Waste Reduction Roadmap. The Roadmap lays a foundation for Edmonton's long-term waste reduction efforts and identifies programs, services and regulations that will result in less waste being produced by both the residential and non-residential sectors.

- **Virtual and Online Options for Education and Outreach Programs**

All education programs adapted to offering virtual and online programming options to continue educating residents through the COVID-19 pandemic. Programs included virtual presentations, tours, online inquiries and other outreach initiatives. In support of the Edmonton Cart Rollout, outreach activities were also held to show Edmontonians how to use their carts correctly.

- **Rollout of Source Separated Organics Program at City Facilities**

As Waste Services works to improve diversion in the Industrial, Commercial and Institutional sector, the City is leading by example with the rollout of source separated organics and recycling collection at City Facilities. New three-stream waste sorting infrastructure has been rolled out at 50 City facilities, including City Hall, Edmonton Police Service headquarters, The Meadows and Clareview Recreation Centres and Libraries, Kathleen Andrews Transit Garage and many other public, operations and maintenance facilities.

- **Securing a Grant for the Landfill Gas Project**

Waste Services secured a \$10 million grant from Emissions Reduction Alberta to develop the Landfill Gas to Renewable Natural Gas project. The scope of the project includes upgrading the collection system, construction of a new flare and construction of a landfill gas to renewable natural gas conversion plant. The total project cost is estimated at approximately \$23.2 million.

- **Advancement of Technology to Improve Efficiency**

Waste Services continued to provide effective and reliable engineering and analytical support, GIS mapping and collection route simulation and optimization programs. This behind-the-scenes support is paramount to the success of the Edmonton Cart Rollout. Additionally, a Supervisory Control and Data Acquisition (SCADA) system was established for waste processing facilities at the Edmonton Waste Management Centre for reliable data acquisition, monitoring and operations control.



Edmonton Waste Management Centre

- **Refuse Derived Fuel Facility Enhancements**

A business case for the Refuse Derived Fuel Facility enhancement project was presented and approved on May 11, 2020. 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.

- **Rehabilitation of Materials Recovery Facility**

Waste Services put forward a report outlining an updated strategy for the rehabilitation of the Materials Recovery Facility processing assets. The recommendation was approved by Council and the work is expected to commence in Q1 2022 as part of a new long-term operating agreement.

- **Demolition at the Edmonton Composting Facility**

The removal of the aeration hall structure and south download building at the Edmonton Composting Facility, which began in 2019, neared completion. The removal process prioritized safety but also considered salvage and potential reuse of the existing materials.

- **Asset Renewal and Maintenance**

As a result of the successful creation of the Asset Management program, Waste Services has made progress in asset renewal and maintenance programming for all processing, building infrastructure, and mobile assets to ensure safety, reliability and value.

- **New and Improved Customer Billing System**

A new customer billing system was implemented, aimed at improving productivity and billing accuracy. This system will help to improve the customer billing experience.

Operating and Financial Results

Waste Services continued to improve its overall operating performance in 2020 as demonstrated by a positive cash position of \$73.5 million while maintaining a stable rate increase of 0.3 per cent. For the year ending December 31, 2020, the Utility reported a net income of \$8.9 million (see attached Financial Statements).

The Utility established rigorous reporting standards for performance measurement, ensuring measures are reported consistently and with transparency. The standards also

- allow for effective planning,
- improve the decision-making processes that inform strategy, and
- enable Waste Services to work collaboratively with various internal and external stakeholders to ensure the strategic direction aligns with Council, citizen and corporate priorities.

The table below shows a summary of Waste Services performance measures.

Key Performance Metrics

Waste Services has established four key goals that align with the City's strategic direction including customer excellence, operational excellence, financial accountability and organizational excellence. Each goal and the performance measures related to that goal are explained in more detail after the table. Waste Services reviews its key performance metrics and targets to ensure continuous improvement. Metrics and targets are updated annually in the Business Plan.

GOAL	PERFORMANCE MEASURE	ACTUALS			TARGET
		2018	2019	2020	2020
Customer Excellence	Overall Satisfaction with Eco Stations	No survey conducted	No survey conducted	No survey conducted	94%
	Overall Satisfaction with Residential Collection Service	No survey conducted	No survey conducted	No survey conducted	91%
	Number of Missed Collections per 10,000	2	2	2	2
Operational Excellence	Single Unit Residential Diversion Rate*	36%	23%	18%	64%
	Kilograms of Waste Collected per Capita	251	265	264	255
	Kilograms of Recycling Collected per Capita	41	38	38	51
	Number of Reportable Environmental Incidents	21	20	13	36
Financial Accountability	Annual Net Income (\$000s)	18,134	(15,441)	9,070**	8,709
	Stable Rates	2.3%	2.5%	0.3%	2.5%
	Debt to Net Assets Ratio	81.7%	84.4%	76.7%	77%
	Cash Position (\$000s)	74,091	89,605	73,481	31,700
Organizational Excellence	Engagement Survey Employee Response Rate	71%	N/A	44%	78%
	Percentage Turnover per 100 FTEs	5.1%	6.2%	5.5%	5.5%
	Lost Time Injury Frequency Rate	3.72	3.44	2.80	3.75

*Single Unit Residential Diversion Rate measures the ability to maximize extraction and processing of reusable products (post collection), reducing the overall amount of Single Unit Residential Waste going to landfill. The 2019 result was corrected from 21% to 23% since last reported. Due to the COVID-19 pandemic, Curbside Rollout implementation was deferred to 2021, resulting in an associated timing adjustment of Single Unit Residential Diversion targets.

**\$9,070 as per Regulatory Accounting guidelines, policies and practices; \$8,882 as per PSAS and as noted on page 7 and in the Financial Statements.

Review of 2020 Performance

Customer Excellence

Despite the COVID-19 pandemic that started in 2020, Waste Services continued with its mission of providing excellent customer service. Waste Services met its target of two missed collections per 10,000 stops.

As the pandemic continued to impact everyone, the waste programs geared towards educating and inspiring Edmontonians on how to sort waste correctly and reducing overall waste generation were pivoted to virtual spaces. Programs included virtual presentations, tours, online inquiries and other outreach initiatives. Education programs fall under four main groups: public education, home composting, Master Composter Recycler program and the Reuse Centre (which remains closed as a result of the pandemic).

In 2020, Waste Services offered a total of 299 tours, presentations and workshops to 8,231 Edmontonians. Notable highlights include:

- 100 per cent customer satisfaction on all evaluations for tours, waste presentations, group programs and birthday parties.
- Community advocates (Master Composter Recyclers) reached over 15,000 Edmontonians by volunteering 822 times in 2020.
- All education programs adapted to offering virtual and online programming options to continue to educate residents despite limitations from the COVID-19 pandemic.



The Master Composter Recycler Program is a valuable tool for educating the public on waste reduction and diversion.

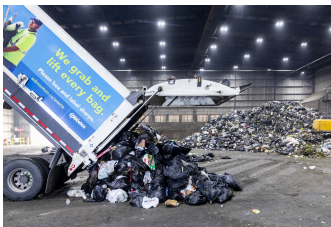
In support of the Edmonton Cart Rollout, outreach activities were also conducted in 2020 aimed at educating Edmontonians to use their carts correctly. This included public information sessions to support residents with education on the generalities of the cart rollout and how it will change the way they interact with their waste, as well as specific workshops on key topics related to using a cart and automated system -- a key success indicator when implementing new programs and changes.

Operational Excellence

Waste Services plays an integral role in Edmontonians' day-to-day lives by providing residential waste management services. In 2020, Waste Services collected, processed and disposed of over 390,000 tonnes of waste for approximately 410,000 residential households and some non-residential customers.

For internal operations, the number of environmental incidents has improved in recent years. In 2020, there were only 13 environmental incidents reported.

In 2020, kilograms of waste collected per capita decreased slightly from the previous year, but was above the 2020 target of 255 kilograms. Kilograms of recycling per capita was on the same level as the previous year, however this amount is expected to increase as Waste Services implements components of the 25-year Waste Strategy. Overall kilograms of waste collected per capita is an important indicator of the effectiveness of waste reduction in the City. By educating residents about the importance of waste reduction for the effort of climate resilience, the goal is to prevent waste from being generated.



Waste coming into the Integrated Processing Transfer Facility

Waste Services diverted 18 per cent of single unit residential waste from landfill, down from 23 per cent in 2019. The single unit diversion rate represents the performance of the City's waste management through recycling, composting, waste to energy and waste reduction through education and outreach, and is an important metric as outlined in the 25-year Waste Strategy.

Reduced diversion performance is primarily driven by waste processing asset conditions at the Edmonton Waste Management Centre. The Edmonton Composting Facility aeration hall was closed in May 2019 and no longer processes organic waste. The Materials Recovery Facility has reduced capacity due to the age and condition of its processing equipment, resulting in reduced processing of blue bag and blue bin material.

Waste Services is implementing projects to improve waste processing capacity, including commissioning of the Anaerobic Digestion Facility, working with regional partners to ensure adequate organic processing capacity, and upgrading the Materials Recovery Facility to ensure adequate capacity and improved sorting through new technology.

Single unit residential waste diversion will be further improved through implementing new operational programs for residents. Beginning in spring 2021, approximately 250,000 households will move to four-stream collection. This aims to improve processing of materials by collecting four separate waste streams: food scraps, seasonal yard waste, recyclables and residual garbage. In addition, the program imposes volume limits on garbage collection. The expected result is an increase in the diversion of materials from landfill.

Financial Accountability

Waste Services' financial statements are prepared in accordance with Canadian Public Sector Accounting Standards (PSAS). As a utility, Waste Services also uses Regulatory Accounting, which refers to the collective accounting guidelines, policies and practices used by rate regulated utilities to provide financial information to its regulator for rate-making purposes. Differences may exist between PSAS and regulatory accounting due to the methodology, timing and/or treatment of certain transactions under regulatory accounting for rate-making purposes. For the Waste Services Utility, these differences primarily relate to deferral accounts that were approved through previous rate filings and the timing of expenses recognized in the financial statements for rate-making purposes to ensure rate increases are stable and consistent. These differences are highlighted below under Net Position.

Waste Services continues to strive for rates that are fair, equitable and value-driven while ensuring that the Utility is financially sustainable over the long term. The four key financial measures, taken collectively, allow for the periodic assessment of the Waste Services Utility's financial sustainability.

In 2020, Waste Services recommended changes to its Fiscal Policy C558B which were approved by City Council in December 2020. The recommendations were informed by a benchmarking study completed in 2020 which compared fiscal policy and applicable financial indicators used by other municipally owned utilities. Under the revised fiscal policy, the Debt to Net Asset Ratio is replaced with a Debt Service Coverage Ratio. The benchmarking study found that Debt to Net Asset Ratio was not a common indicator measured by municipally owned utilities. Cash flow based indicators were found to be a more common

measure for municipally owned utilities with the Debt Service Coverage Ratio being the most common.

Net Position

Waste Services continues to demonstrate progress towards generating sufficient revenues to cover operating expenses and to meet cash flow requirements. Excess of Revenue over Expenses (Net Income/Net Loss) is presented in accordance with Waste Management Utility Fiscal Policy C558B and includes regulatory adjustments approved through previous rate filings such as deferral accounts¹.

In 2020, Waste Services generated a net income of \$8.9 million as presented in the Financial Statements. After taking into account regulatory adjustments related to the deferral of the Edmonton Composting Facility to minimize ratepayer impact, the net income was adjusted to \$9.1 million. See table below.

Net Position Reconciliation (in \$000s)	2020
Excess of revenue over expenses (PSAS)	\$ 8,882
Remaining ECF equipment write down	\$ 3,437
Amortization of regulatory asset ²	\$ (3,249)
Net position (for rate regulation purpose)	\$ 9,070

The net income of \$9.1 million was primarily due to lower than anticipated operating expenses in 2020.

Operating expenses during 2020 were lower due to a number of different factors, such as:

¹ Deferral account is a rate regulated accounting mechanism that allows the Utility to minimize rate volatility for ratepayers by recovering approved costs from ratepayers over a period of time in comparison to recovering those costs in the year when they are actually incurred. For example, the write down which occurred as a result of the structural failure of the Edmonton Composting Facility was approved to be deferred and recovered from ratepayers over a period of 12 years in comparison to recovering those costs in the year in which the write down was known and recorded for financial reporting purposes as required under PSAS.

² The regulatory asset allows the Utility to collect expenses related to the structural failure of the Edmonton Composting Facility from the ratepayers. The costs are being recovered over a span of 12 years to minimize rate impact.

- Lower than anticipated contractor costs of \$5.1 million, primarily due to the delayed demolition of the Edmonton Composting Facility aeration hall and lower environmental compliance costs related to the Groundwater Diversion project;
- Amortization expenses were \$2.9 million lower due to delayed in-service dates for assets versus previously forecasted;
- Personnel cost savings of \$2 million as a result of unfilled vacant positions and a pause in hiring during COVID-19;
- Lower fleet costs of \$1.6 million, as fuel consumption and maintenance expenses were lower than expected;
- Cost savings of \$1.2 million for excess waste collection, which was planned to be part of the Edmonton Cart Rollout project that was delayed until 2021 due to COVID-19.

These lower operating expenses were partially offset by \$3.5 million non-cash expense for the remaining write down of the equipment used at the Edmonton Composting Facility.

The non-cash expenses related to the Edmonton Composting Facility equipment write down will be recovered from ratepayers over a longer period of time. This will help minimize rate impact by utilizing a regulatory deferral account, and as a result the 2020 write down expense is added back to the reported net income of \$8.9 million per PSAS (shown in the table above). Through the 2021 Rate Filing, Waste Services received approval to include the remaining Edmonton Composting Facility equipment write down cost under its deferral account and recover those costs from ratepayers over a period of five years.

Stable Rates

Waste Services continues to focus on achieving stable, consistent rate increases, as evidenced by increases of 2.3 per cent in 2018 and 2.5 per cent in 2019. The 2020 utility rates were originally approved by City Council with a 2.5 per cent rate increase. As a result of COVID-19, implementation of the cart rollout was postponed until 2021, resulting in avoidance of \$4.6 million in operating costs during 2020. The Utility's operating budget was reduced by \$4.6 million and the associated savings passed onto ratepayers by reducing the 2020 rate increase from 2.5 per cent to 0.3 per cent.

Debt to Net Assets Ratio

The debt to net assets ratio is a measure of the extent to which capital investments are financed through debt, with a target range between 50 per cent and 70 per cent. In 2020, the debt to net assets ratio finished at 76.7 per cent, below the ratio of 84.4 per cent at the end of 2019. The debt to net asset ratio has historically been above 70 per cent as Waste Services has focused on other financial indicators, such as stable, consistent rate increases. As part of the Fiscal Policy update, the Debt to Net Asset Ratio was replaced with the Debt Service Coverage Ratio.

Debt Service Coverage Ratio

The debt service coverage ratio is an indirect measure of the extent to which capital investments are financed through debt. This measure determines the ability to pay back debt with a target range of below 22 per cent. In 2020, Waste Services' debt service coverage ratio finished at 12.6 per cent, similar to the ratio of 12.8 per cent at the end of 2019.

Cash Position

The cash position provides for capital funding to meet Pay As You Go requirements for the next fiscal year, plus a risk allowance to mitigate unforeseen revenue and expenditure exposures. In 2020, Waste Services reduced its cash position from \$89.6 million to \$73.5 million. Of the total cash position of \$73.5 million, \$56.7 million is restricted and needed to retire the landfill post-closure and Bremner Lagoon liabilities. The unrestricted cash balance of \$16.8 million will allow the Utility to borrow less in future years reducing the debt to net assets ratio over time.

Organizational Excellence

Waste Services fosters a strong commitment to employees. Highly engaged staff are productive and contribute positively to meet goals. The turnover rate was 5.51 per cent and the lost time injury frequency rate improved to 2.80 in 2020, lower than the target of 3.75.

Review of Key Projects

Implementation of 25-year Waste Strategy

In 2020, Waste Services continued to implement the 25-year Waste Strategy. The Waste Strategy proposes significant changes to waste programs and services. Under a Zero Waste Framework, the strategy aims to transform the waste management system with a new focus on waste reduction while affirming Waste Services' commitment to 90 per cent diversion of single unit residential waste from landfill. The diversion target is also recommended to be extended across all three sectors: Single Unit Residential, Multi-Unit Residential, and Industrial, Commercial and Institutional. One of the first steps of the Waste Strategy is to implement source separation of organics for single unit households, followed by the multi-unit sector and the Industrial, Commercial and Institutional sector. Detailed strategies are being developed for all programs and will inform how the City will reach its diversion target.



Edmonton Cart Rollout

Single Unit Four-Stream Collection: Edmonton Cart Rollout

During 2020, Waste Services was preparing for the implementation of the Source Separated Organics program to approximately 250,000 single unit residential households. As part of these changes, the current two-stream residential waste collection program (black and blue bag) will transition to a four-stream collection program consisting of:

- Food scraps: residential kitchen food scraps will be collected separately in a food scraps (green) cart weekly in the spring, summer and fall and every two weeks in the winter. Residents can also use their food scraps cart to dispose of yard waste, such as leaves and grass clippings.
- Seasonal leaf and yard waste: separate seasonal collection of residential yard waste, including garden waste, leaves and grass clippings, twice in the spring and twice in the fall.
- Recyclables: continued weekly collection in blue bags at the curb.
- Remaining garbage: collected in garbage (black) carts every two weeks. Residents will have the choice of a 120 litre or 240 litre cart.

The Edmonton Cart Rollout began in spring 2021 and full implementation is expected by fall 2021.

Multi-unit Strategy (Communal Collection Program)

In 2020, Waste Services began developing a business case that focuses on the transition from a two-stream waste collection program to a mandatory three-stream source separated collection program for multi-unit residents that have communal collection. Communal collection is defined as waste service provided through the use of shared containers allocated on property level rather than an individual basis. Comprehensive research was conducted, followed by public engagement activities and options analysis. The proposed changes are aimed at increasing diversion in this sector.

City Facility Source Separated Organics and Recycling

As Waste Services works toward improved diversion in the Industrial, Commercial and Institutional sector, the City is leading by example with the rollout of source separated organics and recycling collection at City Facilities. Rollout began in September 2020 and by the end of the year, new three-stream waste sorting infrastructure had been rolled out at 50 City facilities, including City Hall, Edmonton Police Service headquarters, The Meadows and Clareview Recreation Centres and Libraries, Kathleen Andrews Transit Garage and many other public, operations and maintenance facilities.



City Facility Source Separated Organics

Key success factors of the project included close collaboration with Facility Maintenance Services to ensure that three-stream waste removal requirements were appropriately integrated into various custodial service contracts, and regular communication with City custodial inspectors and contractors to ensure effective implementation. Waste collectors also actively monitored the new food scraps bins for contamination.

Staff and public education tactics to support effective implementation included pre-rollout information sessions to designated facility supervisors, toolbox slides that can be shared with staff, online lunch and learns, and follow-up meetings two to four weeks and two to four months post rollout.

Waste Processing

As part of the 25-year Waste Strategy, Waste Services is working to ensure diversion targets are met by improving facility capacities and efficiencies. This includes the commissioning of the Anaerobic Digestion Facility for organic

waste processing, and the upgrades planned for the Materials Recovery Facility, where recyclable materials are sorted. Waste Services also started looking into processing options to ensure adequate organic processing capacity. A business case for the Refuse Derived Fuel Facility enhancement project was presented and approved on May 11, 2020. The project's goal is to build an alternative load-out system to enhance the reliability of the facility and provide alternative opportunities for the refuse derived fuel.

Organic Waste Management

With the closure of the Edmonton Composting Facility in April 2019, Waste Services began to look for an interim organics processing solution to enable the City to continue to divert organic waste from landfill while developing a plan for a long-term processing solution.

The removal of the aeration hall structure and south download building at the Edmonton Composting Facility, which began in 2019, neared completion in 2020. The removal process prioritized safety, but also considered salvage and potential reuse of the existing materials.

To close the processing gap in the interim, Waste Services issued a Request for Proposal to secure arrangements for up to 60,000 tonnes of organics processing capacity for five years, starting in 2021. This added capacity will ensure that all source separated organics are processed.

Materials Recovery Facility Upgrades

In 2020, over 31,600 tonnes of recyclable material was processed through the Materials Recovery Facility. The facility was constructed in 1998 and contains processing equipment that is either at the end of its useful life, or is no longer effective in processing the changing composition of blue bag recyclable material. These challenges have resulted in rising operating and maintenance costs for the facility, reduced effectiveness of diverting recyclables from landfill and a general reduction in overall plant capacity.



Materials Recovery Facility

In the fall of 2020, Waste Services put forth a report outlining an updated strategy for the rehabilitation of the Materials Recovery Facility. The recommendation was approved by City Council and the work is expected to

commence in Q1 2022 as part of a new long-term operating agreement. The equipment rehabilitation project will:

- increase total processing capacity to align with forecasted demand;
- increase landfill diversion rate to industry standards for facility operations and align with branch diversion objectives; and
- increase cost efficiency and reliability of the operation.

Waste Services is committed to minimizing the amount of residential waste sent to landfill as it strives to reach the 90 per cent diversion goal established in the 25-year Waste Strategy. A large component of Edmonton's residential waste stream is recyclable material. Between 2012 and 2017, the recycling program accounted for approximately 16 per cent of total residential waste.

Landfill Gas to Renewable Natural Gas Initiative

In June 2020, Waste Services secured a \$10 million grant from Emissions Reduction Alberta to develop the Landfill Gas to Renewable Natural Gas project. The scope of the project includes upgrades to the collection system, construction of a new flare and construction of a landfill gas to renewable natural gas conversion plant. The total project cost is estimated at approximately \$23.2 million.

When operational in 2023, the project is estimated to produce approximately 325,500 GJ of renewable natural gas annually, with associated total emissions reductions averaging 149,500 tonnes of carbon dioxide equivalent per year. By 2040, the project will result in total emission reductions of approximately 2,540,500 tonnes of carbon dioxide equivalent. A condition of the grant award was that the City of Edmonton partner with Capital Power on this project. Arrangements for this partnership are being finalized.

Clover Bar Landfill Closure Progress

In 2020, closure activities continued on the Clover Bar Landfill located at the Edmonton Waste Management Centre. The Utility anticipates closure activities, including stormwater management, leachate collection, landfill gas collection, clay cover and landscaping to be completed by the end of 2022 for the Clover Bar Landfill.



Clover Bar Landfill

Asset Planning and Process Safety

As a result of the successful creation of the Asset Management program, Waste Services has made great progress in asset renewal and maintenance programming for all processing, building infrastructure, and mobile assets to ensure safety, reliability and value. An asset register system was created with asset records and information properly stored and managed. Asset planning activities have begun based on the physical condition, risk profile and expected performance predictions of the asset. Waste Services also partnered with Fleet and Facility Maintenance and contractors for maintenance delivery, and provided operational support in contract renewals, process safety and asset condition inspections.

Process Automation and Analytical Support

A modern operation relies on effective and reliable engineering and analytical support. Waste Services successfully provided a GIS mapping and collection route simulation and optimization program to support the Edmonton Cart Rollout. GIS provides front-line data collection and communication through its web mapping applications. It created phases and delivery schedules for the Cart Rollout routes for all curbside service streams and provided fleet, staffing and collection frequency models based on pandemic attrition level scenarios.

An app was created to coordinate inspections of all curbside multi-unit sites to determine if they are suitable for cart or bin collection, resulting in hundreds of sites changing collection types and a number of rate changes. The information collected provided evidence and logic for informed decision making. For waste processing facilities at the Edmonton Waste Management Centre, Waste Services also established a Supervisory Control and Data Acquisition (SCADA) system for reliable data acquisition, monitoring and control of operation.

Focus on Customer Experience

In addition to the work done through the source separated organics program, Waste Services completed a comprehensive workshop, better known as customer journey mapping, to gather a deeper understanding of the experience of the customer as a whole. The project looked at both collections and drop-off of waste at areas such as Eco Stations. The journey map feedback will enhance the rollout of the citywide source separated organics program and other work related to the 25-year Waste Strategy.

Commercial Wind Down

Waste Services continued winding down the commercial collection business in 2020. Existing commercial collection customers were notified of this transition and no new commercial clients were accepted. Nearly 1,000 bins were brought back from the field. However, as part of the transition and commitment, Waste Services continued collection services to a handful of commercial customers whose terms have yet to expire. This will give ample time for these customers to arrange services with an industry participant.

New Billing System

EPCOR provides utility billing and customer care for Waste Services. In 2020, EPCOR implemented a new customer billing system and expected to see improved productivity and billing accuracy over time. Staff began training on the new system in 2020 and continue to improve proficiency.

Attachments

[Waste Services 2020 Financial Statements \(Unaudited\)](#)