

Waste Services

Branch Manager:
Michael Labrecque

2018-2020 Business Plan



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Message from the Manager



“Ongoing public education and volunteer programs will sustain the high levels of community engagement that are needed to make our waste system work effectively and efficiently. ”

Edmonton has consistently demonstrated its waste leadership by being the first major Canadian city to introduce curbside recycling, municipal composting, and a one-of-a-kind waste to biofuels and chemicals facility. The City’s 30-year waste management strategic plan set the stage for that leadership.

In 2018 we will update this strategic plan to identify the key priorities that could move us closer to our goal of 90 per cent residential waste diversion from landfill. A 2017 internal program and service review focused on Relevance, Efficiency, and Effectiveness will also help us further define our Branch priorities during the 2018-2020 Business Plan period.

A key component of effective and sustainable waste management is diversion of waste from landfill through reuse, recycling, composting and biofuel production. Treating waste as a valuable product helps conserve natural resources, reduces greenhouse gas production, and provides an additional revenue stream from recyclables, compost, and biofuels. Further increasing Edmonton’s residential waste diversion will depend on the use of innovative technology, operational changes, continued participation from our citizens, and cost effectiveness.

Our main opportunity to increase the diversion rate is by providing Refuse Derived Fuel to the Waste to Biofuels and Chemicals facility, owned and operated by Enerkem. This facility converts residential waste, which cannot be recycled or composted, into methanol and ethanol. When fully operational, it is anticipated this process will increase Edmonton’s waste diversion by approximately 18 - 20 per cent.

We will also explore operational changes that could further increase our residential diversion rate. Any significant changes would require gathering input from Council and the public. The citizens of Edmonton continue to play a major role in our success by sorting their waste properly and participating in waste reduction practices. Their feedback through public engagement in 2018 will also help shape the strategic plan update. Ongoing public education and volunteer programs will sustain the high levels of community engagement that are needed to make our waste system work effectively and efficiently.

We continue to look for efficiencies so that we can keep rates stable over the long term. As a first step, we have reviewed our operating and capital budgets and have reduced our anticipated 2018 rate increase of 4.1 per cent down to approximately 1.8 per cent. This is a result of finding internal savings to cover the costs of some key priorities in our strategic plan, and a review of our capital priorities that improved our overall spending rate.

In addition to innovation, stakeholder engagement, and fiscal responsibility, Waste Services also stands behind the City's commitment to safety. A comprehensive safety program is being rolled out, including enhanced staff training and rigorous process improvement. It includes a thorough evaluation of the Edmonton Waste Management Centre site and workflow processes. A strong safety culture is integral to ensuring continued business excellence and an engaged workforce.

Our Branch supports the City's goal of creating a sustainable city that enriches the lives of current and future generations. The programs and services outlined in this Business Plan align with City Council's ten year strategic plans.

Michael Labrecque, Branch Manager
Waste Services

Our Branch

Waste Services is a leader in sustainable waste solutions with innovative systems that divert waste from landfill and treat waste as a resource. The City's integrated waste management system closely aligns with three of City Council's ten-year strategic goals: Preserve and Sustain Edmonton's Environment; Improve Edmonton's Livability; and Diversify Edmonton's Economy.

Edmonton's Waste Management Strategic Plan, approved by City Council in 1994, provides the framework for our integrated system that blends strong community engagement programs, a highly effective collection system, and innovative waste processing. The 1994 strategic plan was updated in 2008 to reflect municipal, economic and social concerns. During the next three years, Waste Services will continue to contribute to the City's goal of creating a sustainable and resilient community that will support and enrich the lives of current and future Edmontonians.

During the business planning period of 2018 to 2020, Waste Services will focus on the following objectives: increasing the residential diversion rate; engaging customers to increase program participation and satisfaction; marketing recovered and recycled products to end users; continuously improving the business; and enhancing financial sustainability. Waste Services will continue its leadership in providing sustainable waste solutions to the residential sector, while increasing its efforts to foster higher rates of landfill diversion for non-residential waste.

Branch Structure and Programs



Waste Collection Services

Collection Services responds to the current and changing needs of customers through efficient and effective waste collection and drop off services. The Collection Services section provides collection of residential waste and recyclables for single- and multi-unit homes, supplied by both City of Edmonton staff and contracted services.

Direct Collection Programs

- Weekly collection of residential waste and recyclables from approximately 360,000 single- and multi-unit homes
- Collection of waste and recyclables from municipal facilities
- Assisted Waste Collection for approximately 300 residents with mobility restrictions
- Weekly collection of non-residential waste and recyclables from some commercial businesses and institutions

Drop Off Programs

- Four Eco Stations (two with reuse areas)
- 20 Community Recycling Depots accessible 24/7 offering convenient drop-off locations for residents and small businesses
- 12 two-day Big Bin Events for households to dispose of large/bulky items not suitable for regular waste collection
- The Reuse Centre for small items that can be reused by individuals and community groups



Sustainable Waste Processing Services

Edmonton Waste Management Centre is a unique collection of advanced waste processing and research facilities that turn waste into reusable and marketable materials. The focus is on receiving and processing residential and non-residential waste streams to recover valuable resources and minimize landfilling. Waste that cannot be recovered at the various facilities at the Edmonton Waste Management Centre is disposed at nearby landfills that are owned and operated by third parties.

Facilities and operations at the Edmonton Waste Management Centre are either owned and operated by the City and/or contracted staff, or owned and operated by third parties. Staffing for some of these facilities is provided by Quality One Training and Support, which employs previously marginalized people with employment barriers.



Utility Engineering

Utility Engineering ensures well planned and engineered waste utility maintenance and operation systems through monitoring and compliance, research and development, facility upgrading, technical support, and process engineering. This program supports a continuous effort to find opportunities for innovation and efficiencies with its work at the Advanced Energy Research Facility (AERF), asset planning, GIS technologies, and process engineering among many others.

Business Integration

Business Integration is responsible for long-term planning and provides strategic and specialized support for Waste Services. This includes business planning, facilities and asset management, development and management of a performance measurement system, implementation of a workforce competency model, geospatial mapping/spatial data analysis, review of development applications, and utility billing management.

Community Relations

Community Relations leads and coordinates the ongoing public education, social marketing, and volunteer programs that keep the residents of Edmonton engaged in sustainable waste management behaviours. Each year, more than 500 volunteers provide close to 7,000 hours of support to the Branch. Residential participation rates in curbside recycling, backyard composting, grasscycling and other activities are monitored to maintain high levels of engagement in voluntary waste reduction.



Branch Vision, Mission and Values

VISION

To be a customer-driven world leader in sustainable and innovative waste management.

Waste Services builds partnerships that contribute to delivering services that are cost effective, environmentally sustainable and customer driven. As a leader in providing waste management solutions, Waste Services will continue to be an environmental champion and globally recognized as an innovative leader in waste management.

MISSION

To provide waste management services for the City of Edmonton taking into consideration the needs of residents, the preservation of natural resources, the protection of the environment and the financial capabilities of the City.

Waste Services is committed to reducing its environmental footprint, through utilizing the best economically and financially available means to manage waste and engaging citizens to reduce waste through community outreach. Waste Services provides responsive services by collecting and processing residential and non-residential waste to recover resources and increase landfill diversion rates. These operations are aided by internal and external support services.

VALUES

The following values for Waste Services reflect City of Edmonton goals and priorities, our professional values and the nature of our work.

Environmental Stewardship and Public Health

Waste Services continues to be a leader in environmental performance and public health and safety standards. We meet or exceed municipal, provincial and federal requirements for stewardship of the environment, public health, and public safety.

Sustainability

Waste Services plays a key role in the long term sustainability of our city. We adopt integrated sustainable practices that benefit citizens and the environment; we repair, replace and build new facilities to achieve sustainable urban development goals; and we enable affordable utility rates for Edmontonians over the long term.

Excellent Service

Waste Services achieves excellence in customer service. We are innovative in finding ways to deliver services that are both efficient and effective. We stay current with emerging technologies and best practices to provide valued service to our customers, partners and other stakeholders.

Engaged and Inspired Employees

Waste Services is proud of the expertise of its team. Our work environment is innovative, positive, team-oriented and safe. We perform our jobs with integrity and transparency.

Collaboration

Waste Services recognizes the increasing cross-jurisdictional and cross-functional nature of environmental, asset management, and financial challenges and the need for collaborative processes to find solutions. We work collaboratively within the Branch and with others in the department, the City, our regional partners, EPCOR, other orders of government, other municipalities and related organizations to achieve common goals, use resources efficiently and find innovative solutions to the challenges we face.

Branch Business Plan Priorities

Waste Services contributes to the City's success in meeting strategic goals such as: Preserve and Sustain Edmonton's Environment; Improve Edmonton's Livability; and Diversify Edmonton's Economy. In order to support the City's success in achieving its strategic goals, Waste Services will focus on the following objectives during the business planning period:

- Increasing the residential waste diversion rate;
- Engaging customers to increase program participation and satisfaction;
- Marketing recovered and recycled products to end users;
- Continuously improving the business; and
- Enhancing financial sustainability

Waste Services will continue its leadership in providing sustainable waste solutions to the residential sector, while increasing its efforts to foster higher rates of landfill diversion for non-residential waste. The following Branch initiatives will occur over the business planning period and align to one or more of the Branch objectives.

Edmonton Waste Management Centre processing facility additions

Waste Services will continue to maximize its processing capabilities to recover value from waste and minimize landfilling. Waste Services works closely with Enerkem in making every reasonable effort to enable the mutual success of the Waste to Biofuels and Chemicals Facility. The Anaerobic Digestion Facility, which will augment the organics recovery program, is anticipated to be fully operational in 2018. These two initiatives are aligned to Preserve and Sustain Edmonton's Environment and enhance Waste Services' role in diverting waste from landfill.

Site Facility Lifecycle

The City produces the annual Infrastructure Inventory Report in order to keep track of the different assets and their conditions. This report updates replacement value, average age, as well as life expectancy and condition of the City's Infrastructure. The standardized evaluation criteria are as follows:

Physical Condition: The actual condition of the infrastructure that allows it to meet the intended service level.

Demand/Capacity: the amount of demand placed on the physical infrastructure relative to its intended use and how this impacts its ability to meet service needs.

Functionality: The ability of the physical infrastructure to function in its intended manner to meet program delivery needs.

The 2015 Infrastructure Inventory Report showed that overall, the condition rating for Edmonton Waste Management Centre (EWMC) facilities is favourable, showing the majority of assets to be in good or very good condition. However, some of the facilities at the EWMC are nearing the end of their life cycle and will require capital investments in order to continue operating at optimal levels.

Those facilities needing investment include:

Materials Recovery Facility (MRF) - This facility shows poor or very poor condition ratings of 46 per cent in the Physical Condition category, 33 per cent in the Demand/Capacity category, and 42 per cent in the Functionality category. This facility will require work in the coming years to keep the facility in fair or better physical condition. During the business planning period, Waste Services will bring forward a business case to Council with recommendations on how best to deliver the program with appropriate use of capital funds, to sustain the City's recycling infrastructure.

Edmonton Composting Facility (ECF) - This facility shows poor or very poor condition ratings of 29 per cent in the Physical Condition category, 27 per cent in the Demand/Capacity category, and 24 per cent in the Functionality category. A structural inspection conducted in late 2016 identified serious structural issues with the aeration hall ceilings. Based on this assessment, a consultant was hired to provide a more indepth review of the aeration hall ceiling and identify/design short term facility repairs/upgrades that will be implemented in 2017. The long term solution will be investigated and implemented in 2019 to ensure the facility remains in an operational state. The ECF will also require work in the coming years to keep the facility in fair or better physical condition. During the business planning period, Waste Services will develop a life cycle facility plan to ensure the continued operation of the ECF.

Waste Services will start work on a funding model, operating model, and facilities strategy to ensure that its EWMC building assets remain in fair to good condition.

Edmonton Waste Management Centre (EWMC) site infrastructure renewal

The site infrastructure at the EWMC will be evaluated over the course of the business planning period. The review will encompass the site infrastructure design and will highlight potential environmental impacts and operational efficiencies. The review will also include a condition assessment of existing site infrastructure (groundwater diversion system, leachate capture and processing system, and methane collection system). It will recommend potential solutions to ensure the City's assets are effectively managed over the course of their useful lives.

Commercial waste diversion

Waste Services has participated in the commercial waste market since 2011 via the Commercial Waste Collection Program and the Construction and Demolition Recycling Facility at the Edmonton Waste Management Centre. Through the business planning period, the Branch will conduct a review of the Commercial Waste Program to ensure it aligns with the current goals and objectives of Waste Services as directed by Council. In the meantime, we will enhance our internal efforts in order to improve how we ultimately communicate and engage with our external audiences

Edmonton Waste Management Centre internal communications and engagement

In order to improve our external marketing efforts and customer experience, we must ensure that our staff are familiar with our brand, mission and vision, as well as our physical site and the services we provide to customers. Staff also need to be familiar with how we communicate our brand, so that

our messaging is clear and consistent. We will achieve this through a series of internal rollout sessions with all staff at the EWMC, which will include site tours. Additionally, we will be providing adaptable employee handbooks with critical information that will become part of our employee onboarding process. The objective of these employee engagement activities is to enhance internal awareness for our programs and services, which will enable us to meet our future targets of increased customer satisfaction.

Fostering waste reduction

Waste Services will continue to deliver public education and social marketing programs aimed at reducing and diverting waste. These programs encourage residents to participate in grasscycling, backyard composting, recycling and reuse. During the next three years, Waste Services will introduce a new education program focused on food waste prevention. Communities and individuals can reduce their costs and environmental footprints by reducing food waste. Additionally, the Branch is planning to conduct research and engagement activities around recycling habits and behaviours, with a focus on multi-unit customers, an audience that consistently has lower recycling participation rates than our single-unit customers. Introduction of a new recycling campaign and educational program will contribute to our future target of increasing the percentage of residential recycling participation and overall citizen satisfaction with Waste Services.

Customer engagement and satisfaction

Waste Services will continue to regularly engage residents to ensure that they are informed, aware, and satisfied with their waste services, with the goals of increasing customer satisfaction and participation rates. By gathering feedback from residents and customers through a variety of channels, including public engagement processes and annual customer satisfaction surveys, the Branch will be able to recommend improvements to its customer-facing programs and services, in order to reach its future satisfaction and participation goals.

Market recovered and recycled products to end users

The City of Edmonton's waste processing facilities create marketable products out of residential and non-residential waste and recyclables. Some examples of these products include compost, recycled concrete, and plastics. To ensure we optimize the value received from these products, Waste Services will develop a comprehensive marketing and sales strategy, create relevant performance measures for inventory management of these products, and continue to develop industry partnerships in order to elevate the use of these products.

Continue to drive operational efficiencies


Waste Services aims to provide optimal value to customers by offering best possible services at an optimal cost. During the business planning period, we will review the Branch's programs and services to ensure effectiveness, efficiency and relevance. To gain further efficiencies, we will use benchmarking processes to identify opportunities for improvement. We will also review the existing capital program to ensure a responsible capital investment strategy that is well planned and implemented. Finally, we will review the composition of residential waste to align processing technologies with the waste stream.



Focus on safety

A strong safety culture is integral to ensuring continued business excellence and an engaged workforce. A current state assessment and long-term safety strategy has been initiated in partnership with DuPont Sustainable Solutions. This strategy will be implemented over the business planning period and included in the next update to the business plan. Training and safety evaluation programs will be strengthened across the organization, and new technologies that enable staff to work better and safer will be explored and implemented based on the needs of the Branch.





KEY MEASURES

The following is the summary of Waste Services' performance measures:

Branch Strategic Direction	Performance Measures	Actual	Forecast	Targets			Corporate Goals
		2016	2017	2018	2019	2020	
Goal: A Healthy Community Well Served							
<p>Waste Services responds to Council’s vision and our community’s changing needs through active engagement and collaboration.</p> <p>Waste Services provides a high level of customer satisfaction by delivering timely, seamless and uninterrupted service.</p>	Number of users of Eco Stations and Big Bin Events.	298,496	305,000	310,000	315,000	320,000	
	Number of missed collection stops per 10,000.	2	2	3	3	3	
	Percentage of customers satisfied with waste collection services.	90%	90.5%	91%	91.5%	92%	
	Percentage of households recycling (blue bag program)	91%	91.5%	92%	92.5%	93%	

Branch Strategic Direction	Performance Measures	Actual	Forecast	Targets			Corporate Goals
		2016	2017	2018	2019	2020	
Goal: Environmental Stewardship							
Waste Services is committed to preserving and protecting our environment and biodiversity through continuous improvement, regulatory compliance, and pollution prevention.	Compliance with environmental permits and regulations.	100%	100%	100%	100%	100%	
	Percentage diversion of residential waste from landfill.	52%	55%	65% ¹	70%	70%	
	Tonnes of non-residential waste diverted from landfill.	55,000	65,000	70,000	75,000	80,000	
Goal: Operational Effectiveness							
Waste Services fosters a culture of innovation and a strong sense of purpose through a commitment to people, and optimizing systems and resources.	Cost per tonne for curbside collection of refuse and recyclables	\$142	\$148	\$151	\$155	\$158	
	Cost per tonne of material processed at the Edmonton Waste Management Centre.	\$95	\$96	\$98	\$100	\$101	

¹Diversion target has been updated based on an operational review due to the timing of waste processing facilities becoming fully operational.

Branch Strategic Direction	Performance Measures	Actual	Forecast	Target			Corporate Goals
		2016	2017	2018	2019	2020	
Goal: Fiscal Sustainability							
Waste Services strives for rates that are fair, equitable and value-driven.	Annual net income	\$10.5M	~\$13.6M	~\$5.5M	~\$8.6M	~\$8.9M	 
	Percentage rate increase	5.7%	4.4%	~1.8%	~2.0%	~2.0%	
	Debt to net asset ratio	81%	80%	76%	75%	74%	
	Cash position	\$21.7M	\$23.7M	\$20.8M	\$20.1M	\$18.4M	
Goal: Organizational Excellence							
Waste Services fosters a culture of innovation and a strong sense of purpose, through a commitment to people, and by optimizing systems and resources.	Employee Engagement Survey Score ²	68%	N/A	70.0%	N/A	72%	 
	Turnover per 100 FTEs (permanent employees only, excluding retirement)	2.5	3.0	3.5	4.0	4.5	
	Lost time injury frequency rate	4.36	4.0	3.75	3.5	3.25	

² Employee engagement surveys are conducted biennially

Risk Identification

The following table identifies the operational risks associated with Waste Services. The Likelihood score is from 1-Rare to 5-Almost Certain. The Impact score is from 1-Minor to 5-Worst Case.

Risk Factor	Likelihood (1 to 5)	Impact (1 to 5)	Mitigation Strategy	Risk Owner
Environmental liabilities due to the nature of waste management activities and obligations on site	4	5	<ul style="list-style-type: none"> Systematically evaluate site environmental liabilities Develop and implement site environmental management plan Adjust capital investment priorities to effectively address all environmental risks 	Branch Leadership
Site Infrastructure and facility condition deteriorates, resulting in increased maintenance expense, reduced operational efficiency and requiring capital upgrades	4	5	<ul style="list-style-type: none"> Develop a comprehensive asset management program Conduct annual facility condition assessments Implement a rigorous preventative maintenance program 	Branch Leadership
Site disruption resulting in a negative impact to City operations and customer service	2	5	<ul style="list-style-type: none"> Review site design and identify appropriate risks Develop site disruption response plan Communicate the plan to potentially impacted employees 	Branch Leadership
Financial risks including private sector competition, recyclables pricing fluctuations and changes to the value of Greenhouse Gas Emissions Offsets.	3	2	<ul style="list-style-type: none"> Mitigating the financial risk by driving operational efficiencies, working closely with our key stakeholders and providing value for our customers. 	Branch Leadership
Contract cost escalation.	4	2	<ul style="list-style-type: none"> Use a competitive bidding process. Engage multiple outside service providers 	Branch Leadership
Major contracts and/or partnerships are compromised	4	4	<ul style="list-style-type: none"> Diversify risks by identifying alternate options Ensure the use of effective contract management techniques Apply due diligence in structuring contract agreements and evaluation Collaborate with operators of contracted facilities to ensure goals align Provide training to ensure contract management best practices 	Branch Leadership

Planned Changes 2018 - 2020

Financial Impacts for Waste Services

This Business Plan adheres to the principles as established by the Waste Management Utility Fiscal Policy C558A, with priority on reduced, stable, and consistent rate increases. The Branch continues to strive towards achieving the financial indicators as set out in the Fiscal Policy. Additional efforts were made to reduce rate increases in alignment with the consumer price index, decrease the debt to net asset indicator, increase operational efficiencies and re-prioritize capital projects. This Business Plan incorporates the Council Approved 2017 – 2018 Waste Management Rate Filing and 2016 Annual Report results, along with anticipated changes to 2018, 2019 and 2020 proposed budget forecasts. The resulting rate impacts reflect services and infrastructure required to support Branch initiatives.

Financial Challenges

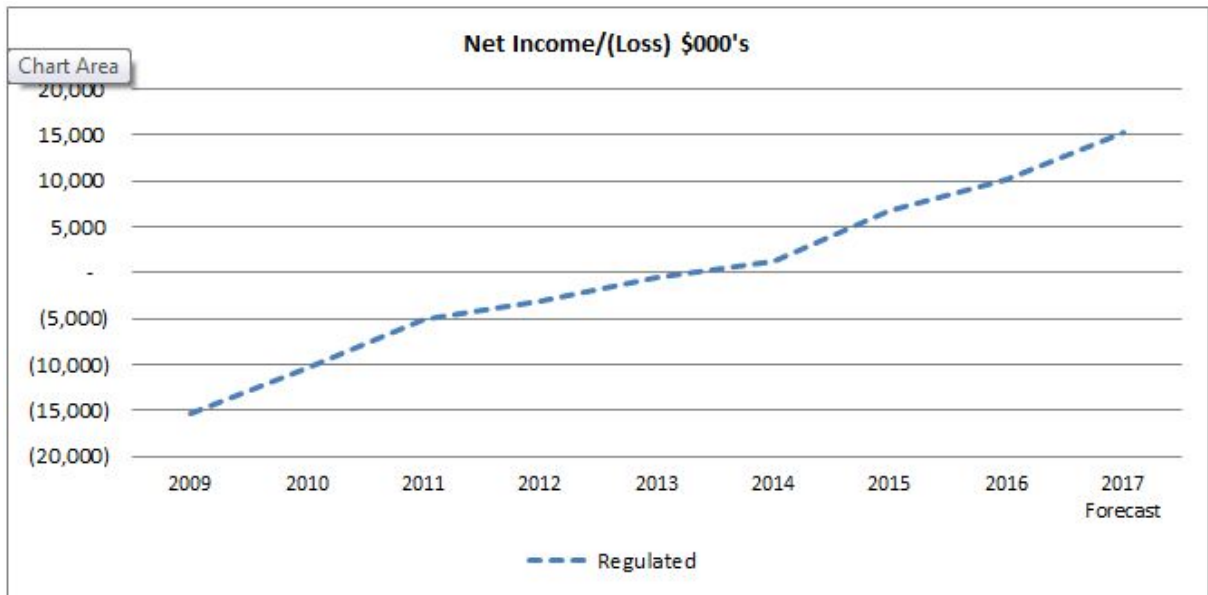
The Branch focuses on providing reduced, consistent rate increases while achieving cash and working to achieve debt to net asset targets earlier than originally forecast. Balancing these financial objectives is demonstrated in the Waste Services 2018-2020 Forecast Financial Indicators table.

Due to higher customer counts, increased program revenue in 2016 and a delay in the usage of the Refuse Derived Fuel Dryer Facility (RDF) capital to the third quarter of 2017, Waste Services achieved a net surplus in operations of \$10,479. Excess of revenues over expenses and rate increases are still required to manage the Branch's long term financial sustainability, ensure sufficient funding for operations and provide funding for capital initiatives in a fiscally responsible manner.

To provide reduced rate increases as reflected in this Business Plan, the Branch proposes operational cost savings in landfill contracts, lower annual collection contract increases, higher commercial collection revenue and increased recyclable commodity revenue. The existing staff complement is sufficient to maintain operations and service levels, thus new Full Time Employees (FTE) have not been requested for this planning period. The capital budget was also fully reviewed through a Capital project prioritization effort, whereby projects were identified for cost reduction or deferral of expenditures. Pay As You Go, defined as cash for capital financing, was used to fund capital expenditures where feasible to reduce borrowing and improve the debt to net asset target. Further details of these initiatives can be found in the 2018-2020 Proposed Amendments by Category section.

Regulated services, such as residential collection, recycling depots, waste processing facilities and compost programs are provided to residential customers and are funded by the monthly waste service fee paid by residents.

Regulated Program Performance



Since becoming a utility in 2009, Waste Services' regulated programs have continued to progress towards a positive net position. The Branch has ensured rates are sufficient to cover operating and capital requirements as well as continuing to work to improve operational effectiveness within the utility business model. In 2016, Waste Services' net income improved as a result of increased program revenue, increased rate revenue from higher customer counts than forecast and savings from a delay in the requirement of the RDF from a less than anticipated demand for feedstock.

Significant factors affecting Waste Services' regulated programs over the next three years include:

- Increase customer base
- Volatility of the markets for recycled commodities processed by the Materials Recovery Facility
- Expense uncertainty due to unknown cost escalation on operating contracts
- Landfill and post closure work required to re-naturalize the retired landfill has been reassessed resulting in identification of additional land capping and revegetation, thus increasing the operating and capital requirements.
- Implementation of technology expansion to increase waste diversion such as Anaerobic Digestion Facility and the Refuse Derived Fuel Dryer.
- Pursuit of efficiencies in all operations including a review of select programs through the city-wide program and services review.
- Continued review and evaluation of the Waste Utilities' capital requirements to ensure that the capital program is prioritized and optimized.

The Corporate Aggregate Recycling program transferred to Waste Services in late 2016. This program is non-regulated and may require land development or equipment acquisition in the future as they review the program requirements. While this will not impact regulated programs and rates, this does

tie to the Branch's goal of achieving higher landfill diversion targets.

Waste Services' capital requirements and expenditures vary greatly from year to year, further contributing to the Branch's challenge to maintain stable rates. Pay As You Go is cash used to finance capital expenditures when a project is not eligible for debt financing as per the Fiscal Policy. For example, assets having a less than 10 year useful life must be cash financed. The use of cash, however, contributes to rate volatility as the rate must be increased in order to raise the full requirement in one year, as opposed to debt where the rate increase is spread over the term of the borrowing as the repayment occurs over a number of years. To assist in addressing this volatility, the Fiscal Policy requires the Branch to earn the next year's Pay As You Go requirement in the year prior to when the funds are forecast to be needed. This approach, however, reduces intergenerational equity as the current ratepayer pays for capital in advance of the benefits realized from the asset over several years.

Waste Services Financial Indicators

Waste Services Financial Indicators, as established by Waste Management Fiscal Policy C558A, incorporate the implementation of Branch initiatives in the 2018 business planning period. Initiatives include increasing residential and commercial waste diversion, encouraging customer program participation and continuously improving the business in a fiscally responsible manner.

Waste Services 2018-2020 Forecast Financial Indicators

The financial indicators are measures of the proposed financial performance of Waste Services. Updated indicators for 2018-2027 will be presented in the fall of 2017 as part of the 2018 Utility Rate process. These will continue the focus on achieving overall long term financial sustainability, balancing both capital and operating requirements with achievement of the financial indicators.

Financial Indicators	2017 Forecast	2018 Proposed	2019 Proposed	2020 Proposed
1 Rate Sufficient to Meet Expenditures and Cash Flow				
Net Income	13,588	5,538	8,586	8,926
<i>Target: Positive Net Income</i>	Yes	Yes	Yes	Yes
2 Cash Position				
Pay As You Go Requirement	7,553	6,748	11,421	7,274
Risk Allowance	2,175	1,725	1,225	1,100
Cash Position Target	9,728	8,473	12,646	8,374
Actual Cash Balance	23,455	20,806	20,102	18,384
<i>Target: Actual Cash ≥ Cash Position Target</i>	Yes	Yes	Yes	Yes
3 Residential Customer Rate Impacts				
<u>Single Unit</u>				
Monthly Billing Increase	\$ 1.90	\$ 0.81	\$ 0.91	\$ 0.93
Impact of Customer Rate	4.4%	1.8%	2.0%	2.0%
Monthly Unit Rate	\$ 44.90	\$ 45.71	\$ 46.62	\$ 47.55
<u>Multi Unit</u>				
Monthly Billing Increase	\$ 1.23	\$ 0.53	\$ 0.59	\$ 0.60
Impact of Customer Rate	4.4%	1.8%	2.0%	2.0%
Monthly Unit Rate	\$ 29.19	\$ 29.71	\$ 30.30	\$ 30.91
<i>Target: Stable, consistent rate increases</i>	No	No	Yes	Yes
4 Financing of Capital Investments				
Debt to Net Assets Ratio	80%	76%	75%	74%
<i>Target: Between 50% - 70%; balancing cash availability, construction inflation, and interest</i>	No	No	No	No

General Comments for Financial Indicators

1. Rates Sufficient to Meet Expenditures

Since 2014, all years have met the requirement of generating sufficient net income to cover operating expenses and continue to be achieved through this business plan.

2. Cash Position

The target cash position for Waste Services is capital funding Pay as You Go requirement for the next year plus a risk allowance to mitigate exposure, such as volatility of the markets for recyclable commodities as outlined in the Waste Management Fiscal Policy.

In 2016, Waste Services' cash position improved as a result of its net surplus in operations of \$10,479 and increase in accounts receivable of \$2,470. The 2016 Waste Collections Curbside Loader Fleet Analysis report supports a ten year useful life for the tandem vehicles as per Fleet and Facility Services' review of the lifecycle and utilization projections. As a result, these units are now eligible to be funded with debenture financing in accordance with the Waste Management Fiscal Policy, resulting in decreases to Pay as You Go requirement as compared to prior forecasts.

3. Stable Consistent Rate Increases

Stable consistent rate increases are forecast to be achieved in 2019, which is one year earlier than proposed in the Approved 2017-2018 Utilities Budget. Reduced rates are attributed to lower forecasted operating contract costs, increase in commercial collections revenue, higher program revenues and decreased amortization as a result of lower capital expenditures.

4. Debt to Net Assets Ratio

The Branch has made this indicator a higher priority by intentionally reducing long term debt through the use of cash, when available, as an alternative funding source. In addition, significant capital expenditures requiring debenture financing have been deferred or reduced. The target Debt to Net Asset Ratio Indicator of 50% to 70% is forecast to be achieved in 2023 as compared to 2026 as demonstrated in the 2017-2018 Utility Rate Filing.

2018 - 2020 Proposed Budget Adjustments

The following table shows Waste Services updated current economic assumptions, utility rate model and asset infrastructure (capital projects costs, funding and associated operating costs) for proposed amendments to the 2018-2020 Operating and Capital Budgets. These assumptions will be updated when the budget is brought forward in the fall of 2017 for Council approval.

	In (000's)			
	2017 Forecast	2018 Proposed	2019 Proposed	2020 Proposed
Revenue & Transfers				
Rate Revenue	174,397	179,443	185,145	191,056
Program Revenue	28,475	29,815	30,256	30,704
Grant Revenue	3,000	4,600	-	-
Total Revenue & Transfers	\$205,872	\$213,858	\$215,401	\$221,760
Expenditure & Transfers				
Personnel	49,548	53,171	54,766	56,409
Materials, Goods & Supplies	5,434	6,953	6,910	7,014
External Services	82,149	87,696	88,700	90,194
Fleet Services	15,985	16,756	17,007	17,262
Shared Services	10,357	10,669	10,990	11,319
Intra-municipal Services	2,029	2,052	2,082	2,114
Utilities & Other Charges	7,658	8,625	8,750	8,876
Amortization & Interest	32,020	34,175	35,352	37,654
Grants	3,000	4,600	-	-
Subtotal	208,180	224,697	224,557	230,842
Intra-municipal Recoveries	(15,896)	(16,377)	(17,742)	(18,008)
Total Expenditure & Transfers	\$192,284	\$208,320	\$206,815	\$212,834
Net Income	\$ 13,588	\$ 5,538	\$ 8,586	\$ 8,926
Full-time Equivalents	576.1	580.3	580.3	580.3

2018-2020 Proposed Amendments by Category

Operating Amendments:

Revenue

- Materials Recovery Facility expected revenue increase of \$650 per year from 2018 to 2020.
- Commercial Collections expected revenue increase of \$300 per year from 2018 to 2020.

Expense

- Collections and Landfill Contracts forecast to decrease by \$1,350 per year from 2018 to 2020.
- Interest on Capital Financing forecast increases an average \$130 per year from 2018 to 2020 mainly due to change in borrowing interest rate assumptions.
- Amortization on Capital Assets decreases an average of \$490 per year from 2018 to 2020 as a result of prior year capital under spending and deferral of some future spend.

Net Impact

- Net position increase amount to \$2,727, \$3,247 and \$3,452 for 2018 to 2020, respectively.

Significant Capital Amendments:

Increases

- Landfill Capping and Revegetation average increase of \$1,580 per year from 2018 to 2020 due to re-work on failed areas and areas damaged by materials storage.

Decreases/Deferrals

- Northwest Eco Station and Construction & Demolition Facility construction start deferred from 2019 to 2021, shifting \$18,300 as Waste Services evaluates these programs.
- Waste Containers reduced \$3,102 from 2018 with extended useful life of existing bins from previous forecasts.
- Compost Facility Centrifuges Replacement removed \$1,756 from Waste Services' 2019 Capital Budget and moved to Drainage Services' capital plan.
- Solar Cells on Facility Roof and Waste to Energy profiles removed \$3,327 and \$3,939 from Waste Services' 2019 and 2020 Capital Budget, as this is deemed as lower priority.
- Waste Management Centre and Collections Facilities and Infrastructure profiles have deferred \$3,895 from 2018 into 2019 and 2020 pending site infrastructure evaluations.

As a result of the thorough capital budget review and re-prioritization, net capital spending decreased an average of approximately \$9,000 per year for 2018 to 2020. These reductions in capital spending are attributed to lowering the operating impacts of capital and maintaining a consistent stable rate, while minimizing adverse impacts to capital maintenance requirements and service levels.

Rate Impacts

Waste Services Rate Impacts (\$ Per Month for Typical Single Unit Customer)

	2017 Approved	2018 Proposed	2019 Proposed	2020 Forecast
Operating Impacts	\$ 2.34	\$ 2.77	\$ 0.48	\$ 0.93
Capital Impacts	0.79	1.02	1.18	(0.92)
Other Impacts				
Non-rate revenue	(0.52)	(0.89)	(0.11)	(0.11)
Increase Customer Base	(0.49)	(0.48)	(0.53)	(0.55)
City of Edmonton Short Term Loan	(0.32)	(0.15)	-	-
Rate of Return	0.10	(1.47)	(0.11)	1.59
SUBTOTAL	(1.24)	(2.99)	(0.75)	0.92
TOTAL RATE IMPACTS	\$ 1.90	\$ 0.81	\$ 0.91	\$ 0.93

As shown in Waste Services' 2018-2020 Forecast Financial Indicators, the proposed 2018 rate moved from \$46.75 Single Unit and \$30.39 Multi Unit to \$45.71 and \$29.71 per month, respectively, as compared to the 2017 – 2018 Approved Rate Filing.

Regulated programs impact both customer rates for Collection Services and Sustainable Waste Processing Services of residential waste.

Operating Impacts

Operations and Maintenance impacts relate to existing personnel complement (such as contract settlements, annual increment and increase in benefit costs), facility repairs, escalation of contracted services and waste utility fees.

Capital Impacts

Interest rate and amortization impacts are realized as capital spending occurs and projects are put into service. The interest is the cost of debt to fund capital projects. Amortization expense is an allowance for replacement of assets and is incurred after the asset is put into service.

- Capital spending reductions and capital replacement deferrals within the Business Plan period, such as Collection Services' Waste Containers and Northwest Eco Station initiatives, have decreased amortization impacts, borrowing requirements and associated cost of debt.
- Higher interest rate assumptions provided by the Corporate Budget Office and significant Collection Services' vehicle purchases eligible for debenture financing have increased interest projections.
- Use of Pay As You Go cash financing increases the rate to ensure sufficient funds are available for capital infrastructure. The Branch took the opportunity to fund a large portion of Collection Services' Curbside Loader purchases by debenture, thereby reducing the Pay As You Go requirement.

Other Impacts

- Non-rate revenue is generated by both regulated and non-regulated sources including construction and demolition revenue, commercial collection revenue, Eco Station revenue, and commodity market revenue from the sale of recyclable materials. This revenue offsets some of the operating costs and therefore assists in lowering the regulated rate revenue requirement.
- Increase of the customer base has allowed the Branch to lower the rate per unit as the revenue requirement is spread over a larger base. This contributes to maintaining a stable, consistent rate.
- The short-term loan from the City of Edmonton Financial Stabilization Reserve (FSR) contributes to keeping the regulated rates lower, as losses from non-regulated programs cannot be covered by regulated revenue.
- Rate of Return is the weighted average cost of debt and cost of equity, as Waste Services works to ensure sufficient funding is available to meet ongoing operational, capital, and cash requirements. The main reason for the annual fluctuations in the Rate of Return is the amount of debt required to fund capital; as debt is reduced, this decreases the associated interests costs and therefore lowers the cost of debt.

Conclusion

Through challenges identified in this and prior business plans, Waste Services continues to work towards achieving its financial targets as established in the Waste Management Fiscal Policy C588A. Diligent efforts to decrease operating and capital expenditures while maintaining operational service levels have resulted in reducing proposed rate increases in the 2018-2020 Business Plan. The Proposed Amendments outlined in this business plan create a solid foundation as the Branch continues towards achieving both financial sustainability and support of Branch initiatives in a fiscally responsible manner.

Appendix 1: Capital Investment

The following table displays the 2017 Forecast Capital Budget and the 2018 - 2020 Proposed Capital Forecast

Waste Services 2018 - 2020 Proposed Capital Forecast

Amounts (\$000)

Capital Program Name	2017 Forecast	2018 Proposed	2019 Proposed	2020 Proposed	2021 and Beyond
Collection Services Facilities					
Northwest Eco Station	-	-	-	-	13,800
Southeast Eco Station	-	-	-	-	15,000
Subtotal	-	-	-	-	28,800
Sustainable Waste Processing (SWP) Facilities					
Integrated Processing & Transfer Facility	2,074	-	8,950	10,569	-
Anaerobic Digestion Facility	26,404	650	-	-	32,533
Material Recovery Facility Renewal	704	-	-	-	3,650
Cure Site Land Use and Development	3,500	3,493	-	-	-
Landfill Capping and Revegetation	3,965	3,070	3,463	2,343	797
Refuse Derived Fuel Dryer	8,278	-	-	-	-
Construction & Demolition Facility	-	-	-	-	4,500
Subtotal	44,925	7,213	12,413	12,912	41,480
Collection Services and SWP Infrastructure					
Collection Facilities & Infrastructure	1,663	350	4,600	3,500	5,520
Waste Management Centre Facilities	5,850	2,008	9,699	5,336	56,090
Waste Management Centre Site Infrastructure	2,838	2,400	6,400	4,711	31,144
Southwest Waste Management Centre	-	-	-	-	3,000
Subtotal	10,351	4,758	20,699	13,547	95,754
Vehicles and Equipment					
Waste Containers	421	800	1,911	2,008	15,848
Equipment and Vehicles (Collections)	5,450	4,197	4,549	9,364	66,213
Equipment and Vehicles (SWP)	4,232	4,711	4,184	4,738	28,691
Subtotal	10,103	9,708	10,644	16,110	110,752
Total Capital Budget	65,379	21,679	43,756	42,569	276,786
	2017 Forecast	2018 Proposed	2019 Proposed	2020 Proposed	2021 and Beyond
Total Growth	31,320	6,804	14,573	13,838	100,788
Total Renewal	34,059	14,875	29,183	28,731	175,998
Total Capital Budget	65,379	21,679	43,756	42,569	276,786

Note: "2021 and Beyond" includes capital project costs within the 2017-2027 timeframe.

Appendix 2: Key Assumptions

The assumptions used to develop this Business Plan are identified in the following tables as provided by the Corporate Budget Office's Budget Guidelines unless otherwise noted.

	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>
Population Growth	1.80%	2.00%	2.10%	2.10%
Consumer Price Index	1.70%	1.70%	1.50%	1.50%
Economic Increase (Note 1)	2.0% (Jan) 1.0% (Jun)	3.00%	Note 1	Note 1

Union/Association increments are budgeted in accordance with the amounts set forth in existing collective agreements. These rates are for Union settlements for ATU 569 Main, ATU 569 DATS, CSU 52, IBEW 1007 and CUPE 30. Rates for 2019 and 2020 have not yet been established.

Cost of Debt

<u>Term</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>
10 Year	2.28%	2.53%	2.78%	3.03%
15 Year	2.83%	3.08%	3.33%	3.58%
20 Year	3.02%	3.27%	3.52%	3.77%
25 Year	3.32%	3.57%	3.82%	4.07%

Debt servicing calculations use Cost of Debt rate forecasts provided by the Corporate Budget Office and are based on actual Alberta Capital Finance Authority borrowing rates up to first quarter of 2017. The rates are mid-year estimates. An additional 0.25% increment is added per year starting in 2018 to 2020.