City Operations

Waste Services
2022 Rate Filing

Waste Services
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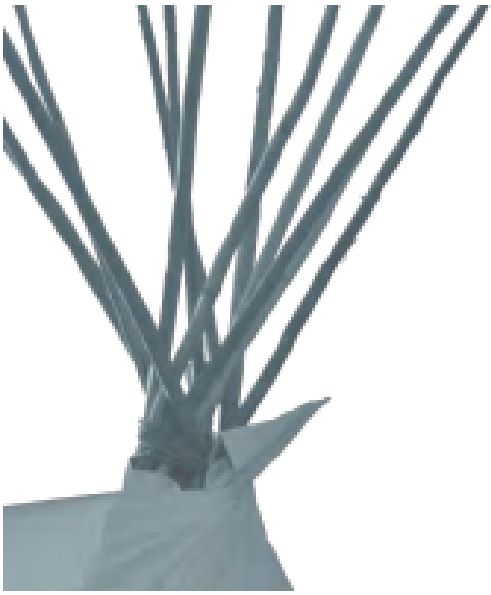
INDIGENOUS ACKNOWLEDGEMENT

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.



EXECUTIVE SUMMARY

Waste Services is an essential part of The City Plan and key to enhancing residents' livability while supporting Climate Resilience through innovation and partnership. The goal of the utility is to demonstrate leadership and support and encourage residents, businesses and institutions to act as stewards of the environment. Programs and activities that promote waste prevention, waste reduction, reuse of materials and circular economy innovations through a Zero Waste Framework, will allow Waste Services to contribute to the City's Corporate Outcomes and reach goals established in the 25-year Waste Strategy.

In alignment with the Waste Services 2022-2025 Business Plan, Waste Services 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.

Following these principles will allow Waste Services to achieve the following goals:

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 residential and non-residential waste from landfill.

Manage the Corporation: Stable and Consistent Utility Rates
Waste Services will maintain stable and consistent utility rates as per the Waste Services Utility Fiscal Policy C558B, through service delivery transformation and by pursuing opportunities to generate additional revenue through the sale of waste byproducts.

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.

The Waste Services utility is well positioned for the transformational changes in the coming years as a result of the 25-year Waste Strategy. Stable and consistent utility rates remain the key goal with a focus on waste prevention and reduction initiatives and alignment to the Zero Waste Framework for all sectors in the City of Edmonton.

1. INTRODUCTION

Waste Services is an essential part of the City Plan and supports Climate Resilience through innovation and partnerships. Waste Services' goal is to support and encourage Edmontonians, businesses and institutions in their waste management practices. Waste Services will support Edmontonians by ensuring utility rate increases remain low and consistent and will encourage Edmontonians by leading by example and focusing on waste reduction and increased waste diversion. These actions will be directed at the minimization of materials going to landfill. This will enable Waste Services to move towards the 90 per cent diversion goal set by Council.

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 changes necessary to reduce waste;
- removing barriers to zero waste innovation and circular economy initiatives; and
- increasing awareness of and participation in waste reduction programs.

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 is working 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.

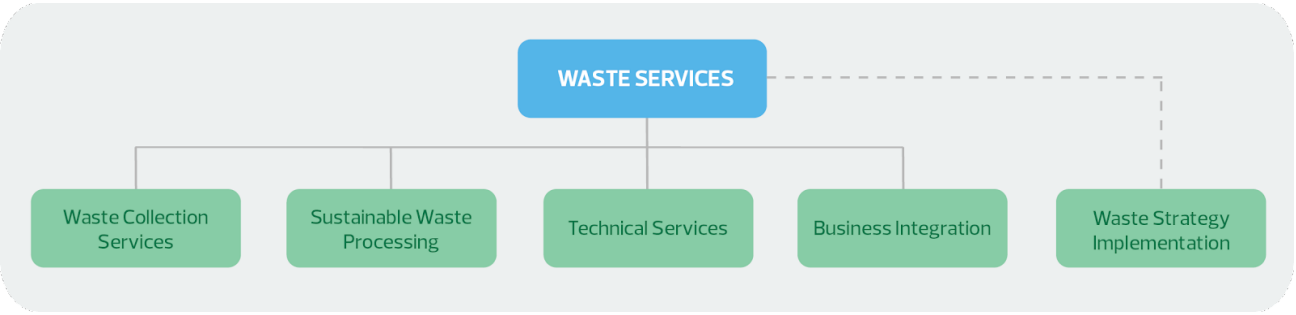
- Service delivery transformation, focusing on efficiency, effectiveness, citizen experience and information technology to deliver stable and consistent utility rates.
- Enhanced asset optimization and innovation.

Stable and consistent utility rates remain a focus for the next four years. Service delivery transformation and the ability to increase revenue from existing assets as well as the sale of waste byproducts will contribute to achieve this goal. The service delivery transformation will be achieved through technology deployment, process optimization and will enhance operational efficiency. Enhanced employee engagement and a continued safety culture will improve productivity and help retain top talent.

2. ORGANIZATIONAL STRUCTURE

Waste Services' organizational structure is fully aligned to the Corporate Business Plan and consists of five sections (Figure 1).

Figure 1: Waste Services Organizational Structure



Waste Collection Services

Waste Collection Services provides efficient and effective waste collection and drop-off services including an Assisted Waste Collection program for residents with mobility restrictions. Residents have access to a number of facilities where large items can be dropped off for recycling, reuse or disposal including Eco Stations, Community Recycling Depots, Big Bin Events and the Reuse Centre.

Sustainable Waste Processing

Sustainable Waste Processing receives and sorts residential and non-residential waste at the Edmonton Waste Management Centre, a unique collection of advanced processing and research facilities. This integrated site, located on 233 hectares, is designed to handle more than 500,000 tonnes of waste per year. Facilities and operations are either owned and operated by the City or run on a contract basis with private industry. The focus of these facilities is to recover valuable resources and to minimize the amount of waste going to landfill.

Technical Services

Technical Services is dedicated to the engineering, technical support, innovation and environmental compliance of waste processing and collection operations. The area provides oversight for capital projects and large operational investments to ensure waste operations are compliant, effective and efficient. This section also manages environmental regulatory compliance and the Clover Bar Landfill post-closure operations.

Business Integration

Business Integration is responsible for defining Branch strategy, facilitating operational direction, resource allocation, financial governance and branch-wide alignment to corporate directives. Key areas of focus include performance management, monitoring and reporting, contract management, customer experience, sales and marketing, utility rate filing and billing. This area is also responsible for the Branch's communications, education, outreach and volunteer programs that keep residents engaged in sustainable waste practices and waste reduction efforts.

Waste Strategy

This section ensures 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.

3. METHODOLOGY & KEY ASSUMPTIONS

The following subsections provide the methodology and key assumptions for the 2022 Rate Filing. The 2022 Rate Filing is based on the August 31, 2021 forecast incorporating significant changes up to September 30, 2021. The assumptions used to develop this Rate Filing include City Council approved corporate budget guidelines and forecasts from the City's Corporate Economist.

- **Forecast Housing Starts and Consumer Price Index**

	2022	2023	2024
Housing Starts	9,700	9,900	10,100
Consumer Price Index	2.10%	1.80%	2.20%

- The following table provides a further breakdown of expected customer growth projections between single unit and multi-unit customers based on historical averages. On October 1, 2021 all existing single unit customers transitioned to a cart based collection system. Customer growth projections assume that the cart size distribution profile for new customers follows a similar trend experienced during the initial cart rollout in 2021.

Housing Starts	2022	2023	2024
120L Cart	523	534	545
240L Cart	4,981	5,084	5,186
360L Cart*	25	25	26
Multi-Unit	4,171	4,257	4,343
Total	**9,700**	**9,900**	**10,100**

*Available only to residents that meet unique requirements to qualify.

- **Employee Benefits**

  The 2020-2022 Operating Budget amounts were calculated by the City of Edmonton's Capital and Operating Budget System (COBS) which allocates benefit dollars by employee. The 2022 Rate Filing includes an update for any recent changes in benefit rates for the Local Authorities Pension Plan, Canada Pension Plan, Employment Insurance, Major Medical and Dental Plan, Group Life Insurance and Health Care Spending Account.

- **Regulatory Methodology**

  The revenue requirement and customer rates are based on the forecast costs required by the utility to provide its services using a cost of service methodology. The methodology and allocations used in determining the revenue requirement are based on the 2017 Cost of Service Study completed by an independent consultant in 2018. An updated Cost of Service Study was initially planned for 2022 using full years operational and financial data after implementation of the Single Unit cart rollout. Due to COVID-19, the cart rollout implementation was postponed by almost one year, with all single unit residents transitioning to a cart based collection system starting in September 2021. As a result, the next Cost of Service Study will be done in 2023 using full years operational and financial data from 2022 to ensure that cost allocations appropriately reflect the impacts of transformational service delivery changes provided by the utility to its customers.

- **Cost of Debt**

  Debt servicing calculations use the cost of debt rate forecast provided by the City's Corporate Accounting and Reporting section and are based on actual Government of Alberta (formerly the Alberta Capital Financing Authority) borrowing rates as of the third quarter of 2021. The rates are calculated to be mid-year estimates. An additional 0.25 per cent increment is added per year starting in 2022.

Term	2022	2023	2024
10 year	2.08%	2.33%	2.58%
15 year	2.52%	2.77%	3.02%
20 year	2.77%	3.02%	3.27%
25 year	2.95%	3.20%	3.45%

Other assumptions include the following:

- Waste Services Utility Staff Vacancy - Unless otherwise stated, the typical expected staff vacancy is four per cent for all staff.

- Full-time Equivalent - A full-time equivalent (FTE) is defined as the hours (and associated personnel costs) one full time employee would work in a year. For example, if a position is funded for one year, it is equivalent to 1.0 FTE, whereas a position funded for six months is equivalent to 0.5 of an FTE. Funding for a new position may be adjusted in the first year to

reflect the timing between approval of a new position and hiring, with full funding for the position beginning the following year.

- Customer Growth - The customer counts are based on historical trends and the anticipated household starts as projected by the City's Corporate Economist.

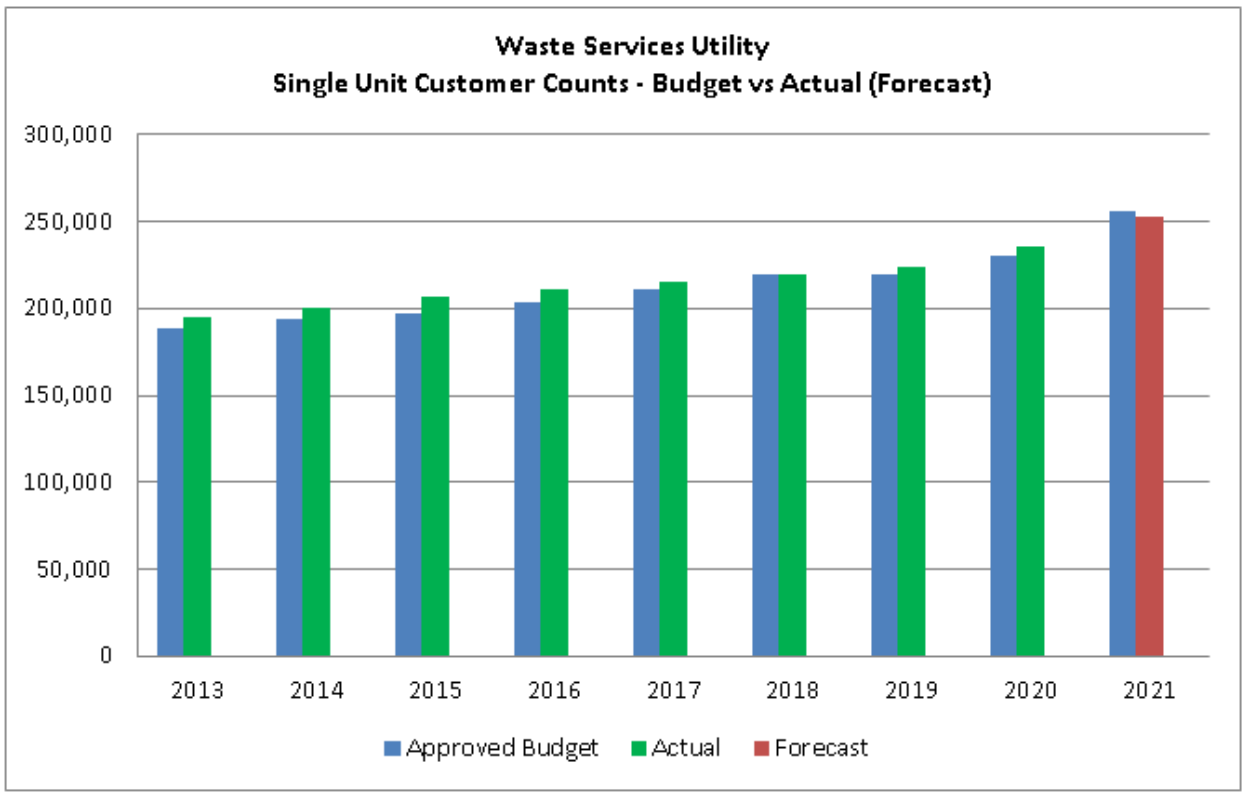
- Multi-unit Sector - This rate filing assumes services to multi-unit customers are provided under a fully regulated status-quo model. The rate forecast incorporates capital and operating requirements starting in 2023 to support the implementation of three-stream waste separation in the multi-unit sector. This rate forecast will be reviewed and updated in future rate filings subsequent to the outcome of the updated Multi-Unit Strategy report and business case which is expected to be brought forward for Utility Committee recommendation and Council approval in March 2022.

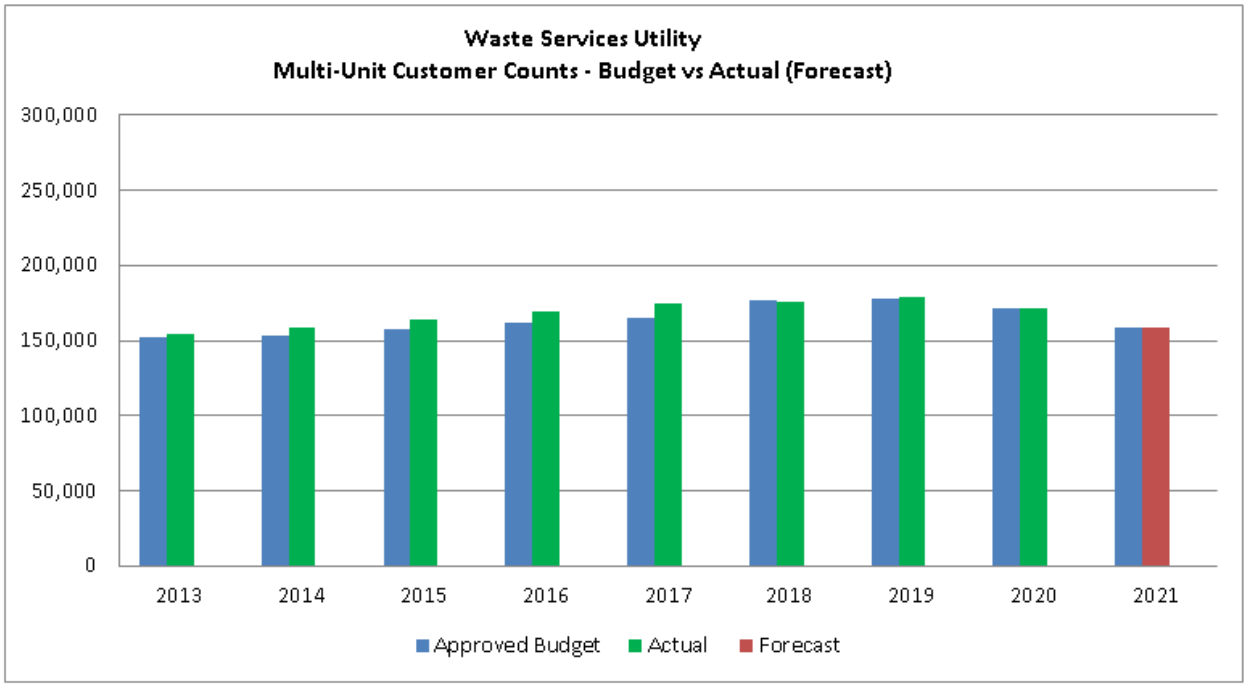
- Cart Adoption - On October 1, 2021, approximately 252,500 households moved to four stream collection as part of the Edmonton Cart Rollout with separate food scraps collection, seasonal yard waste collection and garbage volume limits. After the citywide distribution of carts, Single Unit Residential Curbside customers were transitioned to variable rates on October 1 based on their choice of garbage cart size. Rate revenue forecasts have been updated to include the current cart distribution as of October 1. Expected single unit customer growth was forecasted to align with the actual cart adoption. The customer base assumed in the 2022 Rate Filing to recover revenue requirement from the residential curbside and communal collection customers is represented in the figures below:

Service Type	2020 Actual	2021 Forecast	2022 Proposed	2023 Forecast
120L Cart	-	22,027	22,311	22,600
240L Cart	-	209,624	212,322	215,076
360L Cart*	-	1,042	1,055	1,069
Transition Cohort 1	7,233	7,233	7,233	7,233
Transition - Cohort 2	-	12,572	12,572	12,572
Curbside	236,120	252,498	255,493	258,550
Communal	171,715	159,143	164,038	168,980
Total	**407,835**	**411,641**	**419,531**	**427,530**

*Available only to residents that meet unique requirements to qualify.

A review of customer accounts was completed as part of the 2017 Cost of Service Study. Through this review a number of households were identified as receiving service as if they were a single unit customer but were being charged the lower multi-unit rate. In 2019, the Waste Services Bylaw was updated to allow for customers to be charged in alignment with their service type. Waste Services undertook a project to review these accounts to determine the appropriate classification and service type. These households were reclassified from the multi-unit rate to the single unit rate. To avoid rate shock for these customers, Waste Services received approval to adjust the rates from the multi-unit rate to the single unit rate over a period of five years. These customers are classified as Transition - Cohort 1 (customers who began the transition period in 2020) and Transition - Cohort 2 (customers who began the transition period in 2021) in the above table.


Waste Services Utility
Single Unit Customer Counts - Budget vs Actual (Forecast)
300,000
250,000
200,000
150,000
100,000
50,000
0
2013
2014
2015
2016
2017
2018
2019
2020
2021
Approved Budget
Actual
Forecast


Waste Services Utility
Multi-Unit Customer Counts - Budget vs Actual (Forecast)
300,000
250,000
200,000
150,000
100,000
50,000
0
2013
2014
2015
2016
2017
2018
2019
2020
2021
Approved Budget
Actual
Forecast

4. OPERATIONAL PERFORMANCE

Key Performance Metrics

The four performance goals below summarize Waste Services' performance measures.

GOAL	PERFORMANCE MEASURE	ACTUAL	TARGETS				
		2020	2021 Forecast	2022	2023	2024	2025
Customer Excellence	Curbside Organics & Recyclables Collected [1]	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 [2]	18%	32%	40%	50%	60%	70%
	Number of Reportable Environmental Incidents	13	<20	<20	<20	<20	<20
Financial Accountability	Annual Net Income ($000s)	$9,071	$18,210	$12,789	$11,191	$13,433	$10,894
	Stable Rates [3]	0.3%	0.0%	0.0%	1.2%	1.2%	1.0%
	Debt Service Coverage Ratio [4]	12.6%	12.5%	13.0%	13.1%	13.3%	13.5%
	Cash Position [5] ($000s)	$73,481	$70,438	$56,428	$32,134	$30,909	$33,288
Organizational Excellence	Employee Satisfaction Rate (Glint Survey) [6]	71	70	73	73	73	73
	Number of Near Miss Incidents [7]	95	105	10% more than previous year	10% more than previous year	10% more than previous year	10% more than previous year
	Lost Time Frequency Rate (Trailing 12 Months)	2.80	3.38	3.04	2.73	2.46	2.21

[1] Curbside Organics & Recyclables Collected 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 cart 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%. The 2020 result was lower than the 2021 forecast as no Residential Organics were collected during that year. The title of this metric was adjusted from "Curbised Diversion Rate (weight based)" in previous public reporting to "Curbside Organics & Recyclables Collected" to clarify what it is measuring and to differentiate it from the Single Unit Residential Diversion Rate metric.

[2] Single Unit Residential Diversion Rate targets have been updated related to process changes at the Edmonton Waste Management Centre, including a capital upgrade of the Materials Recovery Facility and ongoing negotiations related to Refuse Derived Fuel.

[3] Stable Rates measures the ability of Utility to maintain stable consistent rate increases. As defined in the Waste Services Utility Fiscal Policy C558B, utility rates are considered to be stable and consistent when the year over year change in rates is within ± 2% of the Consumer Price Index for the Edmonton metropolitan region.

[4] 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%.

[5] Higher cash position is required to fulfill obligations for the Clover Bar Landfill and Bremner Lagoon liabilities. Closure activities for the Clover Bar Landfill are expected to be completed by 2023.

[6] 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)]".

[7] A near-miss is a hazard that does not result in injury, illness or damage, but has the potential to do so. Reporting on Near Miss Incidents provides a proactive approach to tackling more serious lost-time incidents.

5. LANDFILL CLOSURE & RELATED LIABILITIES

The Utility's landfills include a Class II and Class III landfill which are currently being prepared for complete closure and reclamation in accordance with operating approval from Alberta Environment and Parks (AEP). The Clover Bar Landfill (Class II) opened in 1975 and was Edmonton's first engineered sanitary landfill, featuring groundwater diversion, leachate treatment and environmental monitoring. The landfill, which lasted 20 years longer than expected due to recycling programs starting in 1988, reached full capacity and was closed in August 2009. The Class III landfill, originally established for the 1987 tornado debris, ceased operations in 2008.

Pursuant to the Alberta Environmental Protection and Enhancement Act, the Utility is required to fund the closure of its landfill site and provide for post-closure care of the site. Closure and post-closure activities include the final clay cover, landscaping, surface and groundwater monitoring, leachate control, landfill gas management and visual inspection. The minimum period for post-closure care is 25 years and the landfill closure and post-closure care plans are based on engineering assessment of current ground conditions, leachate levels, geology, and various other environmental and regulatory conditions. The costs to close and maintain solid waste landfill sites are based on estimated future expenses, adjusted for inflation and discounted to current dollars. These costs are reported as a liability on the Statement of Financial Position in accordance with Canadian Public Sector Accounting Standards (PSAS). Future events, such as changes to regulatory requirements, and/or changes in ground conditions, leachate levels, etc., may result in changes to the estimated cost and will be recognized prospectively as an adjustment to the reported liability, when applicable.

The following table summarizes the estimated liability and expected disbursements required to complete closure activities.

(in thousands of dollars)

Line #		Reference	2020 Actual	2021 Forecast	2022 Proposed	2023 Forecast
1	Reported Landfill Liability - Opening Balance		$ 45,589	$ 40,408	**$ 47,956**	$ 38,809
2	Less: Disbursements During the Year		(5,181)	(1,226)	**(9,147)**	(18,308)
3	Liability Balance after Disbursements		40,408	39,182	**38,809**	20,501
4	Liability Increase/(Decrease) Required		-	8,774	**-**	-
5	**Expected Landfill Liability at Year End**		40,408	47,956	**38,809**	20,501
6	Restricted Cash - Opening Balance		27,407	23,500	**23,548**	**16,162**
7	Add: Provision Collected through Rates to Fully Fund Liability		1,274	1,274	**1,761**	1,761
8	Less: Disbursements During the Year		(5,181)	(1,226)	**(9,147)**	(18,308)
9	**Restricted Cash at Year End**		$ 23,500	$ 23,548	**$ 16,162**	$ (385)
10	**Unfunded Liability (Line 9 minus Line 5)**		(16,908)	(24,408)	**(22,647)**	(20,886)
11	Cash Balance after Disbursements	Sch. 7.0	$ 73,481	$ 70,438	**$ 56,428**	$ 32,134
12	Less: Target Cash Position (Pay As You Go + Risk)	Sch. 7.0	11,529	19,282	**25,015**	16,780
13	**Cash Over Target**	Sch. 7.0	$ 61,952	$ 51,156	**$ 31,413**	$ 15,354

The Utility anticipates closure activities such as design and construction of stormwater management, leachate collection, landfill gas collection, final clay cover, landscaping, etc. to be completed by the end of 2023. From the time of final closure, the minimum period for post-closure care is expected to be 25 years and includes operating and maintenance activities such as final cover inspection and maintenance, landfill gas collection and flare system maintenance, leachate monitoring, treatment and disposal, etc. Significant changes to cost estimates in the future may result in a future adjustment to the landfill liability and subsequently the annual landfill provision.

The reported liability for landfill closure and post-closure care on the Statement of Financial Position as at December 31, 2020 was $40.4 million, per line 5. An adjustment is required in 2021 to increase the liability by $8.8 million, per line 4. This increase is primarily associated with higher than previously anticipated costs required to control leachate migration, reduce environmental impact and comply with the Environmental Protection Act. As a result, the liability is estimated to be $48 million by the end of 2021, per line 5.

The Utility currently maintains $23.5 million in restricted cash for the landfill liability, per line 9. The amount of unfunded liability that remains to be collected from ratepayers each year based on the expected liability balance and cash disbursement for planned construction activities is shown on line 10. Including the full unfunded liability balance under the Utility's revenue requirement in any given year would result in significant rate increases for ratepayers. To mitigate this, the Utility, through its 2020 Rate Filing, received approval to collect $1.3 million annually for 25 years to fully fund the landfill liability, as shown on line 7. Collecting the required sum over the full term of the post-closure period will minimize the impact to ratepayers and allow the Utility to maintain stable, consistent rate increases while fulfilling the obligation for this liability. This provision has been increased from $1.3 million to $1.8 million in the 2022 Rate Filing to reflect the increase in the estimated liability from $40.4 million to $48.0 million.

The restricted cash of $23.5 million will be used to fund closure costs up to 2023, per line 9. The restricted cash balance in 2023 is estimated to be fully depleted after accounting for the collection of $1.8 million through rates and estimated disbursements for closure activities during the year. However, as can be observed from line 11 and line 13 of the table above, the Utility's projected cash position in each year after accounting for landfill disbursements and Pay As You Go cash required to fund capital expenditures is positive and sufficient to fulfill its estimated landfill obligations.

6. FINANCIAL RATE IMPACTS

The financial rate impacts below represent the incremental change to the Utility Rate from the previous year. The resulting rate impacts reflect the services and processes required to support the Waste Services Utility's mission, values and strategic initiatives. The rate impacts have been grouped into three categories: Operating Impacts, Capital Impacts on Operating and Other Impacts.

	2020 Approved	2021 Approved	2022 Proposed	2023 Forecast
Operating Impacts	**$ 2.24**	**$ 0.52**	**$ 0.09**	**$ 2.06**
Capital Impacts on Operating	**0.39**	**0.72**	**(0.63)**	**0.30**
Other Impacts				
Non-rate revenue	1.22	0.45	0.16	(0.27)
Increase Customer Base	(0.57)	(0.64)	(0.85)	(0.87)
Rate of Return	(3.14)	(1.05)	1.23	(0.64)
SUBTOTAL	**(2.49)**	**(1.24)**	**0.54**	**(1.78)**
TOTAL RATE IMPACTS	**$ 0.14**	**$ -**	**$ -**	**$ 0.58**

Operating Impacts

The increase in Operating Impacts from the 2021 budget includes additional external services related to customer growth, additional inspection costs associated with the Edmonton Cart Rollout and the return of temporary seasonal staff to pre-COVID levels.

Capital Impacts

The decrease in the capital impact for 2022, relative to the 2021 budget, is mainly driven by reductions to the capital budget due to the cancellation of the Organics Processing Facility project and lower requirements for Source Separated Organics initiatives and Vehicle and Equipment replacements. This reduced capital activity results in lower projected amortization expenses as well as debt and Pay As You Go (PAYG) funding requirements.

Other Impacts

- Non-rate Revenue impact is the result of decreases from other program revenue which includes revenues generated from third parties operating at the Edmonton Waste Management Centre based on agreements, such as sharing of third party sales revenues. Also included in this category are revenues generated from environmental initiatives such as the sale of Greenhouse Gas credits.

- Based on current economic conditions and housing starts, the customer base is forecast to grow in 2022. This growth allows regulated revenue to be allocated over a larger base therefore controlling the per unit Residential Customer Rate increase. The greater number of residential customers will generate higher regulated revenue which will be used to offset the associated residential waste operational costs. Regulated revenue determination for single unit customers has changed from a monthly unit rate to variable cart rates based on the size of a customer's garbage cart with the implementation of the Edmonton Cart Rollout.

- Approval of the Waste Management Utility Fiscal Policy C558B in December 2020 resulted in changes to the rate revenue calculation. A requirement for PAYG funding is now included as part of the rate revenue calculation to ensure sufficient cash is generated to meet the Utility's current and future capital needs. The Rate of Return is calculated to achieve a Net Income position to meet cash and/or PAYG targets. This places greater emphasis on long-term planning and the financial sustainability of the Utility.

7. FINANCIAL INDICATORS & RISK ALLOWANCE

The Waste Management Utility Fiscal Policy C558B was adopted by City Council on December 9, 2020. The updated policy focuses on four Financial Indicators used to monitor the financial health of the Utility as illustrated below:

		Actual	Budget	Forecast	Proposed	Forecast			
		2020	2021	2021	2022	2023	2024	2025	2026
1	**Rate Sufficient to Meet Expenditures and Cash Flow**								
	Net Income ($000s)	$ 9,071	$ 5,280	$ 18,210	$ 12,789	$ 11,191	$ 13,433	$ 10,894	$ 10,439
	Target: Positive Net Income	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*
2	**Cash Position ($000s)**								
	Pay As You Go Requirement	8,257	11,894	15,727	21,378	13,842	9,639	8,074	12,018
	Risk Allowance	3,272	3,555	3,555	3,637	2,938	2,815	2,589	3,215
	Target Cash Position	11,529	15,449	19,282	25,015	16,780	12,454	10,663	15,233
	Actual Cash Balance	73,481	31,107	70,438	56,428	32,134	30,909	33,288	39,580
	Actual Cash >= Target	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*
	Cash Over Target ($000s)	*61,952*	*15,658*	*51,156*	*31,413*	*15,354*	*18,455*	*22,625*	*24,347*
3	**Residential Customer Rate Impacts**								
	Single Unit								
	Monthly Billing Increase	$ 0.14	-	-	-	$ 0.58	$ 0.59	$ 0.49	$ 0.40
	Impact of Customer Rate	*0.3%*	*0.0%*	*0.0%*	*0.0%*	*1.2%*	*1.2%*	*1.0%*	*0.8%*
	Monthly Rate (240L Cart)	$ 47.22	$ 48.32	$ 48.32	$ 48.32	$ 48.90	$ 49.49	$ 49.98	$ 50.38
	Multi Unit								
	Monthly Billing Increase	$ 0.08	-	-	-	$ 0.37	$ 0.37	$ 0.31	$ 0.25
	Impact of Customer Rate	*0.3%*	*0.0%*	*0.0%*	*0.0%*	*1.2%*	*1.2%*	*1.0%*	*0.8%*
	Monthly Unit Rate	$ 30.69	$ 30.69	$ 30.69	$ 30.69	$ 31.06	$ 31.43	$ 31.74	$ 31.99
	Target: Stable, consistent rate increases	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*
4	**Financing of Capital Investments**								
	Debt Service Coverage Ratio	12.6%	13.5%	12.5%	13.0%	13.1%	13.3%	13.5%	13.2%
	Target: No greater than 22%	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*

7.1 Rates

On October 1, 2021, Single Unit Residential Curbside customers transitioned to variable waste rates based on their choice of garbage (black) cart size following the implementation of cart-based collection to all single unit customers. The following table outlines the proposed cart rates for 2022 and the actual adoption of garbage carts by single unit customers.

2022 Cart Rates

Garbage Cart Size (in litres)	Monthly Rate	Customer Adoption
120L	$43.32	9.75%
240L	$48.32	89.75%
360L*	$58.32	0.5%

*Available only to residents that meet unique requirements to qualify.

The variable cart rates provide financial incentives for customers who embrace waste reduction and waste sorting behaviours that reduce the amount of garbage they generate and help to achieve the City's waste diversion targets. For 2022, the difference between the 120 litre rate and the 240 litre rate will be $5 per month and the difference between the 240 litre rate and the 360 litre rate will be $10 per month. The 360 litre cart is available to households that meet specific criteria including very large households and those generating non-hazardous home healthcare waste. The above rates, taking into consideration the customer adoption rates, are designed in alignment with the rate differential discussed in the City Council approved Single Unit Waste Set-Out Business Case (CR_7173). The differential pricing allows customers to determine the amount of service they require, along with the financial flexibility associated with the variable rates.

Customers in the multi-unit sector receive communal bin or cart collection. These customers typically consist of condominium and apartment units. The residential communal collection rate is set to remain at $30.69 in 2022. The rate for customers who began transitioning from the communal collection rate to the curbside collection rate in 2020 will increase from $37.30 in 2021 to $41.27. The rate for customers who began transitioning from the communal collection rate to the curbside collection rate in 2021 will increase from $34.00 in 2021 to $37.74.

7.2 General Comments for Financial Indicators

Target: Rates Sufficient to Meet Expenditures

The proposed and forecasted years all meet the requirement of generating sufficient net income to cover operating expenses.

Target: Cash Position

The target cash position for Waste Services includes capital funding 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, as outlined in the Waste Management Utility Fiscal Policy C558B. As the Utility moves forward with the necessary upgrades for the Material Recovery Facility (MRF) and Refuse Derived Fuel Facility (RDF) to improve efficiency, the PAYG requirement is expected to remain high at $21.4 million in 2022. The calculation of the risk exposure includes the following identified risks (in thousands of dollars):

	2020 Approved	2021 Approved	2022 Proposed	2023 Forecast
Recyclable Market	$ 475	$ 475	$ 475	$ 475
Landfill gas, 3rd party	500	500	500	500
REVENUE RISKS	975	975	975	975
Anaerobic Digestion Facility	475	475	-	-
Operational Impacts Agreements/Strategic Changes	1,822	2,105	2,662	1,963
EXPENDITURE RISKS	2,297	2,580	2,662	1,963
TOTAL RISK ALLOWANCE	**3,272**	**3,555**	**3,637**	**2,938**

The allowance for operational impacts and strategic changes include provision for operational risks associated with the citywide cart rollout and implementation of source separated organics. These risks are expected to reduce over time as the Utility incorporates changes to its operations based on learnings and experiences from the Source Separated Organics program. After accounting for the

PAYG requirements and risk allowance, the cash balance is positive in all years due to the significant cash reserves held for both the Landfill Post Closure Liability and the Bremner Lagoon Liability.

Target: Stable and Consistent Utility Rates

As the Utility moves toward financial sustainability, achieving stable and consistent rates has been given a high priority. As defined in the Waste Services Utility Fiscal Policy C558B, utility rates are considered to be stable and consistent when the year over year change in rates is within ± 2% of the Consumer Price Index for the Edmonton metropolitan region. For 2022, the target will be achieved with a proposed zero per cent rate increase across all residential customer classes. To achieve this target, the utility will focus on service delivery transformations, opportunities to generate additional revenue through the sale of waste byproducts, enhanced asset optimization and operational efficiencies.

Target: Debt Service Coverage Ratio

Debt service coverage measures the ability of the Utility to meet its debt servicing obligations using annual revenues. The debt service coverage indicator is achieved when the Utility's Debt Service Coverage Ratio is not greater than 22 per cent. Based on the anticipated capital financing requirements for the Utility, the debt service ratio is expected to remain well below 22 per cent.

8. UTILITY SUMMARY SCHEDULE

(in thousands of dollars)

Line #		Reference	2020 Actual	2021 Budget	2021 Forecast	2022 Proposed	YoY $ Variance	YoY % Variance	2023 Forecast
1	Operations and Maintenance	Schedule 9.0	$ 175,120	$ 174,280	$ 169,199	**$ 176,350**	$ 7,151	4.2%	$ 184,762
2	Amortization of Non-Contributed Assets	Schedule 10.0	21,273	26,376	23,331	**24,677**	1,346	5.8%	26,011
3	Debt Interest	Schedule 10.0	8,655	9,074	8,233	**8,234**	1	0.0%	8,065
4	Intra-municipal Recoveries	Schedule 9.8	(4,668)	(3,877)	(3,072)	**(6,990)**	(3,918)	127.5%	(6,990)
5	Grants	Schedule 9.0	1,000	-	-	**-**	-	-	-
6	Amortization of Regulatory Asset	Schedule 9.0	3,249	3,906	3,906	**3,906**	-	-	3,906
	TOTAL EXPENSES		204,629	209,759	201,597	**206,177**	4,580	2.3%	215,754
7	Non-Rate Revenue	Schedule 11.1	18,999	15,234	20,751	**13,017**	(7,734)	(37.3%)	14,181
8	Rate Revenue	Schedule 11.0	194,701	199,805	199,056	**205,949**	6,893	3.5%	212,764
	TOTAL REVENUES		213,700	215,039	219,807	**218,966**	(841)	(0.4%)	226,945
	NET INCOME/(LOSS)	Schedule 13.0	$ 9,071	$ 5,280	$ 18,210	**$ 12,789**	$ (5,421)	(29.8%)	$ 11,191

Line 1 - Operations and Maintenance

The increase in operations and maintenance from the 2021 Forecast primarily reflects an increase to personnel for the return of temporary seasonal staff to pre-Covid levels. Other increases include increased utility costs required for the Anaerobic Digestion Facility and other facilities at Edmonton Waste Management Centre (EWMC), anticipated cost increases due to customer growth and increased Fleet fuel and maintenance from higher volume of seasonal yard waste pickup and inspection requirements for automated arm maintenance related to the Edmonton Cart Rollout.

Line 2 - Amortization of Non-Contributed Assets

Increases in amortization results from the commissioning of assets into service related to the Source Separated Organics Program, Refuse Derived Fuel Enhancements, Materials Recovery Facility (MRF) renewal, site infrastructure and facilities projects, and vehicle and equipment purchases.

Line 4 - Intra-municipal Recoveries

The increase in intra-municipal recoveries from the 2021 Forecast primarily reflects an increase in internal cost recoveries relating to the Commercial Collection program, Aggregates and an increase in capital recoveries. For additional details, please refer to schedule 9.8 Intra-Municipal Recoveries.

Line 6 - Amortization of Regulatory Asset

A deferral account was approved in the Utility's 2019 Rate Filing to allow the Utility to recover the incurred Edmonton Composting Facility expenses through customer rates over a reasonable time period in order to minimize the rate impact and to maintain stable and consistent utility rates.

Amortization of the regulatory asset represents the annual amount of the deferral account balance recovered through utility rates in a given period. No additions to the previously approved deferral account balances are anticipated in the 2022 Rate Filing. Please refer to schedule 10.2 for additional details.

Line 7 - Non-Rate Revenue

Decrease in non-rate revenue is related to 2021 grant revenue that reflects the transfer of appropriated funds from the tax supported Financial Stabilization Reserve to the Utility in order to fully write off the notional non-regulated loan which was approved by City Council on July 05, 2021. No grant revenue is forecasted for 2022. Also, MRF revenues are anticipated to be lower in 2022 for a period of time when planned upgrades to improve processing efficiencies are made to the facility. This is partially offset by increased rental revenue and Eco Station revenue.

Line 8 - Rate Revenue

Increase in rate revenue is primarily driven by Pay As You Go requirements to support capital, additional requirements to fund landfill liability, additional requirements to support growth in customer base, and increased processing and diversion of waste from landfill.

Further detailed analysis of proposed expenditures and revenues are provided in subsequent schedules.

9. OPERATIONS & MAINTENANCE

(in thousands of dollars)

Line #		Reference	2020 Actual	2021 Budget	2021 Forecast	2022 Proposed	YoY $ Variance	YoY % Variance	2023 Forecast
1	Personnel	Schedule 9.1	$ 48,142	$ 51,228	$ 47,432	**$ 51,060**	$ 3,628	7.6%	$ 52,110
2	Materials, Goods & Supplies	Schedule 9.2	3,083	2,986	3,235	**3,793**	558	17.2%	3,222
3	External Services	Schedule 9.3	86,688	81,581	77,533	**81,140**	3,607	4.7%	87,979
4	Fleet Services	Schedule 9.4	15,880	16,104	13,895	**15,727**	1,832	13.2%	16,102
5	Shared Services	Schedule 9.5	9,773	10,024	10,024	**10,083**	59	0.6%	10,264
6	Intra-municipal Services	Schedule 9.6	5,484	5,351	5,451	**5,742**	291	5.3%	5,929
7	Utilities	Schedule 9.7	3,989	5,144	3,908	**5,176**	1,268	32.4%	5,494
8	Other Expenses		2,081	1,862	7,721	**3,629**	(4,092)	(53.0%)	3,662
	TOTAL O&M EXPENSES		175,120	174,280	169,199	**176,350**	7,151	4.2%	184,762
9	Intra-municipal Recoveries	Schedule 9.8	(4,668)	(3,877)	(3,072)	**(6,990)**	(3,918)	127.5%	(6,990)
	RECOVERIES		(4,668)	(3,877)	(3,072)	**(6,990)**	(3,918)	127.5%	(6,990)
10	Amortization of Non-Contributed Assets	Schedule 10.0	21,273	26,376	23,331	**24,677**	1,346	5.8%	26,011
11	Amortization of Regulatory Asset	Schedule 10.2	3,249	3,906	3,906	**3,906**	-	-	3,906
12	Debt Interest	Schedule 10.0	8,655	9,074	8,233	**8,234**	1	0.0%	8,065
	EXPENSES BEFORE ONE-TIMES		203,629	209,759	201,597	**206,177**	4,580	2.3%	215,754
13	Grants		1,000	-	-	**-**	-	-	-
	NET EXPENSES		$ 204,629	$ 209,759	$ 201,597	**$ 206,177**	$ 4,580	2.3%	$ 215,754

Line 8 - Other Expenses

Other expenses primarily include insurance premiums associated with waste collection and processing facilities at the EWMC and Eco Stations, bad debt expense and service charges for credit/debit card processing at the EWMC scalehouse and Eco Stations. The 2021 forecast includes a one-time non-cash adjustment to write-off incurred project costs following City Council's approval to not pursue the Organics Processing Facilities (OPF) capital project (August 16, 2021 - CO00430).

Line 13 - Grants

Grants reflected are flow through, received from Alberta Innovates Energy and Environment Solutions and disbursed to the owner of the Edmonton Waste to Biofuels and Chemical Facility upon achievement of contractual milestones. The net operating impact of these grants is zero with the offset in grant revenue (Schedule 11.1). No additional grant for this facility is expected in 2022. For additional details, please refer to the schedule for each line.

9.1 PERSONNEL

(in thousands of dollars)

Line #		2020 Actual	2021 Budget	2021 Forecast	2022 Proposed	YoY $ Variance	YoY % Variance	2023 Forecast
1	Wages	$ 34,329	$ 38,117	$ 39,214	**$ 40,668**	$ 1,454	3.7%	$ 41,613
2	Overtime	636	1,423	1,185	**1,455**	270	22.8%	1,470
3	Allowances and Benefits	13,177	11,688	7,033	**8,937**	1,904	27.1%	9,027
	TOTAL PERSONNEL	$ 48,142	$ 51,228	$ 47,432	**$ 51,060**	$ 3,628	7.6%	$ 52,110

Personnel costs include Wages, Overtime, Employment Allowances and Benefits. The City of Edmonton's Capital and Operating Budget System (COBS) utilizes the City's payroll system as the source for the personnel budget for both wages and benefits, thereby providing a reliable and consistent source of information. Vacant positions are set at mid-range with family benefits. Included in the 2022 Proposed Budget is an assumption of a vacancy discount of four per cent for all positions.

Line 1 - Wages

Wages are expected to increase over the 2021 forecast with the return of temporary seasonal staff to pre-Covid levels.

Line 2 - Overtime

Overtime is expected to increase over the 2021 forecast primarily to support the implementation of the diversion targets and due to the additional requirements for the seasonal grass, leaf and yard waste collection.

Line 3 - Allowances and Benefits

Benefits mainly consist of Local Authorities Pension Plan (LAPP), Canada Pension Plan, Employment Insurance, Major Medical and Dental Plan, Group Life Insurance and Health Care Spending Account.

9.2 MATERIALS, GOODS & SUPPLIES

(in thousands of dollars)

Line #		2020 Actual	2021 Budget	2021 Forecast	2022 Proposed	YoY $ Variance	YoY % Variance	2023 Forecast
1	Collection Services	$ 381	$ 1,261	$ 1,365	**$ 1,402**	$ 37	2.7%	$ 1,428
2	Organics	163	201	201	**206**	5	2.5%	209
3	Integrated Processing & Transfer Operations	116	133	133	**133**	-	-	136
4	Haul and Landfill Operations	88	70	70	**70**	-	-	71
5	Other	2,335	1,321	1,466	**1,982**	516	35.2%	1,378
	TOTAL MATERIALS, GOODS & SUPPLIES	$ 3,083	$ 2,986	$ 3,235	**$ 3,793**	$ 558	17.2%	$ 3,222

Line 5 - Other

The increase in Other from the 2021 Forecast is primarily related to an increase in hired equipment costs for the Aggregates program resulting from higher contract rates.

9.3 EXTERNAL SERVICES

(in thousands of dollars)

Line #		2020 Actual	2021 Budget	2021 Forecast	2022 Proposed	YoY $ Variance	YoY % Variance	2023 Forecast
1	Waste Collection Services	$ 25,289	$ 27,281	$ 28,163	**$ 28,295**	$ 132	0.5%	$ 28,784
2	Materials Recovery Facility	9,813	9,232	9,232	**8,948**	(284)	(3.1%)	9,787
3	Organics	18,453	8,981	11,640	**11,794**	154	1.3%	11,924
4	Integrated Processing & Transfer Operations	8,942	8,905	7,448	**8,095**	647	8.7%	13,325
5	Haul and Landfill Operations	15,062	15,450	14,480	**14,620**	140	1.0%	14,648
6	Customer Billing Services	4,501	4,511	4,511	**5,011**	500	11.1%	5,061
7	Other	4,628	7,221	2,059	**4,377**	2,318	112.6%	4,450
	TOTAL EXTERNAL SERVICES	$ 86,688	$ 81,581	$ 77,533	**$ 81,140**	$ 3,607	4.7%	$ 87,979

Line 1 - Waste Collection Services

Collection Services external contracts include single unit residential garbage, recycling, organics and seasonal yard waste collection. It also includes multi-unit residential garbage and recycling collection as well as costs for contracted equipment, services at the Eco Stations and other Collection Services programs.

Contract work is anticipated to increase due to population growth and increased waste volume. Current contracts are adjusted annually using a cost index that includes CPI, fuel and labour to better reflect annual changes in direct operating costs.

Line 2 - Materials Recovery Facility

The Materials Recovery Facility (MRF) sorts and processes recyclables collected through the blue bag and recycling depot programs. A small reduction from the 2021 Forecast is the result of a planned upgrade to the plant, resulting in anticipated lower operating costs.

Line 3 - Organics

Contracted organics costs include operations and maintenance cost for the High Solids Anaerobic Digestion Facility (HSADF) allowing for approximately 40,000 tonnes per year of organic material to be processed and diverted from landfill. In addition, the projected cost in 2022 includes cost for processing organics under a number of distributed off site processing

contracts with the private sector, allowing for an additional 42,000 tonnes per year to be processed and diverted from landfill for the next five years.

Line 4 - Integrated Processing & Transfer Operations (IPTF)

Feedstock for waste-to-biofuels or waste-to-energy applications is prepared at the Refuse Derived Fuel facility (RDF), located within the IPTF. Waste Services pays a contractually agreed upon fee to the Waste to Biofuels and Chemicals Facility for the conversion of feedstock into alcohol fuels. The fee includes a tipping fee for the delivery of acceptable feedstock to the facility. In 2021 the Waste to Biofuels and Chemicals Facility required less feedstock from the RDF due to an unplanned shutdown. It is anticipated that more feedstock will be required in 2022 resulting in higher contract costs than in 2021 and similar contract costs to those incurred in prior years.

Line 5 - Haul and Landfill Operations

Hauling and Landfill Operations represents the contract fees for all of Waste Services Utility operations. The increase from the 2021 forecast is related to yearly escalating contract costs.

Line 6 - Customer Billing Services

Waste Services has a contract with EPCOR for the provision of customer billing and collection services. EPCOR replaced its billing system with a modern cloud based system in 2020, and the new system is expected to provide a more streamlined billing service. A new contract takes effect in 2022.

Line 7 - Other

The increase in Other contract costs from the 2021 forecast is primarily related to additional operating costs for the Waste Characterization Study, Household Hazardous Waste disposal, general maintenance of the Compost S'Cool, education and outreach and implementation of the digital strategy. Contract costs related to Community Relations and Program Management, Engineering Analysis, Administrative Services, and other facilities such as Edmonton Waste Services Centre Operations, Advanced Energy Research Facility, Research & Development and Environmental are also included under Other.

9.4 FLEET SERVICES

(in thousands of dollars)

Line #		2020 Actual	2021 Budget	2021 Forecast	2022 Proposed	YoY $ Variance	YoY % Variance	2023 Forecast
1	Fleet Reserve Contribution	-	$ 66	$ (11)	**$ 66**	$ 77	(700.0%)	$ 67
2	Fuel	3,379	4,110	3,260	**4,311**	1,051	32.2%	4,471
3	Direct Charge & Repairs	12,501	11,928	10,646	**11,350**	704	6.6%	11,564
	TOTAL FLEET SERVICES	$ 15,880	$ 16,104	$ 13,895	**$ 15,727**	$ 1,832	13.2%	$ 16,102

As Fleet Services recovers 100 per cent of branch costs, a portion of indirect branch overhead is charged to Waste Services. The indirect overhead is allocated through work order fees, vendor work charges and fuel surcharges. The remaining overhead costs are recovered through shop rates on shop labour hours. Indirect overhead includes branch administration, training, engineering, procurement, safety, client relations and facility and equipment maintenance. Estimates for Fuel and Direct Charges & Repairs are estimated by Fleet Services in consultation with Waste Services and aligned with Fleet Services four-year operating budget.

Funding for Waste Services vehicle and equipment replacements are incorporated into the Waste Services capital program instead of the Fleet Services Reserve. As older equipment purchased by Fleet Services gets replaced, the remaining reserve contribution will be exhausted.

In 2021, higher summer temperatures and lower amounts of rainfall reduced the overall volume of grass clippings and seasonal yard waste generated in Edmonton. Lower amounts of grass clippings and yard waste corresponded to fewer amounts of waste to collect, process, or transfer; resulting in lower fuel consumption. The increase in fuel from the 2021 Forecast reflects an anticipated increase in fuel requirements to previously estimated levels to support an increased volume of seasonal yard waste pickup in 2022.

The increase in Direct Charge & Repairs from 2021 Forecast reflects anticipated increased inspection requirements for automated arm maintenance related to the Edmonton Cart Rollout.

9.5 SHARED SERVICES

(in thousands of dollars)

Line #		2020 Actual	2021 Budget	2021 Forecast	2022 Proposed	YoY $ Variance	YoY % Variance	2023 Forecast
1	Corporate Allocation (Central Management)	$ 1,848	$ 2,155	$ 2,155	**$ 2,155**	-	-	$ 2,194
2	Communications & Public Engagement	480	482	482	**482**	-	-	491
3	Financial Services	1,968	1,865	1,865	**1,865**	-	-	1,899
4	Safety	149	181	181	**181**	-	-	184
5	Customer Information Services	563	565	565	**565**	-	-	575
6	Human Resources	1,060	1,027	1,027	**1,027**	-	-	1,045
7	Law	287	291	291	**291**	-	-	296
8	Corporate Procurement and Supply Services	533	587	587	**587**	-	-	598
9	Information Technology	2,095	2,071	2,071	**2,071**	-	-	2,108
10	Real Estate & Housing	790	800	800	**859**	59	7.4%	874
	TOTAL SHARED SERVICES	$ 9,773	$ 10,024	$ 10,024	**$ 10,083**	$ 59	0.6%	$ 10,264

The City of Edmonton employs a Shared Services model whereby support services required for the operations of all City businesses are provided through centralized areas of expertise. This approach takes advantage of efficiencies gained through economies of scale and opportunities to provide more robust systems and services (e.g. technology related services). The Waste Services Utility Fiscal Policy C558B requires that the utility operate under a full cost approach requiring the utility to pay for its portion of shared services.

In the 2020 Rate Filing, the Utility committed to initiating a benchmarking study to validate the reasonableness of shared service costs allocated to the Utility. The Utility engaged a third-party consultant to conduct this benchmarking study during 2021. The study compared shared services costs charged to similar sized Utilities by municipalities that participated in the benchmarking study. Overall, the study concluded that the shared services costs allocated to the City of Edmonton Waste Services Utility was reasonable and within acceptable range, please see Appendix C - Affiliate Transactions Benchmarking Study.

The increase from the 2021 forecast primarily reflects increased lease costs for the Coronation Eco Station.

9.6 INTRA-MUNICIPAL SERVICES

(in thousands of dollars)

Line #		2020 Actual	2021 Budget	2021 Forecast	2022 Proposed	YoY $ Variance	YoY % Variance	2023 Forecast
1	Communications & Public Engagement	$ 726	$ 808	$ 808	**$ 809**	$ 1	0.1%	$ 823
2	Human Resources	87	135	135	**135**	-	-	137
3	Law	420	364	364	**521**	157	43.1%	530
4	Corporate Procurement and Supply Services	329	330	330	**330**	-	-	337
5	Transportation Operations	108	83	83	**83**	-	-	85
6	Facilities and Landscape Infrastructure	-	1,852	1,852	**1,853**	1	0.1%	1,886
7	Other	3,814	1,779	1,879	**2,011**	132	7.0%	2,131
	TOTAL INTRA-MUNICIPAL SERVICES	$ 5,484	$ 5,351	$ 5,451	**$ 5,742**	$ 291	5.3%	$ 5,929

Intra-Municipal Services are charges for on-demand services provided through other City of Edmonton programs which are not incorporated in shared services charges. These are direct charges for services such as dedicated support for communication and engagement initiatives, on demand building repairs and maintenance, posting of vacant positions to job sites and security services for special events.

Line 3 - Law

The increase in direct charges from the 2021 Forecast is related to an increase in legal support in 2022.

Line 7 - Other

The increase in Other costs from the 2021 forecast is primarily related to Aggregates crushing. Increase in Aggregates costs are fully offset by higher Aggregates revenues reported on line 7 Other Program Revenues under Schedule 11.1.

9.7 UTILITIES

(in thousands of dollars)

Line #		2020 Actual	2021 Budget	2021 Forecast	2022 Proposed	YoY $ Variance	YoY % Variance	2023 Forecast
1	Power	$ 2,528	$ 3,097	$ 1,810	**$ 3,127**	$ 1,317	72.8%	$ 3,410
2	Natural Gas	1,104	1,533	1,658	**1,523**	(135)	(8.1%)	1,550
3	Water	92	154	154	**154**	-	-	156
4	Other	265	360	286	**372**	86	30.1%	378
	TOTAL UTILITIES	$ 3,989	$ 5,144	$ 3,908	**$ 5,176**	$ 1,268	32.4%	$ 5,494

Power, natural gas and water estimates are provided by Urban Planning and Economy, Economic and Environmental Sustainability. Estimates are based on historical consumption and future forecasted rates for current service levels. Service level changes are applied to the estimates to determine the budget numbers for each utility.

Line 1 - Power

Increase in power costs as a result of:	2022
High Solids Anaerobic Digestion Facility	**$ 579**
Integrated Process Transfer Facility	**133**
EWMC Site Operations and Maintenance	**185**
Refuse Derived Fuel Facility (production of feedstock)	**293**
Other	**127**
Total	**$ 1,317**

9.8 INTRA-MUNICIPAL RECOVERIES

(in thousands of dollars)

Line #		2020 Actual	2021 Budget	2021 Forecast	2022 Proposed	YoY $ Variance	YoY % Variance	2023 Forecast
1	Litter Collection Recovery	$ (1,922)	$ (850)	$ (850)	**$ (850)**	-	-	(865)
2	Landfill Disposal Fees	(777)	(470)	(770)	**(1,600)**	$ (830)	107.8%	(1,957)
3	Charges to Capital & Other	(1,969)	(2,557)	(1,452)	**(4,540)**	(3,088)	212.7%	(4,168)
	TOTAL INTRA-MUNICIPAL RECOVERIES	$ (4,668)	$ (3,877)	$ (3,072)	**$ (6,990)**	$ (3,918)	127.5%	$ (6,990)

Intra-Municipal Recoveries are billings to other areas within the City of Edmonton for services provided by the Waste Services Utility. These recoveries include direct charges such as litter collection charged to Capital City Clean-Up and charges to other City of Edmonton areas for disposal of waste at the Edmonton Waste Management Centre and for the purchase of Aggregates.

Line 2 - Landfill Disposal Fees

The change in landfill disposal fees from the 2021 forecast is related to cost recoveries from the Commercial Collection program. In 2022 Waste Services will collect commercial waste from City of Edmonton owned facilities. In the past, Commercial Collection revenues were listed under table 11.1 Non-Rate Revenues, however, with the full wind-down of this business line in 2021 no external revenues are anticipated going forward and as a result cost recoveries for services provided to City owned facilities have been reclassified and listed here starting in 2022.

Line 3 - Charges to Capital & Other

The change in charges to capital and other from the 2021 forecast is related to increased recoveries from internal sales of Aggregates and an increase in capital recoveries. Internal Aggregates recoveries are anticipated to be higher to offset the increase in costs related to the program. As in-house engineers work on capital projects, a portion of their time is capitalized to the project(s) instead of being charged to operating expenses.

10. AMORTIZATION & INTEREST EXPENSE

(in thousands of dollars)

Line #		2020 Actual	2021 Budget	2021 Forecast	2022 Proposed	2023 Forecast
1	Amortization of Non-Contributed Assets	$ 21,273	$ 26,376	$ 23,331	**$ 24,677**	$ 26,011
2	Amortization of Contributed Assets	1,362	1,326	1,347	**1,291**	1,162
	TOTAL AMORTIZATION OF ASSETS	$ 22,635	$ 27,702	$ 24,678	**$ 25,968**	$ 27,173
3	Long-Term Interest - Existing Borrowing	$ 8,519	$ 8,962	$ 8,217	**$ 7,708**	$ 6,931
4	Long-Term Interest - Proposed Borrowing	-	-	16	**526**	1,134
		8,519	8,962	8,233	**8,234**	8,065
5	Short-Term Interest	136	112	-	-	-
	TOTAL INTEREST EXPENSE	$ 8,655	$ 9,074	$ 8,233	**$ 8,234**	$ 8,065
	COST OF DEBT					
6	Long-Term Debt Principal Repayment - Existing Borrowing	$ 18,251	$ 20,174	$ 18,731	**$ 19,132**	$ 19,785
7	Long-Term Debt Principal Repayment - Proposed Borrowing	-	-	558	**1,074**	1,930
		18,251	20,174	19,289	**20,206**	21,715
8	Short-Term Debt Principal Repayment	1,592	1,820	7,611	-	-
	TOTAL PRINCIPAL REPAYMENTS	$ 19,843	$ 21,994	$ 26,900	**$ 20,206**	$ 21,715
9	Long-Term Debt Balance - Existing Borrowing	$ 205,720	$ 230,007	$ 201,335	**$ 215,734**	$ 211,742
10	Long-Term Debt Balance - Proposed Borrowing	14,346	37,003	33,531	**15,793**	23,949
	TOTAL LONG-TERM DEBT BALANCE	$ 220,066	$ 267,010	$ 234,866	**$ 231,527**	$ 235,691
	MID-YEAR LONG-TERM DEBT BALANCE	$ 222,019	$ 258,596	$ 227,466	**$ 233,197**	$ 233,609

Amortization expense represents the amount of asset life used during a given operating period. The rate of amortization is dependent upon the asset class, each with a predetermined estimated useful life based upon historical experience. Waste Services Utility's assets are divided into 47 different classes with useful lives varying between three years and extending up to 60 years. Amortization expense is calculated using the straight-line method which incurs half year expenses in the first and last year of the asset's life.

Interest expense includes both interest for Government of Alberta (GOA) (formerly the Alberta Capital Financing Authority) debentures related to capital projects, as well as interest on short-term

loans from the City of Edmonton, which has ended in 2020 as outlined in Schedule 10.1. Projected rates are provided by the City of Edmonton's Corporate Accounting and Reporting and are based on recent GOA rates and economic conditions (see section 3.0 Methodology and Key Assumptions).

Line 1 - Amortization of Non-Contributed Assets

The annual increases in amortization results from the commissioning of assets into service related to the Source Separated Organics Program, Refuse Derived Fuel Enhancements, Materials Recovery Facility (MRF) renewal, site infrastructure and facilities projects, and vehicle and equipment purchases. The majority of existing assets will not reach the end of their useful life for several more years.

Line 2 - Amortization of Contributed Assets

Amortization of Contributed Assets represents the amount of benefit from assets which were received or funded by third parties. The amortization from contributed assets decreases the amount of total amortization expense for the Waste Services Utility. This amortization represents benefits received from the Advanced Energy Research Facility (AERF) and upcoming commissioning of projects related to the Alberta Clean Energy Technology Accelerator, both partially funded by Alberta Innovates, and a large portion of the Edmonton Waste Management Centre Site 440 construction funded by an external third party. The amortization reflects a gradual decrease until 2024 as assets from the AERF reach the end of their useful lives.

Lines 5 and 8 - Short-Term Interest and Short-Term Debt Principal Repayments

Refer to Schedule 10.1 for additional details.

10.1 SHORT-TERM LOAN FROM THE CITY OF EDMONTON

(in thousands of dollars)

Line #		2020 Actual	2021 Budget	2021 Forecast	2022 Proposed	2023 Forecast
1	**Loan To Cover Non-Regulated Program Losses and Maintain Cash Flow**					
	Beginning Balance	$ 9,067	$ 7,307	$ 7,611	-	-
	Draw	-	-	-	-	-
	Principal	1,592	1,820	7,611	-	-
	Interest	136	112	-	-	-
	Ending Balance	$ 7,611	$ 5,487	-	-	-

Line 1 - Loan to Cover Non-Regulated Program Losses and Maintain Cash Flow

To address non-regulated program losses and achieve target cash balances, the Waste Services Utility was given authorization to draw on a notional short-term loan from the City of Edmonton from 2015 to 2019. This ensured that non-regulated program losses were covered by the loan as opposed to regulated revenues and assisted in reducing non-regulated rate increases. Principal and interest (1.5%) was paid annually from the first draw in 2015. Interest payments were reflected entirely within non-regulated program expenses.

As of December 31, 2020, the outstanding notional short-term loan balance was $7.6 million which provided financing for the cumulative losses generated by the non-regulated lines of business. On July 5, 2021, City Council approved the full notional loan forgiveness for the non-regulated loan repayment, as outlined in the City Operations report CO00582.

10.2 DEFERRAL ACCOUNT BALANCES

(in thousands of dollars)

Line #		Recovery Period (Years)	2019 Actual	2020 Actual	2021 Budget	2021 Forecast	2022 Proposed	2023 Forecast
1	**Opening Deferral Balance (Regulatory Asset)**		-	$ 14,404	$ 26,670	$ 26,670	**$ 26,051**	$ 22,145
	Additions (Previously Approved)							
2	2017 Initial Impairment of ECF Structure	12	$ 15,713	-	-	-	-	-
3	2019 Impairment of ECF Equipment	8	-	5,015	-	-	-	-
4	2019 ECF Deconstruction *	8	-	10,500	-	-	-	-
5	2020 Impairment of Unsalvagable ECF Equipment	5		-	$ 3,287	$ 3,287	-	-
6	**Deferral Additions During the Year**		$ 15,713	$ 15,515	$ 3,287	$ 3,287	-	-
7	**Deferral Balance Including Additions**		15,713	29,919	29,957	29,957	**26,051**	22,145
	Amortization of Regulatory Asset							
8	2017 Impairment (Line 2)	12	1,309	1,309	1,309	1,309	**1,309**	1,309
9	2019 Impairment (Line 3)	8	-	627	627	627	**627**	627
10	ECF Deconstruction (Line 4)	8	-	1,313	1,313	1,313	**1,313**	1,313
11	2020 Impairment (Line 5)	5		-	657	657	**657**	657
12	**Total Amortization of Regulatory Asset**		$ 1,309	$ 3,249	$ 3,906	$ 3,906	**$ 3,906**	$ 3,906
13	**Closing Deferral Balance (Regulatory Asset)**		$ 14,404	$ 26,670	$ 26,051	$ 26,051	**$ 22,145**	$ 18,239

*In the 2019 Rate Filing, an estimated provision of $1.5 million was included for demolition cost in the approved deferral account balance of $15.7 million (on line 2). The required deferral account addition for deconstruction cost (on line 4) has therefore been reduced by $1.5 million for calculating rates from the current deconstruction cost estimate of $12 million.

The Waste Services deferral account is a rate regulated accounting mechanism which allows the Utility to minimize rate volatility for ratepayers, by recovering approved cost from ratepayers over a period of time compared to when the costs are actually incurred. This results in the Utility recording a regulatory asset for the deferral account balances, which is amortized over a reasonable time period to allow the Utility to recover costs from ratepayers while ensuring rate stability. For Waste Services, the deferral account balances are primarily related to asset write down cost and demolition cost resulting from the structural failure of the Edmonton Composting Facility (ECF) which was approved to be deferred and recovered from ratepayers.

For the 2022 rate filing, there are no new additions to the previously approved deferral account balances.

Lines 2 - 5: Impairment of Edmonton Composting Facility (ECF) & Deconstruction Cost

Line 2 - During 2017, structural issues associated with the Aeration Hall roof were identified resulting in an initial financial impairment of $15.7 million. Waste Services received approval to create a deferral account for this impairment through its 2019 Rate Filing and recover it over a period of 12 years to minimize impact to ratepayers.

Lines 3 and 4 - In spring 2019, it was concluded that the facility was no longer safe to continue operating and to begin the shut down process to permanently decommission the facility. This decision was based on a structural scan and in collaboration with external structural engineers. As a result, there was an additional impairment related to unsalvageable equipment of $5 million. In addition, the facility deconstruction cost was estimated at $12 million (of which $1.5 million was previously accounted for). Waste Services received approval to incorporate the 2019 impairment and remaining deconstruction cost as additions to the previously approved deferral account balances through its 2020 rate filing. These costs are recovered over a period of 8 years to minimize impact to ratepayers.

Line 5 - The initial impairment of ECF equipment recorded in 2019 excluded $3.3 million worth of equipment that was expected to be salvaged and repurposed for interim organics processing. During the course of deconstruction it became clear that the option to salvage the equipment was cost prohibitive and increasingly challenging to achieve the desired outcome. An impairment of $3.3 million was recorded at the end of 2020 related to these equipment and was subsequently approved as additions to the previously approved deferral account balances through the 2021 rate filing to minimize impact to ratepayers.

Lines 8 - 11: Amortization of Regulatory Asset

The amortization of the regulatory asset represents the annual amount of the deferral balance recovered through Utility rates. The amortization period used for the regulatory asset closely matches the remaining useful life of the original asset, and in the case of decommissioning costs a reasonable time period was selected that minimizes rate impact while balancing inter-generational equity. The Utility will monitor its deferral account balances for appropriate additions or adjustments to the amortization periods when justified.

11. REVENUE REQUIREMENT

(in thousands of dollars)

Line #		Reference	2020 Actual	2021 Budget	2021 Forecast	2022 Proposed	2023 Forecast
1	**O&M Expenses and Grants**	Schedule 9.0	$ 176,120	$ 174,280	$ 169,199	**$ 176,350**	$ 184,762
2	Intra-municipal Recoveries	Schedule 9.0	(4,668)	(3,877)	(3,072)	**(6,990)**	(6,990)
	Net Operations and Maintenance Expenses		171,452	170,403	166,127	**169,360**	177,772
3	Amortization of Non-Contributed Assets	Schedule 9.0	21,273	26,376	23,331	**24,677**	26,011
4	Amortization of Regulatory Asset	Schedule 10.2	3,249	3,906	3,906	**3,906**	3,906
5	Debt Servicing - Total Interest	Schedule 9.0	8,655	9,074	8,233	**8,234**	8,065
	Total Net Expense		204,629	209,759	201,597	**206,177**	215,754
6	**Return on Rate Base**	Schedule 11.3	9,071	5,280	18,210	**12,789**	11,191
	Total Revenue Requirement		213,700	215,039	219,807	**218,966**	226,945
7	Less Non-Rate Revenues	Schedule 11.1	18,999	15,234	20,751	**13,017**	14,181
	TOTAL RATE REVENUE REQUIRED		$ 194,701	$ 199,805	$ 199,056	**$ 205,949**	$ 212,764

Waste Services Utility Fiscal Policy C558B was adopted by City Council on December 9, 2020. As per this policy, "at a minimum, the projected total revenue generated will be equal to the projected expenses for the year. The Utility is to generate positive net income and sufficient cash flow to cover current year expenses, working capital requirements, and to facilitate the funding for renewal and replacement of its capital assets." Costs associated with contributed capital, such as amortization, are excluded as these are not eligible to be funded through regulated utility rates.

11.1 NON-RATE REVENUE

(in thousands of dollars)

Line #		2020 Actual	2021 Budget	2021 Forecast	2022 Proposed	YoY $ Variance	YoY % Variance	2023 Forecast
1	Program Revenues - Tip Fees	$ 4,883	$ 5,151	$ 3,511	**$ 3,681**	$ 170	4.8%	$ 3,686
2	Program Revenues - C&D Waste	175	270	270	**270**	-	-	275
3	Program Revenues - Materials Recovery Facility	1,332	1,257	1,997	**1,000**	(997)	(49.9%)	1,921
4	Program Revenues - Commercial Collection	4,297	-	$1,500	**-**	(1,500)	(1)	-
5	Program Revenues - Eco Stations	2,646	3,700	3,700	**3,841**	141	3.8%	3,910
6	Program Revenues - Other	3,452	3,755	2,005	**3,923**	1,918	95.7%	4,082
7	Investment Earnings	773	1,101	156	**302**	146	93.6%	307
8	Grants	1,441	-	$ 7,612	**-**	(7,612)	(100.0%)	-
	TOTAL NON-RATE REVENUE	$ 18,999	$ 15,234	$ 20,751	**$ 13,017**	$ (7,734)	(37.3%)	$ 14,181

Line 1 - Tip Fees Revenue

Tip Fee Revenues are generated from private haulers disposing of waste materials at the EWMC.

Line 2 - Construction and Demolition (C&D) Waste Revenue

Processing of C&D waste and operations of the C&D facility is provided by a third-party based on the strategic direction to exit the C&D non-regulated business line. The revenues forecasted for C&D relate to royalties received from the third-party operating the facility.

Line 3 - Materials Recovery Facility Revenue

Materials Recovery Facility (MRF) revenue from the sale of recyclable materials are highly influenced by both the commodities market and the US exchange rate. MRF revenues are anticipated to be lower in 2022 for a period of time when planned upgrades to improve processing efficiencies are made to the facility.

Line 4 - Commercial Collection Revenue

Commercial Collection is anticipated to be fully wound down in 2021 based on the strategic direction to exit this business line. Waste Services will continue to provide waste collection services to City of Edmonton owned facilities. The internal cost recovery for providing this service is listed under table 9.8 Intra-Municipal Recoveries.

Line 5 - Eco Stations Revenue

Continued growth in Eco Station usage results in an anticipated revenue increase in 2022 and beyond.

Line 6 - Other Program Revenue

Other Program Revenue includes revenues generated from third parties operating at the Edmonton Waste Management Centre based on agreements, which includes sharing of third party sales revenues. Also included in this category are revenues generated from environmental initiatives such as Aggregates crushing. The increase from the 2021 forecast is related to third party rental revenue from the AERF.

Line 7 - Investment Earnings

Investment earnings include short-term interest payments received on existing cash balances. Interest earned is expected to decline in the coming years due to the current economic environment with lower interest rates and as the amount of restricted cash held for the Landfill Post Closure Liability and the Bremner Lagoon Liability are reduced. There is a small increase over the 2021 Forecast as interest rates are expected to be slightly higher in 2022.

Line 8 - Grants

2021 Grant revenue reflects the transfer of appropriated funds from the tax supported Financial Stabilization Reserve to the Utility in order to fully write off the notional non-regulated loan which was approved by City Council on July 05, 2021. No grant revenue is forecasted for 2022.

11.2 CALCULATION OF RATE BASE

(in thousands of dollars)

Line #		2020 Actual	2021 Budget	2021 Forecast	2022 Proposed	2023 Forecast
1	**Investments in Tangible Capital Assets**					
	Gross Book Value - Non Contributed	$ 545,213	$ 663,584	$ 603,289	**$ 635,882**	$ 683,140
	Gross Book Value - Contributed	30,138	30,013	31,655	**41,958**	45,958
	Gross Book Value - All Assets	575,351	693,597	634,944	**677,840**	729,098
	Accumulated Depreciation - Non Contributed	267,358	319,999	290,343	**315,020**	341,031
	Accumulated Depreciation - Contributed	10,088	11,414	11,435	**12,726**	13,888
	Accumulated Depreciation - All Assets	277,446	331,413	301,778	**327,746**	354,919
	Net Book Value - Non Contributed	277,855	343,585	312,946	**320,862**	342,109
	Net Book Value - Contributed	20,050	18,599	20,220	**29,232**	32,069
	Net Book Value - All Assets	$297,905	$362,184	$333,166	**$350,094**	$374,178
	Mid-Year Non-Contributed Assets	273,135	329,529	295,400	**316,904**	331,485
2	Cash Flow Requirement					
	One Month Operations	16,180	16,351	15,670	**16,204**	17,031
	RATE BASE AT MID YEAR	$ 289,315	$ 345,880	$ 311,070	**$ 333,108**	$ 348,516

11.3 RETURN ON RATE BASE

(in thousands of dollars)

Line #		2020 Actual	2021 Budget	2021 Forecast	2022 Proposed	2023 Forecast
1	**Mid-Year Rate Base**	$ 289,315	$ 345,880	$ 311,070	**$ 333,108**	$ 348,516
	Mid-Year Capital Structure					
2	Debt	76.7%	74.8%	73.1%	**70.0%**	67.0%
3	Equity	23.3%	25.2%	26.9%	**30.0%**	33.0%
	Cost Rates					
4	Debt	2.9%	2.6%	2.6%	**2.5%**	2.3%
5	Equity	3.1%	1.5%	5.9%	**3.8%**	3.2%
	Weighted Average Cost of Debt	3.0%	2.3%	3.5%	**2.9%**	2.6%
	Return on Rate Base					
6	Debt	8,519	8,962	8,233	**8,234**	8,065
7	Equity	9,071	5,280	18,210	**12,789**	11,191
	Total Return	$ 17,590	$ 14,242	$ 26,443	**$ 21,023**	$ 19,256

Return on Rate Base is the net income/(loss) as a percentage of the Mid-Year Rate Base. The positive return on rate base is indicative of Waste Services Utility's increased focus on working towards financial sustainability and the need to meet Pay As You Go capital requirements.

12. CAPITAL BUDGET & FORECAST PLAN

CAPITAL PROJECT SUMMARY

As part of the 25-year Waste Strategy and the 2022-2025 Business Plan, the utility has placed greater emphasis on delivering strategic program changes through focused prioritization and realignment of its capital plan. In an effort of continuous improvement and response to audit recommendations, significant improvements have been made in the capital program over 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 ensuring sustainability and growth in assets, and to meet the regulatory requirements through proper program planning and delivery.

In the current budget cycle, a total of $161.5 million has been allocated to 16 capital profiles. This includes funding for the significant, multi-year, critical profiles such as Source Separated Organics, Facility and Infrastructure Construction and Upgrades and Vehicle and Equipment Replacement.

Moving forward, the branch's capital program will continue to follow the developed best practices that appropriately balance growth, process efficiency improvements, rehabilitation and regulatory requirements. An asset management philosophy focused on safety, reliability and risk management has been incorporated into future capital planning by implementing a percentage of asset replacement value into the capital plan. This ensures proactive maintenance and repair based on asset condition assessment, safety, security and environmental requirements.

(in thousands of dollars)

		Current Budget Cycle					Forecast						
Line #	Capital Projects	2019	2020	2021	2022	2019-2022 Total	2023	2024	2025	2026	2027	2028	2019-2028 Total
	Branch-wide												
1	Facilities & Infrastructure Planning & Design	13	28	330	-	371	-	-	-	-	-	-	371
2	Facilities & Infrastructure Project Delivery	2,673	5,990	4,596	**3,020**	16,279	12,163	7,483	8,568	7,000	7,000	7,102	65,595
3	Waste Services Infrastructure Planning and Design (IIS)	1,931	205	961	**787**	3,884	950	500	500	500	500	500	7,334
4	Waste Services Project Delivery (IIS)	73	3,893	8,161	**5,132**	17,259	13,286	13,500	12,500	4,800	-	-	61,345
5		**4,690**	**10,116**	**14,048**	**8,939**	**37,793**	**26,399**	**21,483**	**21,568**	**12,300**	**7,500**	**7,602**	**134,645**
	Collection Services Facilities												
6	Collection Facilities and Infrastructure	2,267	-	-	-	2,267	-	-	-	-	-	-	2,267
7	Mayfield (NW) Eco Station	1	-	-	-	1	-	-	-	777	6,075	6,925	13,778
8		**2,268**	-	-	-	**2,268**	-	-	-	**777**	**6,075**	**6,925**	**16,045**
	Sustainable Waste Processing Facilities												
9	Cure Site Land Use & Development	247	109	-	-	356	-	-	-	-	-	-	356
10	Groundwater Diversion System	2,440	5,298	462	-	8,200	-	-	-	-	-	-	8,200
11	Alberta Clean Energy Technology Accelerator (ACETA)	-	275	1,517	**302**	2,094	-	-	-	-	-	-	2,094
12	Refuse Derived Facility Enhancements	-	1,081	6,145	-	7,226	-	-	-	-	-	-	7,226
13	Materials Recovery Facility (MRF) Renewal	395	1,285	774	**9,075**	11,529	4,606	-	-	-	-	-	16,135
14	High Solids Anaerobic Digestion Facility	-	-	429	**150**	579	-	-	-	-	-	-	579
15	Landfill Gas to Renewable Natural Gas (RNG)	-	-	670	**10,800**	11,470	5,200	-	-	-	-	-	16,670
16		**3,082**	**8,048**	**9,997**	**20,327**	**41,454**	**9,806**	-	-	-	-	-	**51,260**
	Vehicles & Equipment												
17	Waste Containers	1,240	200	299	**1,140**	2,879	1,743	4,385	3,600	3,700	3,778	3,827	23,912
18	WM Services Equipment Acquisition	5,130	9,442	10,172	**10,990**	35,734	13,310	13,342	9,139	7,574	11,518	11,932	102,549
19		**6,370**	**9,642**	**10,471**	**12,130**	**38,613**	**15,053**	**17,727**	**12,739**	**11,274**	**15,296**	**15,759**	**126,461**
	Waste Program Changes												
20	Source Separated Organics Program	12	6,350	33,487	**1,500**	41,349	-	-	-	-	-	-	41,349
21	**Grand Total**	**16,422**	**34,156**	**68,003**	**42,896**	**161,477**	51,258	39,210	34,307	24,351	28,871	30,286	**369,760**

Note 1: At the August 16, 2021 City Council meeting, approval was granted to cancel the Organics Processing Facilities Delivery Project and as a result, the $13.8 million approved budget for project planning and approximately $80 million of unapproved budget for delivery within Waste Services Project Delivery (IIS) profile have been released and removed from Waste Services' capital schedule. This adjustment is proposed in Attachment 3 of CO00823 Waste Services 2022 Rate Filing Council Report.

Lines 1 & 2 - Facilities & Infrastructure Planning and Design and Project Delivery Composites

These composite profiles provide capital funding for planning and design and project delivery, which will be managed internally by Waste Services. The scope of the Facilities and Infrastructure profiles includes the capital maintenance, renewal and upgrade of existing assets due to new or increased waste streams, safety concerns, and design improvements that increase the efficiency of Waste Services' operations. This also includes implementation of an asset management program to deliver and maintain optimal service levels. Projects were prioritized using a branch-wide process that

identifies and ranks projects based on strategic criteria such as environmental impact, health and safety, and alignment to strategy. All projects managed by IIS and some of the larger projects managed by Waste Services will follow the Project Development & Delivery Model (PDDM) process.

Remaining projects anticipated to be undertaken in this budget cycle include, but are not limited to:

- Structural upgrades to facilities at Kennedale Eco Station
- Accessory projects to the Integrated Processing Transfer Facility to enhance process efficiencies and upgrade safety requirements
- Anaerobic Digestion Facility scrubber project to optimize processing conditions
- EWMC building infrastructure renewals such as roofing reconstruction and communication upgrades
- EWMC site fire protection upgrades to address risk identified by a third-party consultant

Lines 3 & 4 - Waste Services Planning and Design and Project Delivery Composite (IIS Managed)

These composite profiles provide capital funding for planning and design and for project delivery for projects managed by Integrated Infrastructure Services (IIS). The profiles provide a budget to support concept level planning for major capital initiatives in accordance with the City's Project Development & Delivery Model (PDDM). Projects have been identified and prioritized based on strategic criteria such as environmental impact, health and safety and alignment with branch and corporate goals.

Remaining projects anticipated to be undertaken in this budget cycle include, but are not limited to, the following:

- Post commissioning upgrades to the Anaerobic Digestion Facility to enhance safety and efficiency, such as processes to further reduce pathogens and screening and mixing.
- EWMC site security and fire protection upgrades to improve safety and security standards based on corporate security audit recommendations.
- Planning and design of a Contaminated Groundwater Discharge Pipeline for collecting groundwater and diverting it around the landfill at the EWMC.

Line 9 - Cure Site Land Use and Development

This profile was carried forward from the 2015-2018 budget cycle and allows for the procurement and development of an external cure site for composting activities. Due to capital planning changes in organics processing, this profile is not anticipated to incur further costs.

Line 11 - Alberta Clean Energy Technology Accelerator (ACETA)

The profile, formerly titled "Advanced Energy Research Facility (AERF) Upgrade**",** has been updated to reflect location changes of the project and a proposed increase in budget to include full provincial grant funding from Alberta Innovates under the Climate Change Innovation and Technology Framework (CCITF). The grant will be used to upgrade the research and development equipment and infrastructure at the EWMC. This work has been established and approved under a separate stand alone profile to facilitate cost and grant tracking. Please refer to Appendix B for original and revised capital profiles.

Line 12 - Refuse Derived Facility Enhancements

This profile was approved in May 2020 with the goal of building an alternative load-out system and structure to enhance the reliability of the RDF facility, and provide alternative opportunities and further improve waste diversion.

Line 13 - Materials Recovery Facility (MRF) Renewal

This stand alone profile was approved by Council in October 2020 and supports the replacement of various process equipment and building components that will extend the life, improve efficiencies, and increase the capacity of the MRF.

Line 15 - Landfill Gas to Renewable Natural Gas (RNG)

This stand alone profile was approved by Council in February 2021 and includes the capital required to collect, process and convert landfill gas into renewable natural gas (RNG) to manage environmental liabilities associated with the Clover Bar Landfill. Grant funding from Emissions Reduction Alberta and partnership funding from Capital Power will finance the majority of this initiative.

Lines 17 and 18 - Waste Containers and Waste Services Equipment Acquisition

These composite profiles provide capital funding for Waste Containers and Mobile Equipment. The objective of these profiles is to replace existing assets at the end of their useful lives and

provide funding for growth assets to support the current market conditions and the changing needs of Waste Services customers. This entails the purchase of steel bins and litter baskets as well as carts required to support the initial rollout of the residential Source Separated Organics (SSO) Program in 2021. The equipment acquisition profile supports the purchase and capital refurbishment of Collections and Sustainable Waste Processing equipment such as waste collection vehicles, highway tractors and trailers, and compost turners. Resulting from detailed reviews of equipment replacement needs and delivery lead times, reductions to the capital profiles have been reflected in the current budget cycle.

Line 20 - Source Separated Organics Program

This profile was approved by Council in September 2019 and supports major changes to the current waste collection program and the way single unit residents set out their waste for collection. The capital procurement includes household carts and associated accessories, automated collection and crew maintenance vehicles and processing equipment for the citywide program rollout. Due to COVID-19, the implementation of this program was delayed until 2021. Reductions to the capital profile have been reflected to remove budget for costs considered to be operating and for anticipated savings related to cart and facility requirements.

12.1 CAPITAL PROJECT FINANCING SUMMARY

(in thousands of dollars)

Line #	Source of Financing	4 Year Capital Budget					Forecast						
		2019	2020	2021	2022 Proposed	2019 - 2022 Total	2023	2024	2025	2026	2027	2028	2019 - 2028 Total
1	Self Liquidating Debentures	$9,335	$13,761	$34,089	**$16,866**	$74,051	$25,880	$22,197	$18,501	$12,208	$12,640	$13,391	$178,868
2	Pay As You Go Requirement	7,087	9,990	13,034	**15,728**	45,839	21,378	13,842	9,639	8,074	12,018	12,432	123,222
3	Existing Cash	-	10,130	19,363	**-**	29,493	-	3,171	6,167	4,069	4,213	4,463	51,576
4	Provincial Grants & Partnership	-	275	1,517	**10,302**	12,094	4,000	-	-	-	-	-	16,094
	Total Capital Project Financing	**$16,422**	**$34,156**	**$68,003**	**$42,896**	**$161,477**	**$51,258**	**$39,210**	**$34,307**	**$24,351**	**$28,871**	**$30,286**	**$369,760**

Line 1 - Self Liquidating Debentures

Self Liquidating Debentures are coordinated through the City of Edmonton and drawn from the Government of Alberta (formerly the Alberta Capital Financing Authority) in accordance with the City of Edmonton's Debt Management Fiscal Policy C203C. The cost of debt varies according to economic conditions and length of term (see Section 3.0). Details on debt servicing costs are provided in Schedule 10.0.

Line 2 - Pay As You Go Requirement

With the approval of Waste Services Utility Fiscal Policy C558B on December 9, 2020, Pay As You Go (PAYG) requirements continue to be incorporated into the Financial Indicators calculation for Positive Cash Position as illustrated in Section 7.0 Financial Indicators. This term is used to identify the portion of a given capital project which is funded by cash (equity). The Pay As You Go Requirement for the succeeding year is used in calculating a given year's target cash position.

Line 3 - Existing Cash

Existing cash balances are used to fund capital expenditures when feasible after taking into account target cash position requirements and cash requirements to meet post-closure liability requirements. Utilizing existing cash helps the Utility to reduce PAYG and debt requirements, thereby allowing the Utility to maintain stable, consistent rate increases while managing the Utility's Debt Service Coverage Ratio.

Line 4 - Provincial Grants & Partnership

Provincial grant funding for equipment and infrastructure upgrades for the Alberta Clean Energy Technology Accelerator (ACETA) is provided by Alberta Innovates in the amount of approximately $2.1 million. A significant portion of the landfill gas to renewable natural gas project is funded by a $10 million grant from Emissions Reduction Alberta and $4 million of partnership funding from Capital Power.

13. SEGMENTED REPORTING - PROGRAM REVENUES & EXPENSES

(in thousands of dollars)

WASTE COLLECTION SERVICES

Line #		2020 Actual	2021 Budget	2021 Forecast	2022 Proposed	YoY $ Variance	YoY % Variance	2023 Forecast
1	Personnel	$ 26,970	$ 26,415	$ 25,811	**$ 27,237**	$ 1,426	5.5%	$ 27,508
2	Materials, Goods & Supplies	959	695	1,212	**1,191**	(21)	(1.7%)	1,212
3	External Services	27,764	30,484	30,039	**33,131**	3,092	10.3%	33,812
4	Fleet Services	8,006	7,491	6,849	**7,322**	473	6.9%	7,454
5	Shared Services	-	-	-	**-**	-	-	-
6	Intra-municipal Services	1,685	1,938	1,938	**1,957**	19	1.0%	1,956
7	Utilities	579	858	522	**863**	341	65.3%	879
8	Other Expenses	1,649	1,386	988	**1,392**	404	40.9%	1,416
	SUBTOTAL	67,612	69,267	67,359	**73,093**	5,734	8.5%	74,237
9	Intra-municipal Recoveries	(1,034)	(767)	(204)	**(2,206)**	(2,002)	981.4%	(2,220)
	TOTAL O&M EXPENSES	66,578	68,500	67,155	**70,887**	3,732	5.6%	72,017
10	Amortization of Non-Contributed Assets	5,781	9,046	7,413	**8,862**	1,449	19.5%	9,704
11	Debt Interest	937	1,441	1,476	**1,923**	447	30.3%	1,860
	EXPENSES BEFORE ONE-TIME	73,296	78,987	76,044	**81,672**	5,628	7.4%	83,581
12	Grant Payment	-	-	-	**-**	-	-	-
13	Grant Revenue	-	-	(7,612)	**-**	7,612	(100.0%)	-
14	Program Revenues	(7,518)	(4,430)	(4,572)	**(4,143)**	429	(9.4%)	(4,216)
15	Rate Revenues	(65,778)	(74,557)	(63,860)	**(77,529)**	(13,669)	21.4%	(79,365)
	NET INCOME/(NET LOSS)	-	-	-	**-**	-	-	-

SUSTAINABLE WASTE PROCESSING

Line #		2020 Actual	2021 Budget	2021 Forecast	2022 Proposed	YoY $ Variance	YoY % Variance	2023 Forecast
1	Personnel	$21,172	$24,814	$21,621	**$23,823**	$2,202	10.2%	$24,602
2	Materials, Goods & Supplies	2,123	2,291	2,023	**2,602**	579	28.6%	2,010
3	External Services	58,924	51,098	47,494	**48,009**	515	1.1%	54,167
4	Fleet Services	7,874	8,612	7,046	**8,405**	1,359	19.3%	8,648
5	Shared Services	9,773	10,024	10,024	**10,083**	59	0.6%	10,264
6	Intra-municipal Services	3,799	3,413	3,513	**3,785**	272	7.7%	3,973
7	Utilities	3,410	4,286	3,386	**4,313**	927	27.4%	4,615
8	Other Expenses	431	477	6,733	**2,237**	(4,496)	(66.8%)	2,246
	SUBTOTAL	107,506	105,015	101,840	**103,257**	1,417	1.4%	110,525
9	Intra-municipal Recoveries	(3,633)	(3,111)	(2,868)	**(4,784)**	(1,916)	66.8%	(4,770)
	TOTAL O&M EXPENSES	103,873	101,904	98,972	**98,473**	(499)	(0.5%)	105,755
10	Amortization of Non-Contributed Assets	15,492	17,330	15,918	**15,815**	(103)	(0.6%)	16,307
11	Amortization of Regulatory Asset	3,249	3,906	3,906	**3,906**	-	-	3,906
12	Debt Interest	7,719	7,632	6,757	**6,311**	(446)	(6.6%)	6,205
	EXPENSES BEFORE ONE-TIME	130,333	130,772	125,553	**124,505**	(1,048)	(0.8%)	132,173
13	Grant Payment	1,000	-	-	**-**	-	-	-
14	Grant Revenue	(1,441)	-	-	**-**	-	-	-
15	Program Revenues	(10,041)	(10,799)	(8,567)	**(8,874)**	(307)	3.6%	(9,965)
16	Rate Revenues	(128,922)	(125,253)	(135,196)	**(128,420)**	6,776	(5.0%)	(133,399)
	NET INCOME/(NET LOSS)	$ 9,071	$ 5,280	$ 18,210	**$ 12,789**	$ (5,421)	(29.8%)	$ 11,191

Note: Program and Rate Revenues sufficient to achieve a net income of zero are transferred from Collection Services to Sustainable Waste Processing. The net income for Waste Services is therefore wholly contained within Sustainable Waste Processing.

13.1 REVENUES & EXPENSES BY REGULATED AND NON-REGULATED PROGRAM

(in thousands of dollars)

REGULATED PROGRAMS

Line #		2020 Actual	2021 Budget	2021 Forecast	2022 Proposed	YoY $ Variance	YoY % Variance	2023 Forecast
1	Personnel	$ 43,698	$ 49,156	$ 45,550	**$ 48,922**	$3,372	7.4%	$ 49,952
2	Materials, Goods & Supplies	2,613	2,633	2,453	**2,324**	(129)	(5.3%)	2,371
3	External Services	83,223	78,705	73,384	**77,059**	3,675	5.0%	83,813
4	Fleet Services	13,748	14,810	12,661	**14,437**	1,776	14.0%	14,764
5	Shared Services	9,773	10,024	10,024	**10,083**	59	0.6%	10,264
6	Intra-municipal Services	5,424	5,170	5,267	**5,522**	255	4.8%	5,608
7	Utilities & Others	5,589	6,867	11,317	**8,587**	(2,730)	(24.1%)	8,930
	SUBTOTAL	164,068	167,365	160,656	**166,934**	6,278	3.9%	175,702
8	Intra-municipal Recoveries	(916)	(298)	(148)	**(997)**	(849)	573.6%	(1,188)
	O & M EXPENSES	163,152	167,067	160,508	**165,937**	5,429	3.4%	174,514
9	Amortization of Non-Contributed Assets	20,107	25,671	22,451	**23,860**	1,409	6.3%	25,284
10	Amortization of Regulatory Asset	3,249	3,906	3,906	**3,906**	-	-	3,906
11	Debt Interest	8,298	8,846	8,021	**8,035**	14	0.2%	7,879
	EXPENSES BEFORE ONE-TIME	194,806	205,490	194,886	**201,738**	6,852	3.5%	211,583
12	Grant Payment	(891)	-	-	**-**	-	-	-
13	Grant Revenue	1,332	-	-	**-**	-	-	-
14	Program Revenues	7,765	10,707	8,824	**8,538**	(286)	(3.2%)	9,655
15	Rate Revenues	194,700	199,804	199,056	**205,949**	6,893	3.5%	212,764
	NET INCOME/(LOSS)	$ 8,100	$ 5,021	$ 12,994	**$ 12,749**	$ (245)	(1.9%)	$ 10,836

NON-REGULATED PROGRAMS

Line #		2020 Actual	2021 Budget	2021 Forecast	2022 Proposed	YoY $ Variance	YoY % Variance	2023 Forecast
1	Personnel	$ 4,444	$ 2,072	$ 1,882	**$ 2,138**	$256	13.6%	$ 2,158
2	Materials, Goods & Supplies	470	853	782	**1,469**	687	87.9%	851
3	External Services	3,465	3,876	4,149	**4,081**	(68)	(1.6%)	4,166
4	Fleet Services	2,132	1,294	1,234	**1,290**	56	4.5%	1,338
5	Shared Services	-	-	-	**-**	-	-	-
5	Intra-municipal Services	60	181	184	**220**	36	19.6%	321
6	Utilities	481	138	312	**218**	(94)	(30.1%)	226
	SUBTOTAL	11,052	8,414	8,543	**9,416**	873	10.2%	9,060
7	Intra-municipal Recoveries	(3,752)	(3,579)	(2,924)	**(5,993)**	(3,069)	105.0%	(5,802)
	TOTAL O&M EXPENSES	7,300	4,835	5,619	**3,423**	(2,196)	(39.1%)	3,258
8	Amortization of Non-Contributed Assets	1,166	705	880	**817**	(63)	(7.2%)	727
10	ECF Deferred Cost	-	-	-	**-**	-	-	-
9	Debt Interest	356	228	212	**199**	(13)	(6.1%)	186
	EXPENSES BEFORE ONE-TIME	8,822	5,768	6,711	**4,439**	(2,272)	(33.9%)	4,171
10	Grant Payment	(109)	-	-	**-**	-	-	-
11	Grant Revenue	109	-	7,612	**-**	(7,612)	(100.0%)	-
12	Program Revenues	9,793	6,027	4,315	**4,479**	164	3.8%	4,526
14	Rate Revenues	-	-	-	**-**	-	-	-
	NET INCOME/(NET LOSS)	$ 971	$ 259	$ 5,216	**$ 40**	$ (5,176)	(99.2%)	$ 355

To address non-regulated program losses and achieve target cash balances, the Waste Services Utility was given authorization to draw on a notional short-term loan from the City of Edmonton from 2015 to 2019. This ensured that non-regulated program losses were covered by the loan as opposed to regulated revenues and assisted in reducing non-regulated rate increases. On July 5, 2021, City Council approved the full notional loan forgiveness for the non-regulated loan repayment, as outlined in the City Operations report CO00582. 2021 Grant revenue reflects the transfer of appropriated funds from the tax supported Financial Stabilization Reserve to the Utility in order to fully write off the notional non-regulated loan.

13.2 REGULATED ACTIVITIES EXPENSE CHANGES

(in thousands of dollars)

	Regulated Activities	2021 Forecast	Customer Growth	Consumption	Inflation	New Activities (Note 1)	Activities No Longer Required (Note 2)	2022 Proposed
1	Personnel	$ 45,551	-	2,515	856	$ -	-	**$ 48,922**
2	Materials, Goods & Supplies	$ 2,454	15	(197)	52	-	-	**2,324**
3	External Services	$ 73,384	1,407	727	1,541	-	-	**77,059**
4	Fleet Services	$ 12,660	-	1,777	-	-	-	**14,437**
5	Shared Services	$ 10,024	-	59	-	-	-	**10,083**
6	Intra-municipal Services	$ 5,267	-	255	-	-	-	**5,522**
7	Utilities & Other Expenses	$ 11,316	-	1,322	238	487	(4,776)	**8,587**
	SUBTOTAL	160,656	1,422	6,458	2,687	487	(4,776)	**166,934**
8	Intra-municipal Recoveries	$ (148)	-	(849)	-	-	-	**(997)**
	O & M EXPENSES	$ 160,508	$ 1,422	$ 5,609	$ 2,687	$ 487	$ (4,776)	**$ 165,937**

Line 1 - Personnel

Inflation reflects the merit and benefit increases for current positions and consumption reflects the expected return of seasonal and permanent positions to pre-Covid levels to support the implementation of the diversion targets and due to the additional requirements for seasonal yard waste collection.

Line 2 - Materials Goods & Supplies

Decrease reflects the reduction in material requirements for cart maintenance costs related to the Source Separated Organics Program.

Line 3 - External Services

Increase in the number of customers represents the additional costs to provide service to a larger customer base. Consumption is related to higher volume of feedstock requested from the Refuse Derived Fuel facility, increase in hauling requirements to process organics using regional partners and increased volumes at the Eco Stations. Other contract costs include customer billing, Community Relations and Program Management, Administrative Services, and other facilities such as Eco Stations, Edmonton Waste Services Centre Operations, Advanced Energy Research Facility, Research & Development and Environmental.

Line 4 - Fleet Services

Consumption costs reflect an increase in fuel requirements to support the increased volume of seasonal yard waste pickup in 2022. This was lower in 2021 due to the higher summer temperature and reduced rainfall. Also, there will be a higher number of inspection requirements for maintenance of the arms on the automated collection vehicles related to the Edmonton Cart Rollout.

Line 5 - Shared Services

Consumption represents increased lease costs for the Coronation Eco Station.

Line 6 - Intra-municipal Services

Consumption represents additional legal requirements required in 2022.

Line 7 - Utilities & Other Expenses

Consumption represents the increases to power primarily associated with the EWMC facilities such as the Integrated Process Transfer Facility, EWMC Site Operations and the Anaerobic Digestion Facility.

New activities and activities no longer required are identified in note 1 & 2 below.

Line 8 - Intra-municipal Recoveries

Consumption costs reflect an increase in capital recoveries in 2022.

Note 1: New activities represent the increase in landfill liability provision included in 2022 to fully fund the liability over the post-closure period. Collecting the required sum over the full term of the post-closure period will minimize the impact to ratepayers and allow the Utility to maintain stable, consistent rate increases.

Note 2: Activities no longer required represent a one-time non-cash adjustment in 2021 to write-off incurred project costs related to the cancellation of the Organics Processing Facilities (OPF) capital project.

14. HISTORICAL TRENDS

(in thousands of dollars)

Line #		Reference	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Actual	2019 Actual	2020 Actual	2021 Forecast	2022 Proposed
1	Operations and Maintenance	Schedule 9.0	$ 131,901	$ 141,496	$ 155,604	$ 164,316	$ 177,146	$ 170,901	$ 199,364	$ 175,120	$ 169,199	**$ 176,350**
2	Amortization of Non-Contributed Assets	Schedule 10.0	17,074	17,466	19,227	20,310	20,779	22,308	21,023	21,273	23,331	**24,677**
4	Debt Interest	Schedule 10.0	10,104	9,852	9,750	9,588	9,369	9,274	8,978	8,655	8,233	**8,234**
5	Intra-municipal Recoveries	Schedule 9.8	(11,649)	(11,501)	(13,680)	(14,932)	(10,972)	(4,437)	(3,564)	(4,668)	(3,072)	**(6,990)**
6	Grants	Schedule 9.0	3,700	4,000	2,005	2,000	-	1,500	3,600	1,000	-	**-**
7	Amortization of Regulatory Asset	Schedule 9.0	-	-	-	-	-	-	1,309	3,249	3,906	**3,906**
	TOTAL EXPENSES		151,130	161,313	172,906	181,282	196,322	199,546	230,710	204,629	201,597	**206,177**
8	Non-Rate Revenue	Schedule 11.1	26,538	28,379	27,037	28,772	35,880	39,302	30,842	18,999	20,751	**13,017**
9	Rate Revenue	Schedule 11.0	122,403	133,177	148,611	163,010	171,217	178,378	185,861	194,701	199,056	**205,949**
	TOTAL REVENUES		148,941	161,556	175,648	191,782	207,097	217,680	216,703	213,700	219,807	**218,966**
	NET INCOME/(LOSS)	Schedule 13.0	$ (2,189)	$ 243	$ 2,742	$ 10,500	$ 10,775	$ 18,134	$ (14,007)	$ 9,071	$ 18,210	**$ 12,789**

Waste Services Utility Customer Counts

	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Actual	2019 Actual	2020 Actual	2021 Forecast	2022 Proposed	2023 Forecast
Single Unit	195,525	200,475	206,576	211,145	214,900	219,973	224,129	236,120	252,498	**255,493**	258,550
Multi Unit	154,850	158,821	163,636	169,386	174,196	175,519	178,751	171,715	159,143	**164,038**	168,980
Total	350,375	359,296	370,212	380,531	389,096	395,492	402,880	407,835	411,641	**419,531**	427,530

Includes the reclassification of 7,233 customers from Multi-unit to Single Unit in 2020 and 12,572 in 2021. Refer to Sec 3.0 for additional information.

All Customer Counts shown represent December 31 balances. For budget and forecast purposes the utility rates are calculated using a phased-in increase to Customer Counts over a given year to ensure representation of consistent growth. As a result, mid-year customer counts are used in these calculations.

APPENDIX A: OPERATING BUSINESS CASES

There are no Waste Services Operating Business Cases for the 2022 Rate Filing.

APPENDIX B: SUPPLEMENTAL CAPITAL BUDGET ADJUSTMENTS & CAPITAL PROFILES

The following capital profile provides additional information for budget adjustments related to the initiative noted under Schedule 12.0 Capital Budget and Forecast Plan:

- Alberta Clean Energy Technology Accelerator (ACETA)
  This is a previously approved profile, however it is pending a budget adjustment for additional grant funding along with title and profile wording changes as requested in Council Report CO00823 Attachment 3. The original profile titled “Advanced Energy Research Facility (AERF) Upgrade” is also attached for comparison (page 69).

CAPITAL PROFILE REPORT

PROFILE NAME: **ALBERTA CLEAN ENERGY TECHNOLOGY ACCELERATOR (ACETA)** **RECOMMEND FUNDED**

PROFILE NUMBER:	19-81-2050	PROFILE STAGE:	Approved
DEPARTMENT:	Utilities	PROFILE TYPE:	Standalone
LEAD BRANCH:	Waste Services	LEAD MANAGER:	Michael Labrecque
PROGRAM NAME:		PARTNER MANAGER:	
PARTNER:		ESTIMATED START:	March, 2019
BUDGET CYCLE:	2019-2022	ESTIMATED COMPLETION:	February, 2022

Service Category: Utilities **Major Initiative:**

GROWTH	RENEWAL
50	50

PREVIOUSLY APPROVED:	1,260
BUDGET REQUEST:	834
TOTAL PROFILE BUDGET:	2,094

PROFILE DESCRIPTION

The Alberta Clean Energy Technology Accelerator (ACETA) program is part of the continuum of programs that support the Climate Change Innovation and Technology Framework (CCITF) with the goal of enhancing Alberta's ability to reduce GHG emission, provide economic diversification and transition to a lower carbon system. As part of this initiative, Alberta Innovates, through the CCITF program, has provided a $2.094 million grant to the City of Edmonton Waste Managment Centre.

This is a three year initiative which starts in 2019 and will be completed in the first quarter of 2022. Although work commenced in March under the Waste Services Infrastructure & Facilities composite profile utilitizing grant funding, a separate standalone profile for this project is required to be established to facilitate and segregate project cost reporting and grant tracking as required by the grantor. The construction works are to be completed by the end of 2021.

PROJECT LIST

This profile covers the addition of space for technology piloting at the EWMC (Site 440), which is the largest project under the ACETA program. This repurposed classified research space can be rented by third parties to conduct technology research and development.

15% contingency is considered in addition to the project costs.

PROFILE BACKGROUND

ACETA is a cross-institutional hub that is being developed by the City of Edmonton, InnoTech Alberta-Vegreville, the University of Alberta's Future Energy Systems and CanmetEnergy-Devon. The purpose is to create a world-leading clean energy technology accelerator, for piloting and scaling-up of innovations in biomass, municipal solid waste, renewable gas utilisation as well as hydrocarbon processing and upgrading technologies.

The projects lead by the City of Edmonton Waste Management Centre are being undertaken as part of the ACETA initiative. These projects will enhance and reinforce the capability and sustainability of the circular economy hub which has been developing at the EWMC to continue the development and deployment of new technologies in Alberta.

PROFILE JUSTIFICATION

The projects will enhance and reinforce the capability and sustainability of the circular economy hub which has been developing at the Edmonton Waste Management Centre (EWMC) to continue the development and deployment of new technologies in Alberta.
The R&D Lab Upgrade and the Technology Piloting space will allow the EWMC's research and development programs to attract more tenants and increase revenue generation streams.

STRATEGIC ALIGNMENT

Alberta Clean Energy Technology Accelerator (ACETA) is a cross-institutional hub that is developed by the City, InnoTech Alberta-Vegreville, U of A's Future Energy Systems & Canmet Energy-Devon to become a world-leading clean energy tech. accelerator, piloting & scaling-up of innovations in biomass, municipal solid waste, renewable gas utilisation, hydrocarbon processing & upgrading technologies.

The initiative aligns with the City & Waste Services vision to become a leader in climate change & clean energy technology, while improving financial sustainability of the R&D program.

ALTERNATIVES CONSIDERED

The only alternatives would be:
1) For the City to fund 100% of the required upgrades to the facility which may not be financially feasible.
2) Leave the facilities as is without upgrades, which would lead to outdated facilities and technology gaps, resulting in lower tenancy and financial sustainability.

COST BENEFITS

The EWMC (specific to research and development) had been seeking this type of funding in order to attract more tenants/partners & become financially sustainable. Securing a grant to assist on what otherwise will be funded completely by the Utility is an excellent benefit. In addition, the consortium is unique and has the potential to become a world-leading body, addressing major technological gaps on technologies which would serve the City well.

CAPITAL PROFILE REPORT

KEY RISKS & MITIGATING STRATEGY

A major risk is not being able to deliver on time and on budget. This is mitigated through budget control and strong project management.

RESOURCES

Waste Services has the technical resources to carry out the projects and no additional or external resources are required. Detailed engineering work will be contracted out following the City's procurement guidelines and protocols.

CONCLUSIONS AND RECOMMENDATIONS

The ACETA initiative aligns with the City & Waste Services vision to become a leader in climate change & clean energy technology, while improving financial sustainability of the EWMC research and development program. The EWMC lead projects support technical capacity gaps in Alberta's research and innovation system in the CCITF priority sectors for GHG emission reduction, economic growth and diversification.

CAPITAL PROFILE REPORT

PROFILE NAME: **Alberta Clean Energy Technology Accelerator (ACETA)** **RECOMMEND FUNDED**

PROFILE NUMBER: **19-81-2050** PROFILE TYPE: **Standalone**

BRANCH: **Waste Services**

CAPITAL BUDGET AND FUNDING SOURCES (000's)

		Prior Years	2021	2022	2023	2024	2025	2026	2027	2028	2029	Beyond 2029	Total
APPROVED BUDGET	Approved Budget												
	Original Budget Approved	-	-	-	-	-	-	-	-	-	-	-	-
	2019 Cap Council	600	550	-	-	-	-	-	-	-	-	-	1,150
	2019 Cap Carry Forward	-	-	-	-	-	-	-	-	-	-	-	-
	2020 Cap Council	-	-	110	-	-	-	-	-	-	-	-	110
	2020 Cap Carry Forward	-325	325	-	-	-	-	-	-	-	-	-	-
	Current Approved Budget	275	875	110	-	-	-	-	-	-	-	-	1,260
	Approved Funding Sources												
	Other Grants - Provincial	275	875	110	-	-	-	-	-	-	-	-	1,260
	Current Approved Funding Sources	275	875	110	-	-	-	-	-	-	-	-	1,260
BUDGET REQUEST	Budget Request	-	-	834	-	-	-	-	-	-	-	-	834
	Revised Funding Sources (if approved)												
	Other Grants - Provincial	-	-	834	-	-	-	-	-	-	-	-	834
	Requested Funding Source	-	-	834	-	-	-	-	-	-	-	-	834
REVISED BUDGET (IF APPROVED)	Revised Budget (if Approved)	275	875	944	-	-	-	-	-	-	-	-	2,094
	Requested Funding Source												
	Other Grants - Provincial	275	875	944	-	-	-	-	-	-	-	-	2,094
	Requested Funding Source	275	875	944	-	-	-	-	-	-	-	-	2,094

CAPITAL BUDGET BY ACTIVITY TYPE (000's)

REVISED BUDGET (IF APPROVED)	Activity Type	Prior Years	2021	2022	2023	2024	2025	2026	2027	2028	2029	Beyond 2029	Total
	Other Costs	275	875	944	-	-	-	-	-	-	-	-	2,094
	Total	275	875	944	-	-	-	-	-	-	-	-	2,094

OPERATING IMPACT OF CAPITAL

Type of Impact:

Branch:	Rev	Exp	Net	FTE	Rev	Exp	Net	FTE	Rev	Exp	Net	FTE	Rev	Exp	Net	FTE
Total Operating Impact	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

CAPITAL PROFILE REPORT

PROFILE NAME:	**ADVANCE ENERGY RESEARCH FACILITY (AERF) UPGRADE**		**FUNDED**
PROFILE NUMBER:	**19-81-2050**	PROFILE STAGE:	**Approved**
DEPARTMENT:	**Utilities**	PROFILE TYPE:	**Standalone**
LEAD BRANCH:	**Waste Services**	LEAD MANAGER:	**Michael Labrecque**
PROGRAM NAME:		PARTNER MANAGER:	
PARTNER:		ESTIMATED START:	**March, 2019**
BUDGET CYCLE:	**2019-2022**	ESTIMATED COMPLETION:	**February, 2022**

Service Category: Utilities **Major Initiative:**

GROWTH	RENEWAL
50	50

PREVIOUSLY APPROVED:	1,260
BUDGET REQUEST:	-
TOTAL PROFILE BUDGET:	1,260

PROFILE DESCRIPTION

The upgrade of the Advanced Energy Research Facility (AERF) at the Edmonton Waste Management Centre (EWMC) is being undertaken as part of an initiative called Alberta Clean Energy Technology Accelerator (ACETA), which would help to improve the viability and financial sustainability of the AERF. As part of this initiative, Alberta Innovates, through its Climate Change Innovation and Technology Framework (CCITF) program, has provided a $2.09 million grant to the AERF. Of the total funding received by the City ($2.09 million), an estimated amount of $1.15 million will be spent on five capital construction/upgrade projects listed in the "Project List" section below. The remaining funding will be used as operating funds. As a result, no City/Waste Services Utility funding is anticipated to be required for these upgrades.

This is a three year initiative which starts in 2019 and will be completed in the first quarter of 2022. Although work commenced in March under the Waste Services Infrastructure & Facilities composite profile utilitizing grant funding, a separate standalone profile for this project is proposed to be established to facilitate and segregate project cost reporting and grant tracking as required by the grantor.

The design aspects of all five projects are to be completed by the end of 2019, whereas the procurement and construction are to be completed by the end of 2020. The City of Edmonton as lead applicant of the grant, will be managing the funds. A governance structure was developed and subcontract agreements were signed with all ACETA partners.

PROJECT LIST

An estimated amount of $1.15 million will be spent for the following capital construction/upgrade projects:
Project 1: Upgrading the microbiology and waste characterization laboratories. This will include major upgrade of the ventilation system to render the biological lab a certified class II lab.

Project 2: Micro-generation of electrical power for the processes at AERF. This will allow the reduction of power demand changes at AERF, while improving its carbon footprint.

Project 3: Procurement of biogas sampling, transport and storage system.

Project 4: Addition of more incubation space (pods) at the AERF.

Project 5: Upgrading the pilot Refuse Derived Fuel (RDF) processing facility by procuring small size screens and more RDF densification capability.

PROFILE BACKGROUND

ACETA is a cross-institutional hub that is being developed by the City of Edmonton, InnoTech Alberta-Vegreville, the University of Alberta's Future Energy Systems and CanmetEnergy-Devon. The purpose is to create a world-leading clean energy technology accelerator, for piloting and scaling-up of innovations in biomass, municipal solid waste, renewable gas utilisation as well as hydrocarbon processing and upgrading technologies.

The upgrade of the Advanced Energy Research Facility (AERF) is being undertaken as part of an initiative called Alberta Clean Energy Technology Accelerator (ACETA), which would help to improve the viability and financial sustainability of the AERF.

PROFILE JUSTIFICATION

Each of the five initiatives will allow AERF to increase its capabilities and to reduce its operating cost, thereby rendering the AERF more financially sustainable.The power micro-generator will reduce the demand charges which represents more than 50% of the AERF electricity bill of more $100,000 per year. More incubation space will allow the AERF to attract more tenants and increase revenue generation streams.

STRATEGIC ALIGNMENT

Alberta Clean Energy Tech. Accelerator (ACETA) is a cross-institutional hub that is developed by the City, InnoTech Alberta-Vegreville, U of A's Future Energy Systems & CanmetEnergy-Devon to become a world-leading clean energy tech. accelerator, piloting & scaling-up of innovations in biomass, municipal solid waste, renewable gas utilisation, hydrocarbon processing & upgrading technologies.

The initiative aligns with the City & Waste Services vision to become a leader in climate change & clean energy technology, while improving financial sustainability of research and development program.

CAPITAL PROFILE REPORT

ALTERNATIVES CONSIDERED

The only alternatives would be:
1) For the City to fund 100% of the required upgrades to the facility which may not be financially feasible.
2) Leave the facility as is without upgrades, which would lead to an outdated facility and technology gaps, resulting in lower tenancy and financial sustainability.

COST BENEFITS

AERF had been seeking this type of funding initiative to upgrade the facility in order to attract more tenants or partners and become financially sustainable. Securing a grant to assist on what otherwise will be funded completely by the Utility is an excellent benefit. In addition, the consortium is unique and has the potential to become a world-leading body, addressing major technological gaps on technologies which would serve the City well.

KEY RISKS & MITIGATING STRATEGY

A major risk is not being able to deliver on time and on budget. This is mitigated through budget control and strong project management.

RESOURCES

Waste Services has the technical resources to carry out the projects and no additional or external resources are required. Detailed engineering work will be contracted out following the City's procurement guidelines and protocols.

CONCLUSIONS AND RECOMMENDATIONS

The upgrade of the Advanced Energy Research Facility (AERF) is being undertaken as part of an initiative called Alberta Clean Energy Technology Accelerator (ACETA), which would assist in improving the viability and financial sustainability of the AERF. These initiatives will allow AERF to increase its capabilities, reduce its operating cost and increase tenancy, thereby rendering the AERF more financially sustainable.

It is recommended that a stand-alone profile for this project is established to facilitate project cost reporting and grant tracking as required by the grantor.

CAPITAL PROFILE REPORT

PROFILE NAME: **Advance Energy Research Facility (AERF) Upgrade** **FUNDED**

PROFILE NUMBER: **19-81-2050** PROFILE TYPE: **Standalone**

BRANCH: **Waste Services**

CAPITAL BUDGET AND FUNDING SOURCES (000's)

		Prior Years	2021	2022	2023	2024	2025	2026	2027	2028	2029	Beyond 2029	Total
APPROVED BUDGET	Approved Budget												
	Original Budget Approved	-	-	-	-	-	-	-	-	-	-	-	-
	2019 Cap Council	600	550	-	-	-	-	-	-	-	-	-	1,150
	2019 Cap Carry Forward	-	-	-	-	-	-	-	-	-	-	-	-
	2020 Cap Council	-	-	110	-	-	-	-	-	-	-	-	110
	2020 Cap Carry Forward	-325	325	-	-	-	-	-	-	-	-	-	-
	Current Approved Budget	275	875	110	-	-	-	-	-	-	-	-	1,260
	Approved Funding Sources												
	Other Grants - Provincial	275	875	110	-	-	-	-	-	-	-	-	1,260
	Current Approved Funding Sources	275	875	110	-	-	-	-	-	-	-	-	1,260
BUDGET REQUEST	Budget Request	-	-	-	-	-	-	-	-	-	-	-	-
REVISED BUDGET (IF APPROVED)	Revised Budget (if Approved)	275	875	110	-	-	-	-	-	-	-	-	1,260
	Requested Funding Source												
	Other Grants - Provincial	275	875	110	-	-	-	-	-	-	-	-	1,260
	Requested Funding Source	275	875	110	-	-	-	-	-	-	-	-	1,260

CAPITAL BUDGET BY ACTIVITY TYPE (000's)

REVISED BUDGET (IF APPROVED)	Activity Type	Prior Years	2021	2022	2023	2024	2025	2026	2027	2028	2029	Beyond 2029	Total
	Other Costs	275	875	110	-	-	-	-	-	-	-	-	1,260
	Total	275	875	110	-	-	-	-	-	-	-	-	1,260

OPERATING IMPACT OF CAPITAL

Type of Impact:

Branch:	Rev	Exp	Net	FTE	Rev	Exp	Net	FTE	Rev	Exp	Net	FTE	Rev	Exp	Net	FTE
Total Operating Impact	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

APPENDIX C: AFFILIATE TRANSACTIONS BENCHMARKING STUDY

In March 2021, Waste Services engaged MNP to conduct a benchmarking study of municipally-owned utilities that are allocated costs for receiving corporate or centralized services. The scope of this study included a review and comparison of cost allocations, methodologies, policies, and procedures with the intent to evaluate if the Shared Services costs allocated to Waste Services at the City of Edmonton are on par with comparable municipalities.

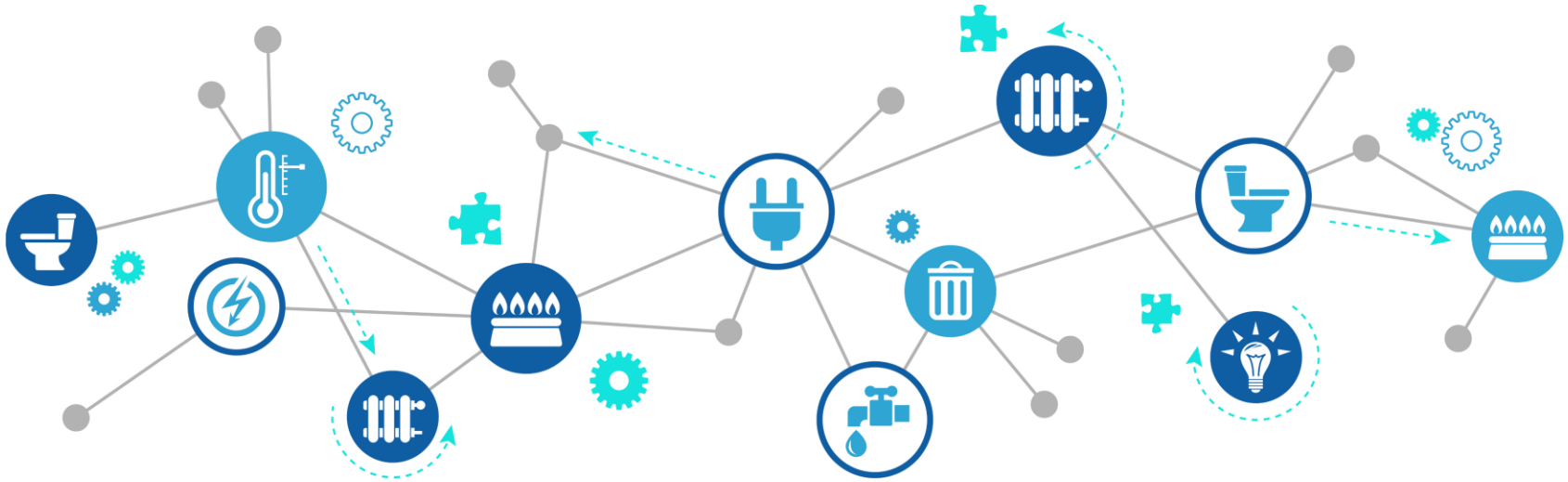
To enable reasonable comparisons between municipalities, the six most common service categories that are provided through central services were selected including: Information Technology, Human Resources, Financial Services, Communications Services, Law (Legal Services), and Procurement. Overall, the study concluded that the shared services costs allocated to the City of Edmonton Waste Services Utility was reasonable and within acceptable range. See detailed report below.

Affiliate Transactions Benchmarking Study

Affiliate Transactions Benchmarking Study

City of Edmonton Waste Services

September 13, 2021



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Executive Summary

Executive Summary

"Utility ratepayers essentially pay all the Shared Services costs allocated to Waste Services."

Why

The City of Edmonton (the "City", "Edmonton", or "CoE") has been operating under a Shared Services model since 1997 to support the operations of City departments. The Waste Services Branch ("Waste Services" or "the Branch") is undergoing a benchmarking study to validate the reasonableness and appropriateness of Shared Services costs allocated to Waste Services.

The Branch recovers 100% of its costs, including Shared and Corporate Service Costs allocated to Waste Services, through Utility rates and fees, which means Utility ratepayers essentially pay all the Shared Services costs allocated to Waste Services. If Shared Services were to ever overcharge (or undercharge) the Branch for services provided, it would be shifting the costs onto Utility ratepayers that all taxpayers should have borne (or vice-versa). Therefore, it is vital to ensure that Shared Services' charges to Waste Services accurately reflect the services provided and benefits received.

Executive Summary

"Are the Shared Services costs allocated to Waste Services at the City of Edmonton on par with its peers?"

What and How

In March 2021, the City engaged MNP to conduct a benchmarking study of municipally-owned Utilities that allocate Shared Services using a financial lens. The scope of this study included cost allocations, methodologies, policies, and procedures with the intent to evaluate if the Shared Services costs allocated to Waste Services at the City are on par with comparable municipalities. To enable reasonable comparisons between municipalities, we selected the six most common service categories that are provided through central services. Those services were: Information Technology, Human Resources, Financial Services, Communications Services, Law (Legal Services), and Procurement.

MNP conducted Primary Benchmarking with six Canadian municipalities to gather Utility-specific financial data and information. This Primary Benchmarking was conducted through a series of interviews and workbook exercises. In addition, MNP conducted Secondary Benchmarking, which included identifying common costing methods using four American municipalities and comparing city-wide Shared Services costs at six Canadian municipalities. With the data collected, MNP assessed the reasonableness of Shared Services cost allocation to Waste Services at CoE against the benchmarking participants in terms of the cost methods and cost as a percentage of Utility's annual expenditure. If Waste Services' cost allocation for a service was less than 20% above the average costs of the benchmarked utilities and cities for that service or lower, it was considered to be reasonable.

It should be noted that most of the quantitative financial information collected for this study is for participant internal use-only. That being the case, names of the primary benchmarking participants will remain anonymous throughout this report.

Executive Summary

"The structures, scopes, and levels of Shared Services often vary greatly among municipalities."

"The Shared Services cost methods and allocations to Waste Services at the City of Edmonton are largely on par with the benchmarking municipalities."

Challenges and Assumptions

This review was conducted under the general assumption that all the Utilities receive similar levels of services unless differences can be identified clearly. Although municipalities provide similar services in general and it is common for municipalities to allocate centralized support services to their internal business functions, the structures, scopes, and levels of these services often vary greatly from city to city. Without thorough operational and service level details, accurately comparing the service costs line-by-line can be challenging. However, our goal here was not to draw absolute conclusions on the precise value for money Waste Services is receiving for specific services. Instead, we focused on evaluating if a cost is "reasonable" and identifying outliers that may merit further review by the City. Specifically, we designed a 3-step Reasonableness Evaluation process (page 16) to evaluate the services' cost allocations and rationales.

Findings

Based on the Reasonableness Evaluation, the Shared Services cost methods and allocations to Waste Services at the City of Edmonton are largely on par with the benchmarking municipalities. Costs allocated to Waste Services for IT, HR, Financial Services, Communications, Law, and Procurement were reasonable for each of the years 2018 through 2020, on both assessment bases.

MNP also notes that cost allocations at Waste Services and the comparator municipalities in this study are impacted by variations in the sub-service categories included within the municipalities' service areas, differences in service levels provided, variances in utility operations, and other differences between comparators.

Definitions

Municipalities have different definitions for Shared Services and Interdepartmental Services. In addition, there are always exceptions under each definition. The definitions used in this study are summarized below to suit the City of Edmonton's context and to simplify the analyses.

Shared Services

Ongoing pooled cost allocation

- The total cost of the centralized service is distributed among departments. Typically the distribution is based off of cost drivers (for example, number of FTE's).

Ongoing direct support

- FTE's are assigned to a specific department. The FTE cost (salary and benefits) is accounted for within their assigned department's budget.

Interdepartmental Services

On-demand direct support

- Ad-hoc services, billed at cost to the department that requests them.

Internal Support

- Services provided directly within department.

Background

Background

In March 2021, the City of Edmonton's Waste Services Branch engaged MNP LLP ("MNP") to conduct a benchmarking study of the Shared Services costs allocated to Waste Services. This report describes MNP's approach and methodology for this study, the study's findings, and a summary of recommendations resulting from the study.

The City of Edmonton employs a Shared Services model whereby ongoing support services (e.g., Information Technology, Human Resources, Communications, Financial Services, etc.) required for the operations of all City businesses are provided through centralized areas of expertise – Financial & Corporate Services. This approach takes advantage of efficiencies gained through economies of scale and opportunities to provide more robust systems and services. The Waste Management Utility Fiscal Policy C558B requires that the Utility operate under a full cost approach thus requiring the Utility to pay for its portion of Shared Services.

As part of the City's 2019-2022 Operating Budget development, Shared Services providers performed a review of their costs and the shared service allocation model, resulting in several changes to the allocation of shared service costs from the service providers to the Utility, including Waste Services Branch. To validate the reasonableness of Shared Services costs allocated to the Utility, Waste Services Branch initiated a benchmarking study among other municipal-owned Utilities in 2019. This initiative was delayed due to the Covid-19 pandemic in 2020. In the spring of 2021, Waste Services kicked off this project and engaged MNP to conduct the benchmarking study.

The focus of this benchmarking study was to compare the City of Edmonton's Shared Services cost allocation and methods against other municipality-owned Utilities to assess the reasonableness of allocation. It should be noted that Waste Services receives certain services on both an on-going and on-demand basis. For on-demand services not incorporated in Shared Services, direct charges for services are billed to Waste Services. This study included Shared Services costs only.

Approach and Methodology

Approach and Methodology Overview

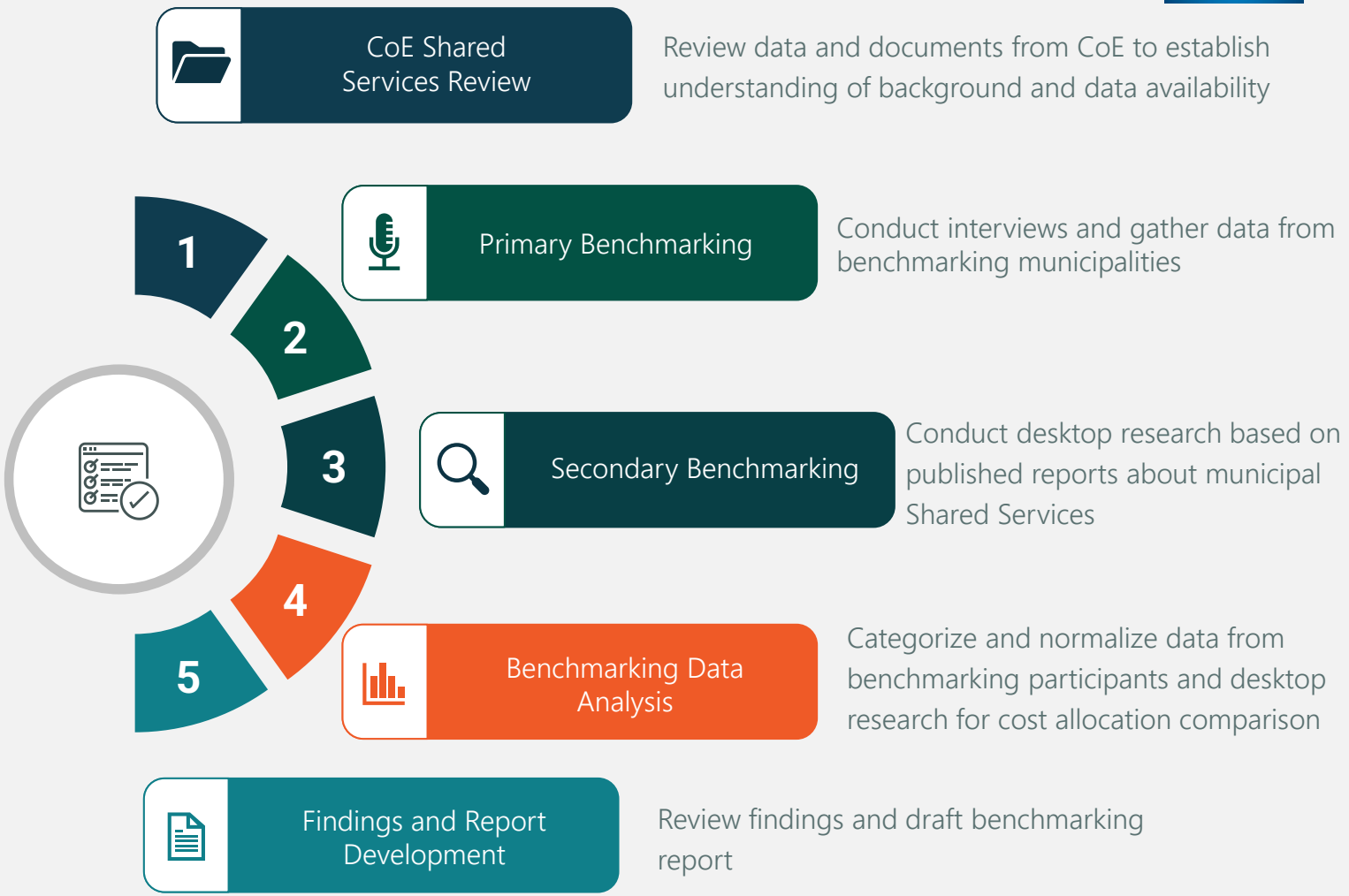
This study was completed in five phases, as depicted in Exhibit 1.

A key component of this study was to gather sufficient cost allocation information from comparable Utilities to enable sound data analysis. After reviewing the City of Edmonton's Shared Services costing methods and allocation, we recognized that this benchmarking would require large amounts of internal data, which may demand extensive research from benchmarking participants. This can be a challenge especially considering the project timeline coincided with the summer when staff often take vacations.

Therefore, to ensure the study had sufficient comparable data, we designed two information streams for the benchmarking process: Primary Benchmarking and Secondary Benchmarking.

Detailed approach descriptions for phases 1 through 4 are available between page 11 and 19. The approach for Phase 5 is not described in detail in this report; however, the resulting findings are captured in this report's Findings Summary section.

Exhibit 1: Shared Services Benchmarking Review Overall Approach



Methodology | CoE Shared Services Review

The City of Edmonton's Shared Services Review phase consisted of a detailed review of relevant background documents that the City provided to MNP, as well as interviews and correspondence with Waste Services and Financial Services personnel identified by the City.

The City adopted its Shared Services model in 1997. In the years since then, many of the corresponding policies and procedures which may have described the City's cost allocation approaches and rationale are no longer available. The information provided comprised mainly financial documents with some quantitative cost drivers. The documents that MNP reviewed and relied upon for this study included:

- Waste Services Rate Filing (2020, 2021)
- Waste Services Utility Statements (2019, 2020)
- Shared Services Costing Summary (2019-2022)
- The City of Edmonton Approved Operating Budget (2019-2022)
- City of Edmonton Waste Services Fiscal Policy Benchmarking Final Report
- IT Device Information

To establish a baseline for service categories, Utility revenue sources, service governance, allocation processes, and costing data profiles, MNP conducted six interviews/meetings and numerous information exchanges with City staff from Finance and Business Strategy, Planning Performance at Waste Services. The baseline was later used to structure the approach and interview protocols to gather comparable information from benchmarking participants.

Methodology | Primary Benchmarking

Most of the quantitative financial information is for participant internal use-only. Therefore, the primary benchmarking participants will remain anonymous in this report.

Exhibit 2: Primary Benchmarking Steps

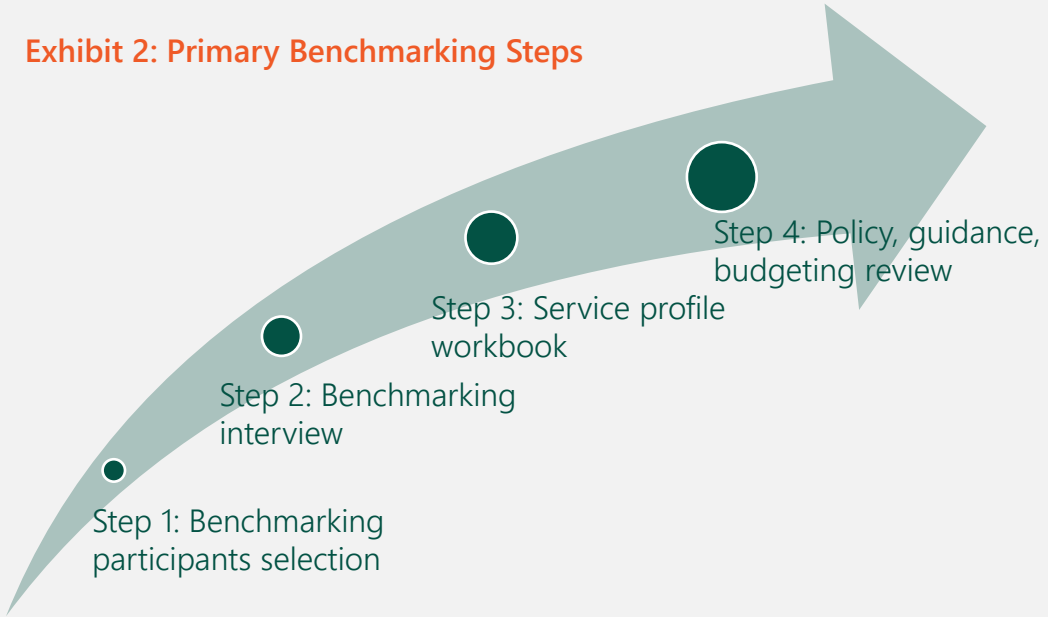


Exhibit 3: Primary Benchmarking Participants

Benchmarking Respondents	Interviewed at high-level	Interviewed	Data Provided
Utility A		✓	✓
Utility B		✓	✓
Utility C		✓	✓
Utility D		✓	

Note: Three of the participants were from Western Canada and one was from Eastern Canada.

As shown in Exhibit 2, we implemented a 4-step method to conduct Primary Benchmarking research.

Step 1: The City identified preferred participants based on the Utility size, geography, cost recovery model, service delivery and operating model. MNP contacted ten municipalities/districts and one utility company, out of which, four municipalities/districts participated in the study and provided information with varied levels of detail.

Step 2: MNP conducted four interviews and numerous information exchanges with four Canadian municipalities/districts inquiring about the cost allocation and costing method for Shared Services to understand the costing methods currently in place at comparator organizations. The Interview Guide is available in Appendix I.

Step 3: Three participants provided Shared Services cost allocation data using a Service Profile Workbook, which is available in Appendix I.

Step 4: Some supplemental data and information was provided by Primary Benchmarking participants through existing documents such as policies, guidelines, financial statements, and budgeting reports, to name a few.

Exhibit 3 summarizes the benchmarking participants and information provided at a high level. Utility D will not be included in the quantitative analyses due to lack of data.

Methodology | Secondary Benchmarking

Qualitative

Desktop research on municipality Shared Services common cost drivers

Local Government Allocating Overhead Costs Audit:

Washington State conducted an audit on Washington's cities and counties in 2011 to evaluate how municipalities allocate central Shared Services costs (i.e., described as "centrally provided services" in the report) to their Utilities and other programs. This audit reviewed the allocation methods and costs of eight cities.

As this study was conducted a decade ago, the cost allocation may not accurately reflect their allocation amounts today. However, the cost drivers and allocation methods usually remain consistent within a municipality and can be used as references.

For this study, we selected four relatively larger cities and looked in their cost drivers for allocating costs of centralized Shared Services, including IT, HR, Finance, Communication, Legal, and Procurement. The common cost drivers from this audit were compiled with cost drivers from the Primary Benchmarking participants and presented in the Benchmarking Results section.

Quantitative

Desktop research on municipal Shared Services cost allocations

Municipal Benchmarking Network (MBN):

Municipal Benchmarking Network Canada is a partnership between Canadian municipalities. The partner municipalities identify and collect consistent and comparable data on their municipal service areas and provide this data to MBN annually. MBN then compiles and analyzes those results and reports their findings publicly. Municipalities use this data to support Council decisions, set policy, inform reviews, evaluate programs, support budget recommendation, identify trends, and develop data dashboards.

For this study, we selected the City of Calgary, City of Hamilton, City of Montreal, and City of Toronto as Secondary Benchmarking municipalities. It should be noted that the data from MBN is city-wide and not department-specific (i.e. it is not specific to a utility). The cost allocations from MBN were compared to the cost allocations to the City of Edmonton Waste Services in the Benchmarking Results section.

The Secondary Benchmarking is from two data sources:

- Local Government Allocating Overhead Costs Audit provided municipality Shared Services common cost drivers
- Municipality Benchmarking Network provided cost allocations for Shared Services

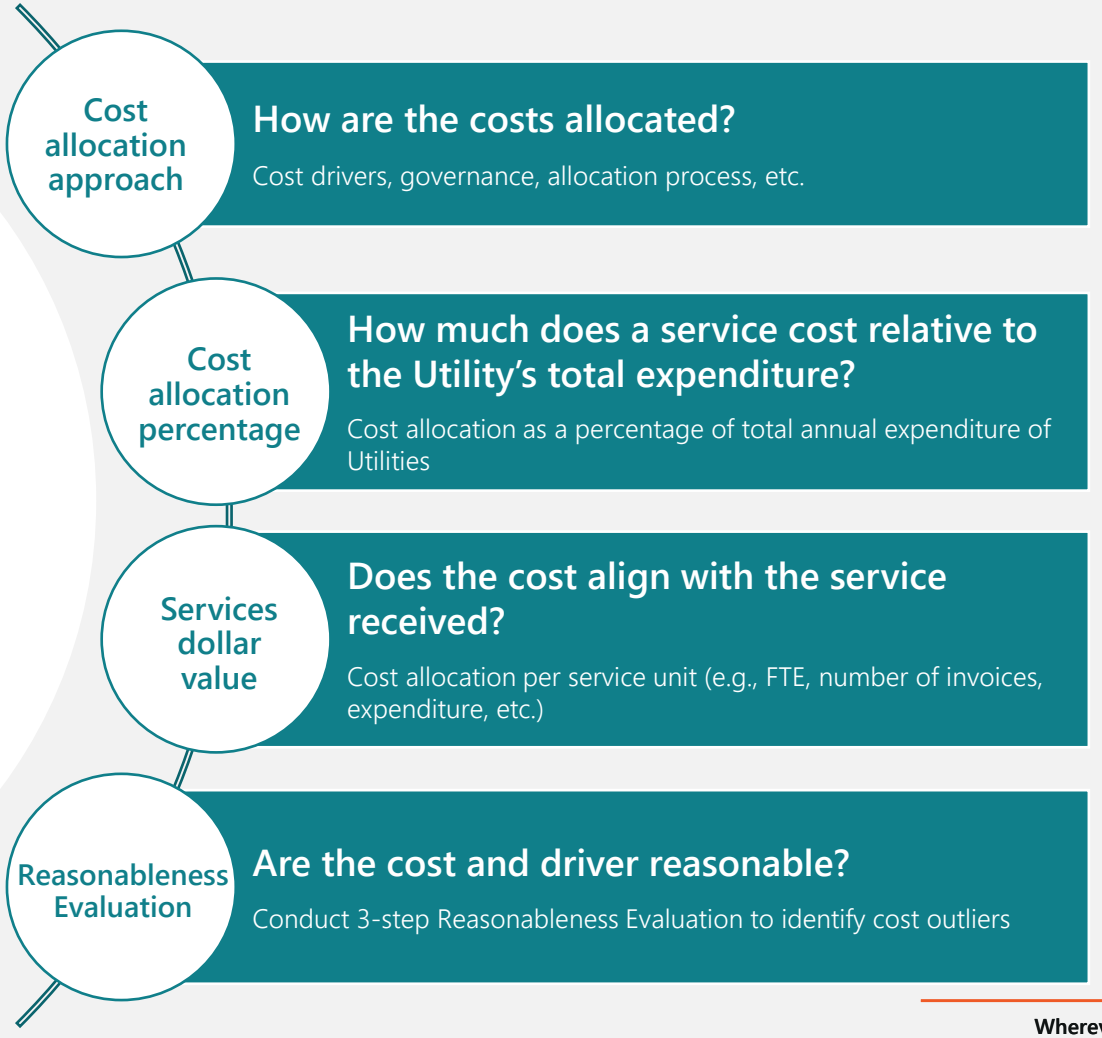
Methodology |Benchmarking Data Analysis

Through the benchmarking study, the City was seeking the answer to this question:

"Are the Shared Services costs allocated to Waste Services reasonable?"

Although there is no absolute definition of reasonableness for service costs, there are some common indicators. To allow the City to have a robust assessment of the reasonableness and appropriateness of Waste Services' Shared Service cost allocations, we analyzed the data from the four perspectives shown in Exhibit 4.

Exhibit 4: Data Analysis Methods



Service Selection

The benchmarking municipalities centralize multiple services to support their internal operations, and the service categories vary from municipality to municipality. To enable reasonable comparison between municipalities, we selected the six most common service categories that are provided through central services. Those services are:

- Information Technology
- Human Resources
- Financial Services
- Communications Services
- Law (Legal Services)
- Procurement

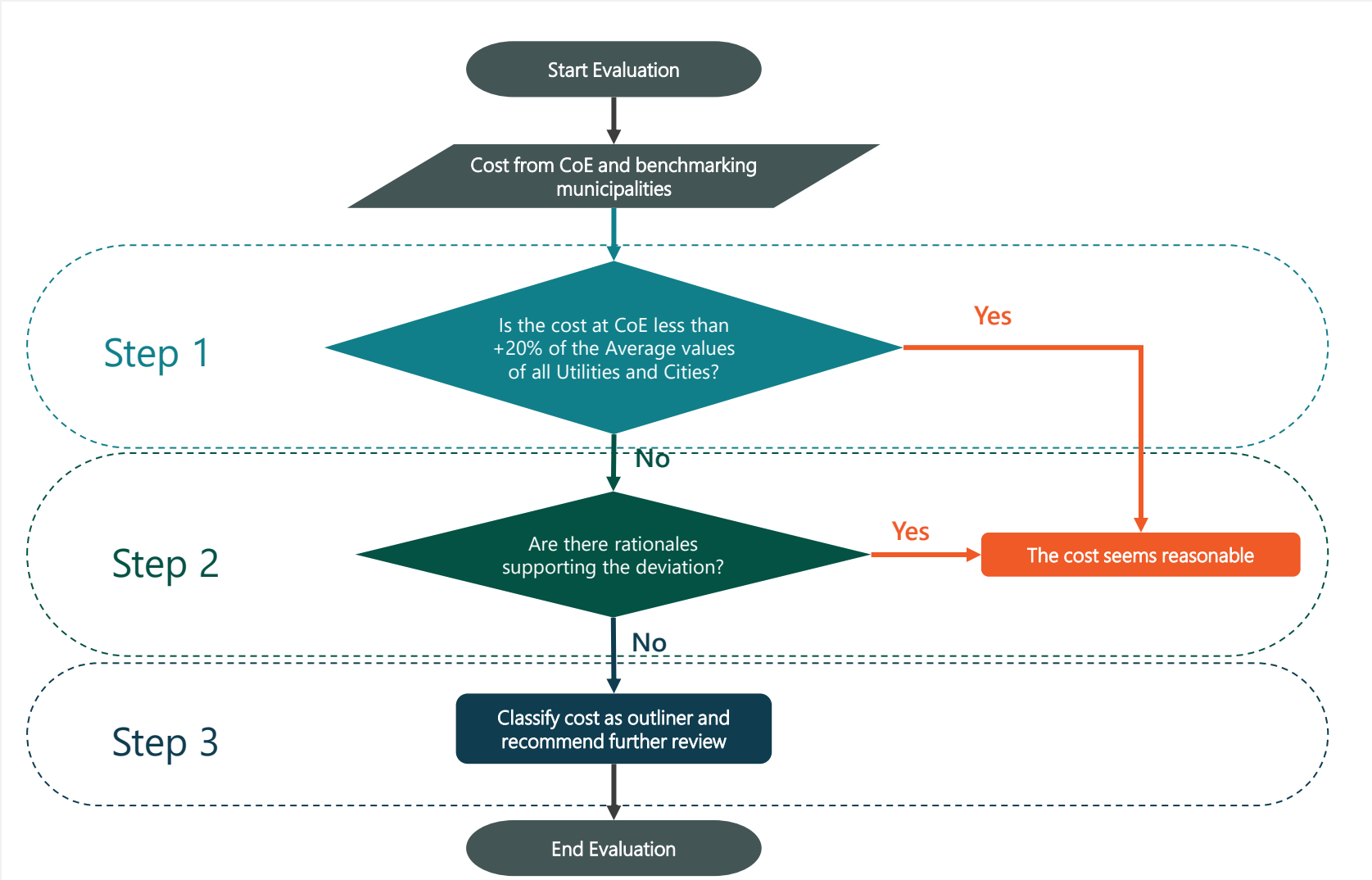
Methodology |Benchmarking Data Analysis

To evaluate if a cost is "reasonable" and identify significant outliers that require further review by the City, MNP designed a 3-step Reasonableness Evaluation process. When evaluating CoE costs against the Average values, the relatively small sample sizes limited the opportunity to conduct rigorous statistical analysis to identify outliers. As such, to test reasonableness for the purposes of this study, MNP defined the following ranges:

- Green: cost below 10% above the Average value calculated using data from all Utilities and Cities.
- Yellow: cost between 10% and 20% above the Average value
- Red: cost more than 20% above the Average value

MNP notes that the City should follow up on the items identified as outliers to understand what the underlying reasons for the differences are in detail.

Exhibit 5: Cost 3-step Reasonableness Evaluation Process



Data Sources Summary

In this study, MNP relied on three main data sources, as summarized on this page.

Data Source 1: MNP Municipal Primary Benchmarking Interviews and Workbook – by MNP

As stated on page 13, MNP interviewed four benchmarking Utilities, of which three provided quantitative data. These data are Utility-specific and compared from-service-to-service in the Benchmarking Results section.

It is important to note that most of the quantitative financial information is for participant internal use-only. Therefore, the primary benchmarking participants will remain anonymous in this report.

Data Source 2: Local Government Allocating Overhead Costs Audit – by Washington State

For each reviewed service, the common cost drivers reported in the Local Government Allocating Overhead Costs Audit together with cost drivers used by the Primary Benchmarking Participants were summarized to provide a qualitative overview of common cost allocation methods.

Data Source 3: Municipal Benchmarking Network (MBN) – by Municipal Benchmarking Network Canada

Municipal Benchmarking Network's results are City-wide and were used to analyze the cost allocation quantitatively when data is available.

Note that the data from the above three sources were gathered individually without coordination. Therefore, the data and their structures are inconsistent between sources. In this study, the approach to choosing data sources was to include as many data points as possible based on data availability, which means that the number of data points may vary between services and between data analysis components.

Exhibit 6 summarizes the data analysis components and their data sources.

Exhibit 6: Data Analysis Components Sources

Data Analysis Component	Data Sources
Common Cost Drivers	1, 2
Cost allocation as a percentage of total annual expenditure of Utilities	1, 3 (Note: Mostly 1, data source 3 includes this percentage for legal services, therefore is used for the analysis)
Services dollar value: Cost allocation for IT per FTE	1, 3

Review Limitations

To support this study, the City of Edmonton and the Primary Benchmarking participants provided invaluable data and information through participating interviews, supplying documents, and conducting internal research. This study, however, is subject to several limitations, which are summarized below.

Exhibit 7: Review Limitation Summary

Limitations	Description	Limitation Mitigation and Assumptions
Varied Shared Services categories among municipalities	• The service categories delivered through Shared Services vary from municipality to municipality.	• Selected six common services for benchmarking
Inconsistent service sub-categories among municipalities	• This study focuses on six common services. Under each service type, multiple services are provided. Usually, these services are described by sub-service categories. However, these sub-service categories are largely inconsistent among municipalities, which makes it difficult to evaluate if the same services are being provided, or if they are being provided at comparable service levels, before comparing the service costs. • There is a rare exception when sub-category differences are obvious and can be easily adjusted for more direct comparison. For example, payroll service is included under Financial Services at Utility B, while under Human Resources at the City of Edmonton. In this case, to make a more consistent and relevant comparison, we calculated the payroll service costs as part of the HR cost for Utility B.	• Assumed similar services are provided under each of the six services. • Adjusted obvious sub-service categories to keep the comparison consistent
Lack of information on level of service	• This study focuses on the financial lens. Therefore, financial data and cost drivers are the main data sources being provided and reviewed. By looking at the dollar amount of service costs, the City can gain a good sense of how the Utility compares to other municipalities. However, analyzing the cost from a financial angle only, without in-depth assessment of service levels, makes it difficult to draw conclusions on the reasonableness of the service costs.	• Assumed similar level of services are provided under each of the six services. • Analyzed the cost using multiple indicators

Data availability	• This study analyzed the service cost per service unit, which is an important indicator to evaluate value for money regardless of the cost drivers. To analyze the cost per service unit, the service unit data (e.g., service hours, procurement amount, number of invoices, etc.) are required. However, the availability of service unit data is a common challenge among all the municipalities due to the following key reasons:
	  • Data not being gathered
	  • Data available, but requires extensive research to pull the required data
	  • Knowledge holders unavailable to participate
		• Used FTEs as service unit when service unit data is not available

Review Limitations (Continued)

Exhibit 8 and 9 below summarize the quality of data provided by the City of Edmonton and each benchmarking participant.

Due to the limitation of data quality, Utility D will be included only in the Benchmarking Overview.

Exhibit 8: Benchmarking Respondents

Benchmarking Respondents	Data Quality Score
City of Edmonton	Medium
Utility A	Low
Utility B	Medium
Utility C	Medium
Utility D	Poor

Exhibit 9: Data Quality Rationale

Data Quality	Rationale
Poor	Include expenditure and service allocation as total without cost drivers – not sufficient for service-specific comparison.
Low	Include expenditure and allocation per service without cost drivers – can conduct high-level service-specific comparison.
Medium	Include expenditure and allocation per service with cost drivers and some service units – can conduct detailed service-specific comparison.
High	Include expenditure and allocation per service with cost drivers, including all relevant service units (e.g., number of purchase orders, number of invoices, etc.) – can conduct detailed service-specific comparison and value for money analysis.

Benchmarking Results

Benchmarking Overview

Exhibit 10 summarizes the Utility reviewed of each benchmarking municipality and its costing model, governance structure of Shared Services.

The Summary of City of Edmonton's and Utility A, B, C, D's Shared Services models is available at Appendix II.

Exhibit 10: Benchmarking Utility Summary

Participants	Utility Reviewed	Costing Model	Service Governance	FTE (2020)
City of Edmonton	Waste Services	Pooled cost allocation + Direct support cost	Centralized department+ individual departments providing service	524.1
Utility A	Waste & Recycling Services	Pooled cost allocation	Individual Business Units providing service	588
Utility B	Solid Waste Services	No actual allocation (Pooled cost allocation for provincial reporting)	Centralized department + Individual departments providing service	73.4
Utility C	Wastewater Services	Pooled cost allocation	Individual departments providing service	42
Utility D	Solid Waste Services	Pooled cost allocation + Direct support cost	Individual departments providing service	40

Benchmarking Overview

Exhibit 11 summarizes the Utility Revenue Sources from utility charges and property tax. Although the Utility revenue is not the scope of this project, this revenue structures show that the Utility operations costs (including Shared Services costs) are mainly recovered by Utility users, which highlighted the importance to ensure reasonable and fair service charges to Utilities.

Note that the City of Edmonton Waste Services is referred as "Waste Services" in the following analyses.

Exhibit 11: Municipal Utility Revenue Sources

Utility	Utility Charges and Other	Property Tax (including Municipal Levies)
Waste Services	100%	0%
Utility A	87%	13%
Utility B	68%	32%
Utility C	100%	0%
Utility D	100%	0%

Note: Others include MF and ICI collection Contracts, EPR/Stewardship Funding, Lease of Containers and other equipment, Operational Grants, Permits and License Fees, Tipping Fees, Sale of Compost, Sale of Recyclables, Surcharges/ Bylaw Enforcement, Sales of bins, bag tags, composter and other user pay, Sales of gas/power/heat, and Surplus.

Information Technology

How much does a service cost relative to the Utility's total expenditure?

Does the cost align with the service received?

 Not an Outlier	Cost allocation as a percentage of total annual expenditure of Utilities
 Not an Outlier	Services dollar value: Cost allocation for IT per FTE

Overall: City of Edmonton Waste Services' IT Services cost allocation is within range of its peers

Information Technology

Exhibit 12: IT Services Common Cost Drivers

Benchmarking Utilities/Municipalities	All IT Services
City of Edmonton	Number of Computers and Applications / Number of Accounts for applications (Google messaging, Telecom, etc.) / Cost allocated to users / Work Order Counts / Project Costs
Utility B	Number of User Accounts
Utility C	FTEs and Utility Annual Expenditure
Bellevue	Number of Computers and Printers on the network
Redmond	Number of Computers
Spokane	FTEs
Tacoma	Number of Computers, Servers, Databases

The common cost drivers for IT Services among benchmarking municipalities/municipal districts are summarized in Exhibit 12. These cost drivers were identified through both Primary and Secondary Benchmarking.

Exhibit 12 shows that number of devices (e.g., computers, printers, servers, etc.) or number of user accounts are commonly used as cost drivers to reflect the cost of IT services. The City of Edmonton's IT Services has a detailed list of sub-service categories and the corresponding cost drivers are tailored towards each sub-service category, which allows the costs to reflect the nature of a specific IT Services.

Exhibit 13 shows the IT Services Categories among Primary Benchmarking Utilities (interviewed by MNP). The cost allocation of these services are analyzed in the following pages.

Exhibit 13: IT Services Categories

Edmonton	Utility A	Utility B	Utility C
• Digital Enablement • Technology Planning • Corporate Data & Analytics, Infrastructure (Data centers) • ERP Applications / Corporate Systems • Business Applications • Information Security • Management Services overhead	• IT Staff Support & Project • TCM (Network access, lifecycle replacement) • Postage/Courier/Freight • Telecommunication • Printers and Photocopier • Reproduction/Printing	• Network Operations • Frontline Services • Applications Management • SAP Solutions. • Technology Security • Technology Modernization • Technology Solutions	• Repair parts • Telephone • Internet • Training & Education • Material & Supplies (Computer, Photocopier) • IT department overhead

Data Source 1: MNP Municipal Primary Benchmarking Interviews and Workbook
Data Source 2: Local Government Allocating Overhead Costs Audit

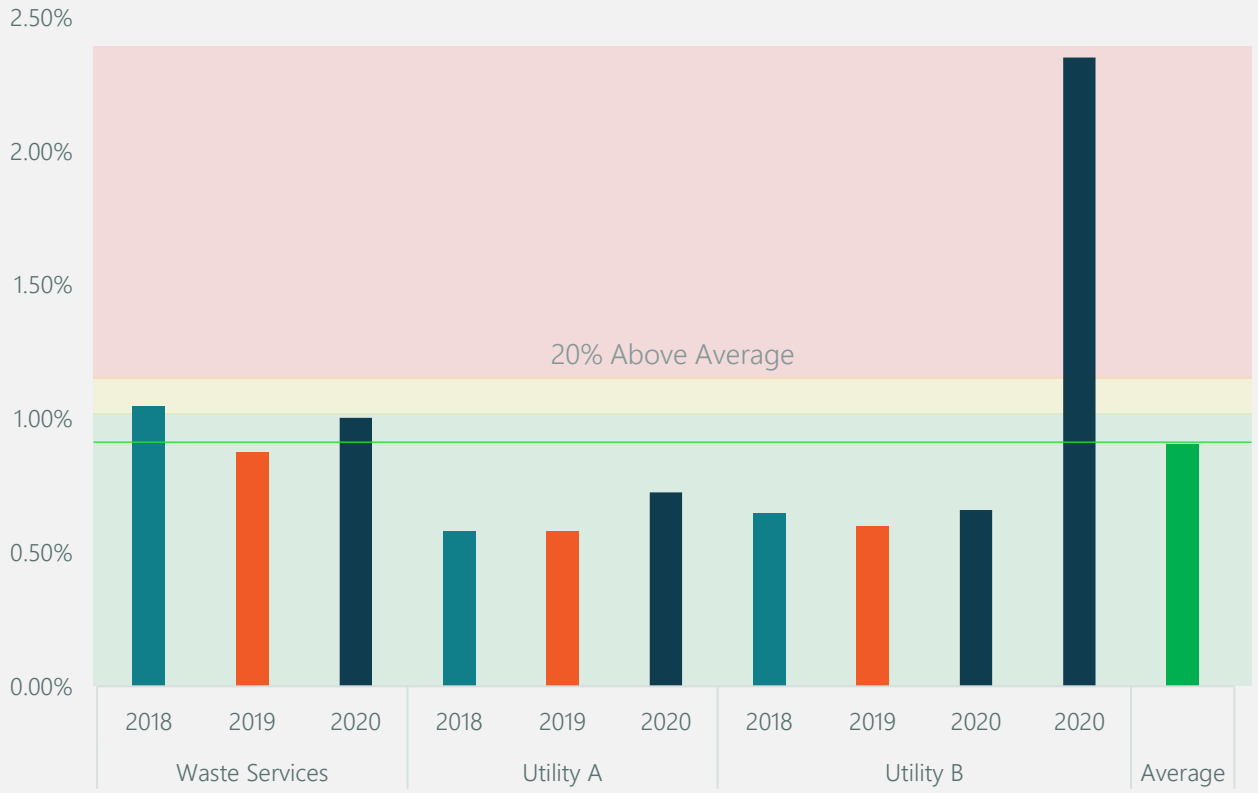
Note the cost driver using a combination of FTEs and Utility Annual Expenditure is from a participant who uses the same cost driver to allocate all Shared Services.

Information Technology

Not an Outlier

Edmonton

Exhibit 14: Cost allocation for IT as a percentage of total annual expenditures of Utilities



- The IT cost allocated to CoE's Waste Services as a percentage of Waste Services' total annual expenditure are in green (less than 10% above the Average) or yellow (between 10% and 20% above the Average) zones – slightly higher than the Average value.
- The IT supports for CoE's Waste Services appear to cover some additional service categories (e.g., digital enablement, technology planning, corporate data analytics) that are not provided by the Utility A and B's IT. This observation is not validated due to the lack of information on detailed service levels and categories. However, it is possible that some of the CoE's higher IT costs are driven by a larger scope of services.
- This cost indicator appears to be reasonable.

Data Source 1: MNP Municipal Primary Benchmarking Interviews and Workbook

Utility B: Data is Province Program Support Reporting cost allocation calculated using actual service costs
Utility C: The City is adopting a new Shared Services allocation model in the next budgeting cycle. Data is based on projected costs utilizing the new cost allocation method.

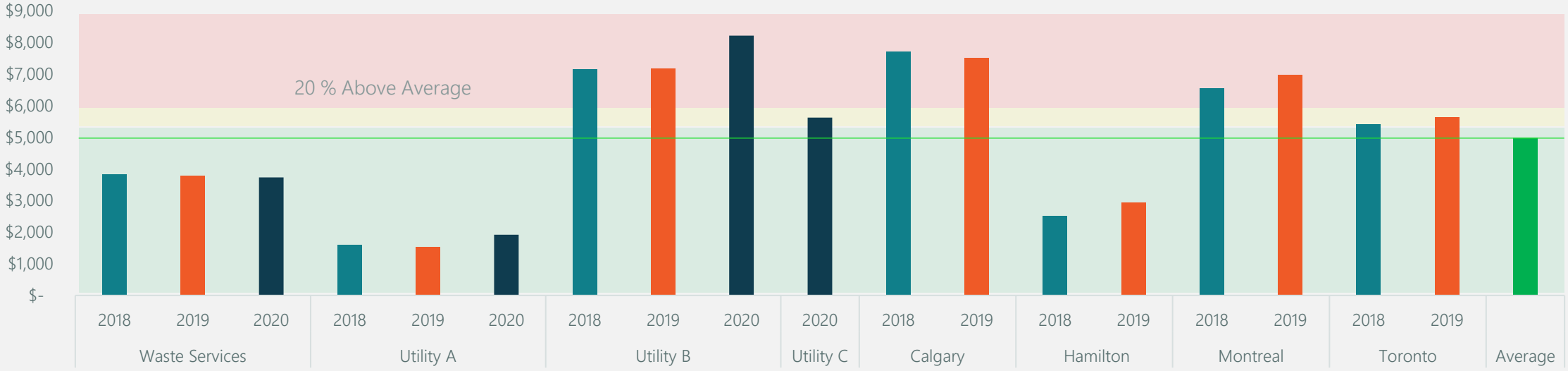
The **Average** value of all data points (including Waste Services) has been included as a reference point.

Information Technology

Not an Outlier

Edmonton

Exhibit 15: Cost allocation for IT per Supported FTE



Data Source 1 (Waste Services, Utility A, B, C): MNP Municipal Primary Benchmarking Interviews and Workbook
Data Source 3 (City-wide Calgary, Hamilton, Montreal, Toronto): Municipal Benchmarking Network

FTE: Waste Services' 2018 FTEs (561.6) were used to develop the 2018-2022 budget and therefore used here for the calculation. The FTEs of Utility A, B, and C in 2018, 2019, 2020 were used corresponding to their costing years.

Utility B: Data is Province Program Support Reporting cost allocation calculated using actual service costs
Utility C: The City is adopting a new Shared Services allocation model in the next budgeting cycle. Data is based on projected costs utilizing the new cost allocation method.

The **Average** value of all data points (including Waste Services) has been included as a reference point.

- The IT cost per FTE for CoE's Waste Services is below the Average. Therefore, it is not an outlier.
- For the purpose of this study, the cost per FTE for CoE's Waste Services appears to be reasonable considering all benchmarking results.

Human Resources

How much does a service cost relative to the Utility's total expenditure?

Does the cost align with the service received?

 Not an Outlier	Cost allocation as a percentage of total annual expenditure of Utilities
 Not an Outlier	Services dollar value: Cost allocation for HR per FTE

Overall: City of Edmonton Waste Services' Human Resources cost allocation is within range of its peers

Human Resources

Exhibit 16: HR Services Common cost drivers

Benchmarking Utilities/Municipalities	Recruitment	Payroll	Training and Other Supports
City of Edmonton	FTEs	FTEs	FTEs
Utility B	Number of Job Posting	Number of Direct Deposits	FTEs
Utility C	FTEs and Utility Annual Expenditure	FTEs and Utility Annual Expenditure	FTEs and Utility Annual Expenditure
Bellevue	FTEs	Number on payroll	FTEs
Redmond, Spokane, Tacoma	FTEs	FTEs	FTEs

Data Source 1: MNP Municipal Primary Benchmarking Interviews and Workbook
Data Source 2: Local Government Allocating Overhead Costs Audit

Note the cost driver using a combination of FTEs and Utility Annual Expenditure is from a participant who uses the same cost driver to allocate all Shared Services.

The common cost drivers for HR Services among benchmarking municipalities/municipal districts are summarized in Exhibit 16. The cost drivers are from both Primary and Secondary Benchmarking.

Exhibit 16 shows that number of FTEs is commonly used as cost drivers to reflect the cost of HR service. The cost drivers for HR Services at the City of Edmonton is on par with the benchmarking participants.

Exhibit 17 shows the HR Services Categories among Primary Benchmarking Utilities (interviewed by MNP). The cost allocation of these services are analyzed in the following pages.

Exhibit 17: HR Services Categories

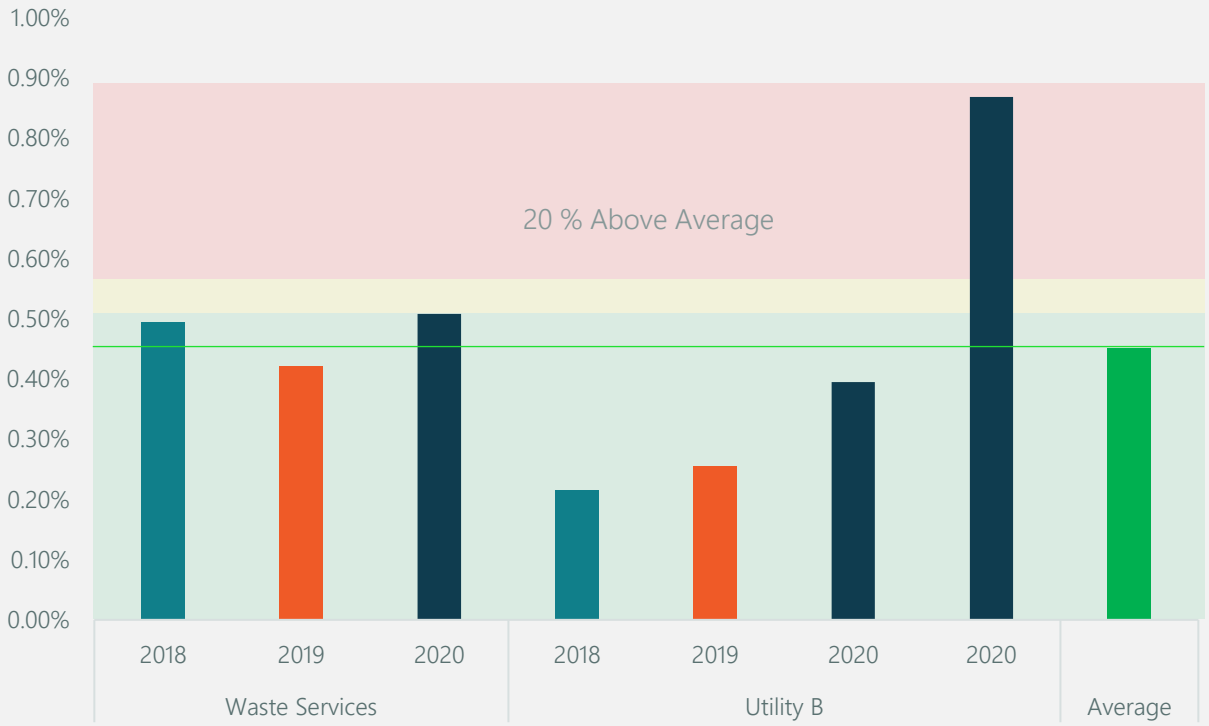
Edmonton	Utility A	Utility B	Utility C
• Compensation • Org Design & Transformation • Labour Relations • Payroll • Recruitment • Strategy • School of Business • HR Management	No ongoing HR cost allocated to Utility	• Innovative Solutions • Total Rewards • HR Programs and Planning • HR Business Services • Staffing • Training and Development • Payroll (moved from Financial Services for this study)	• Compensation & Benefits • HR Services • Training & Education • Payroll • Rewards & Recognition • Professional & Consulting Services • Recruitment

Human Resources

Not an Outlier

Edmonton

Exhibit 18: Cost allocation for HR as a percentage of total annual expenditures of Utilities



Data Source 1: MNP Municipal Primary Benchmarking Interviews and Workbook

Utility A: No HR cost is allocated to Solid Waste, so Utility A is excluded from this category.
Utility B 1: Data is Province Program Support Reporting cost allocation calculated using actual service costs.
Utility B 2: Payroll cost originally included under Financial Services is moved to HR cost for the purpose of this study.

Utility C: The City is adopting a new Shared Services allocation model in the next budgeting cycle. Data is based on projected costs utilizing the new cost allocation method.

The **Average** value of all data points (including Waste Services) has been included as a reference point.

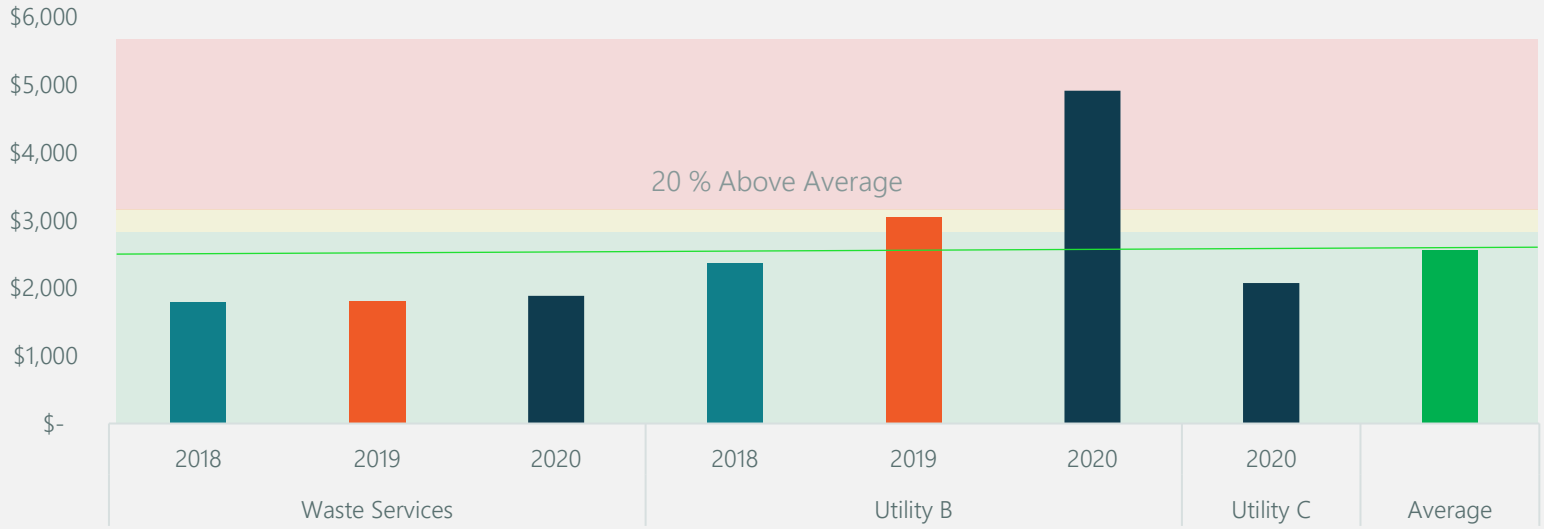
- The HR Shared Services cost allocation to CoE's Waste Services as a percentage of the Utilities' total annual expenditures are within the green zone thus seem reasonable.
- At Utility B, some of the HR Services for Solid Waste are provided in-house. For example, there is a Training and Development group within Public Works and Environmental Services Department that provides training to various Service Areas including Solid Waste Services. Those costs are not allocated back to Solid Waste or any other Program, except for some specific trainings. This means the actual HR cost for Solid Waste at Utility B is higher than the cost allocation presented.

Human Resources

Not an Outlier

Edmonton

Exhibit 19: Cost allocation for HR per FTE



Data Source 1: MNP Municipal Primary Benchmarking Interviews and Workbook

FTE: Waste Services' 2018 FTEs (561.6) were used to develop the 2018-2022 budget and therefore used here for the calculation. The FTEs of Utility A, B, and C in 2018, 2019, 2020 were used corresponding to their costing years.

Utility A: No HR cost is allocated to Utility A
Utility B 1: Data is Province Program Support Reporting cost allocation calculated using actual service costs
Utility B 2: Payroll cost originally included under Financial Services is moved to HR cost for the purpose of this study.
Utility C: The City is adopting a new Shared Services allocation model in the next budgeting cycle. Data is based on projected costs utilizing the new cost allocation method.

The **Average** value of all data points (including Edmonton) has been included as a reference point.

- The results in Exhibit 19 indicate that HR cost per FTE for Waste Services is on par with the rest of the benchmarking participants.
- Utility B had a significant increase of HR cost from 2019 to 2020. Most of the cost increase came from recruitment, which is reflected in the increases of its cost driver - number of job postings.

Financial Services

How much does a service cost relative to the Utility's total expenditure?

Does the cost align with the service received?

 Not an Outlier	Cost allocation as a percentage of total annual expenditure of Utilities
 Not an Outlier	Services dollar value: Cost allocation for Financial Services per FTE

Overall: Overall: City of Edmonton Waste Services' Financial Services cost allocation is within range of its peers

Financial Services

Exhibit 20: Financial Services Common cost drivers

Benchmarking Utilities/Municipalities	Accounts Receivable	Accounts Payable	Budgeting	Compensation Management	Program Accounting
City of Edmonton	Number of Invoices	Number of Invoices	Operating Expenses	Direct Support FTEs	Direct Support FTEs
Utility B	Number of transactions	Number of invoices paid	Estimated Time	FTEs	Estimated Time
Utility C	FTEs and Utility Annual Expenditure	FTEs and Utility Annual Expenditure	FTEs and Utility Annual Expenditure	FTEs and Utility Annual Expenditure	FTEs and Utility Annual Expenditure
Bellevue	Budget	Number of transactions	FTEs	N/A	Number of transactions
Redmond	Budget	Budget	Budget	N/A	Budget
Spokane	N/A	N/A	Operating Expenses	N/A	N/A

Data Source 1: MNP Municipal Primary Benchmarking Interviews and Workbook
Data Source 2: Local Government Allocating Overhead Costs Audit

Cost driver unavailable for Tacoma.

Note the cost driver using a combination of FTEs and Utility Annual Expenditure is from a participant who uses the same cost driver to allocate all Shared Services.

The common cost drivers for Financial Services among benchmarking municipalities/municipal districts are summarized in Exhibit 20. The cost drivers are from both Primary and Secondary Benchmarking.

Exhibit 20 shows that cost drivers for Financial Services are quite diverse among municipalities. There are multiple cost drivers to allocate Financial Services costs. Examples include number of transactions, number of invoices, budgets, and estimated time. Compared to its peers, the City of Edmonton uses a balanced approach between service level indicators (e.g., number of invoices and operating expenses) and direct support staff costs to allocate financial costs. This is a good example of the cost allocation choices municipalities face in balancing between expending effort to track cost indicators and allocating costs accurately.

The Financial Services categories provided to each Utility are summarized below.

Exhibit 21: Financial Services Categories

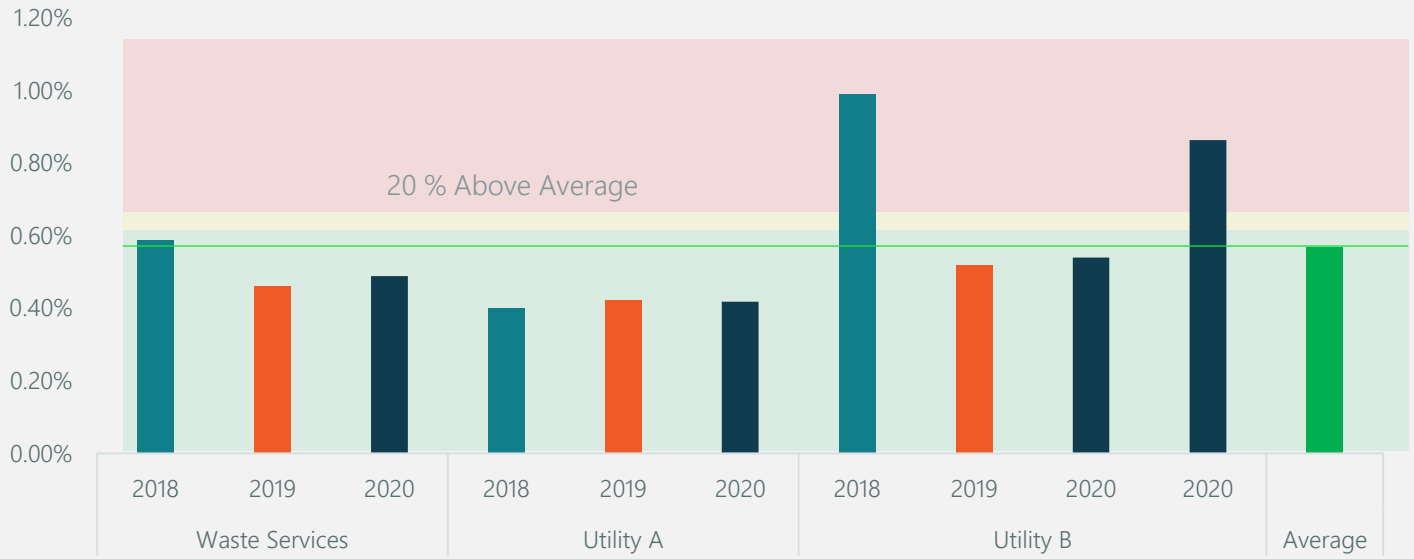
Edmonton	Utility A	Utility B	Utility C
• Accounts payable • Accounts receivable • Finance branch overhead	• Landfill customers billing • Direct (Financial) support • Finance Management / Finance Corp Functions / Branch Overhead-Indirect/Strategic Analysis • Budgeting • Program Accounting (various internal systems) • Rates analysis and modelling	• Accounts Receivable • Accounts Payable • Budgeting • Compensation Management • General Financial Services • Program Accounting	• Accounts Receivable • Accounts Payable • Budgeting • Payroll • Purchasing • Direct support for MFA borrowing and modeling • Statements • Financial oversight

Financial Services

Not an Outlier

- As a percentage of Waste Services' total annual expenditures, the Financial Services costs allocated to Waste Services at CoE are in the green zone.
- The sub-service categories provided to Waste Services at CoE include accounts payable, accounts receivable, and Finance branch overhead. Note that direct financial staff support, an on-demand service provided by Financial Services to Waste Services at an interdepartmental charge, is excluded from cost allocations shown here.
- Utility B's financial costs had significant fluctuations from 2018 to 2019. The differences resided in the Account Receivable allocation. This was mainly due to a cost driver change to Transit, which moved a significant amount of Account Receivable allocation from other City departments (including Finance) to Transit.
- This cost indicator appears to be reasonable relative to the CoE's peers.

Exhibit 22: Cost allocation for Financial Services as a percentage of total annual expenditures of Utilities



Data Source 1: MNP Municipal Primary Benchmarking Interviews and Workbook

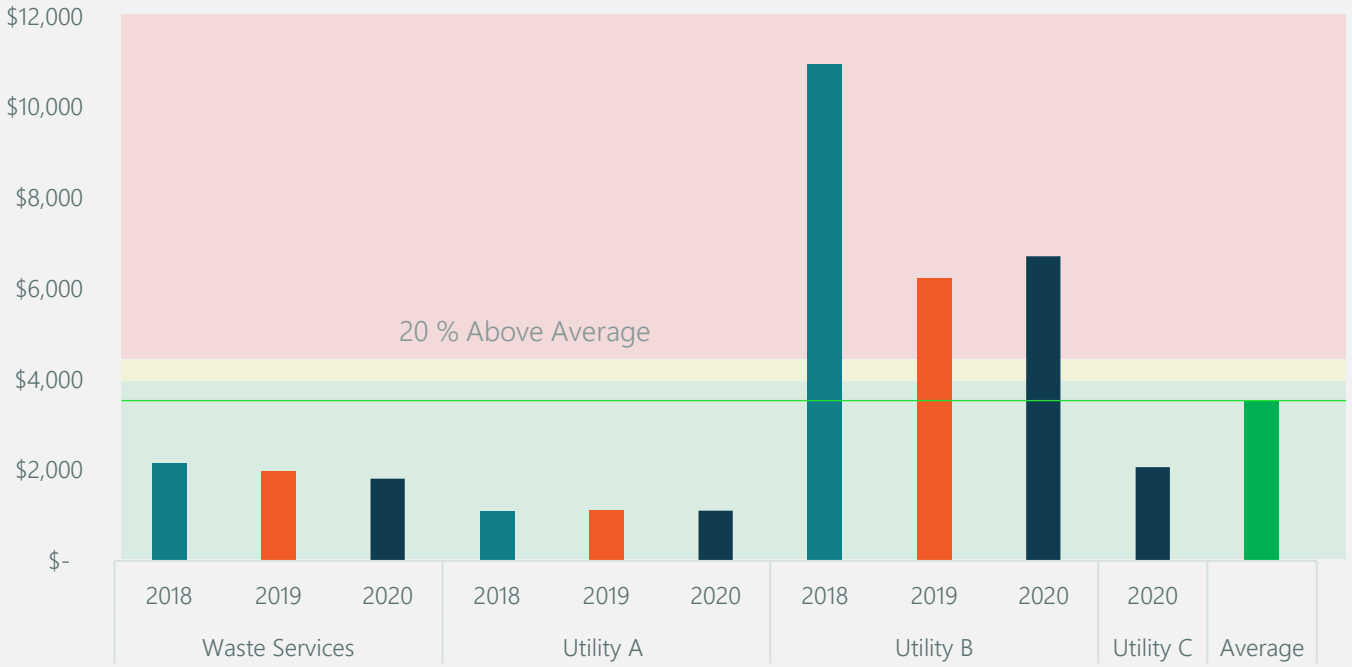
Utility B 1: Data is Province Program Support Reporting cost allocation calculated using actual service costs
Utility B 2: Payroll cost originally included under Financial Services is moved to HR cost for the purpose of this study.
Utility C: The City is adopting a new Shared Services allocation model in the next budgeting cycle. Data is based on projected costs utilizing the new cost allocation method.

The **Average** value of all data points (including Edmonton) has been included as a reference point.

Financial Services

Not an Outlier

Exhibit 23: Cost allocation for Financial Services per FTE



- As shown in Exhibit 23, the Financial Services cost per FTE for CoE's Waste Services is below the Average. This means that from cost per FTE's perspective, the CoE's Financial Services cost allocated to Waste Services is on par with its peers and appears to be reasonable.

Data Source 1: MNP Municipal Primary Benchmarking Interviews and Workbook

FTE: Waste Services' 2018 FTEs (561.6) were used to develop the 2018-2022 budget and therefore used here for the calculation. The FTEs of Utility A, B, and C in 2018, 2019, 2020 were used corresponding to their costing years.

Utility B 1: Data is Province Program Support Reporting cost allocation calculated using actual service costs.
Utility B 2: Payroll cost originally included under Financial Services is moved to HR cost for the purpose of this study.
Utility C: The City is adopting a new Shared Services allocation model in the next budgeting cycle. Data is based on projected costs utilizing the new cost allocation method.

The **Average** value of all data points (including Waste Services) has been included as a reference point.

Communications

How much does a service cost relative to the Utility's total expenditure?

Does the cost align with the service received?

 Not an Outlier	Cost allocation as a percentage of total annual expenditure of Utilities
 Not an Outlier	Cost allocation for Communications Services per FTE

Overall: City of Edmonton Waste Services' Communication cost allocation is within range of its peers

Communications

Exhibit 24: Communications Services Common cost drivers

Benchmarking Utilities/Municipalities	All Services
City of Edmonton	FTEs, Ticket Counts, and Number of Webpages
Utility B	Estimated Time
Utility C	FTEs and Utility Annual Expenditure

Data Source 1: MNP Municipal Primary Benchmarking Interviews and Workbook
Data Source 2: Local Government Allocating Overhead Costs Audit

Cost driver unavailable for Bellevue, Redmond, Spokane, and Tacoma.

Note the cost driver using a combination of FTEs and Utility Annual Expenditure is from a participant who uses the same cost driver to allocate all Shared Services.

The common cost drivers for Communications Services among benchmarking municipalities/municipal districts are summarized in Exhibit 24. The cost drivers are from both Primary and Secondary Benchmarking.

The City of Edmonton's approach of allocating most Communications costs based on FTEs is common. Waste Services at the City of Edmonton utilizes a fair amount of communications services for 311, inside information, web office, and public communications. Those ongoing services are provided by direct support staff.

Another example of a Communications cost driver is Estimated Time, which can be time consuming to track the data.

Exhibit 25 shows the Communications Services Categories among Primary Benchmarking Utilities (interviewed by MNP). The cost allocation of these services are analyzed in the following pages.

Exhibit 25: Communications Services Categories

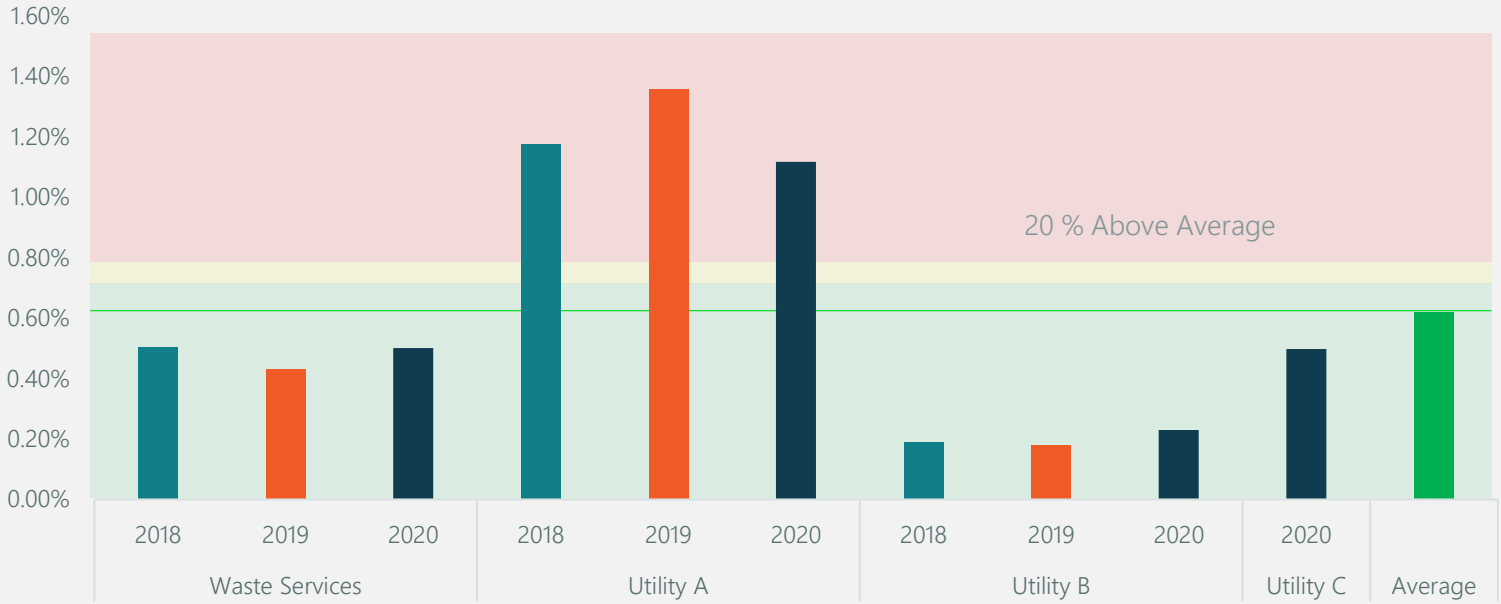
Edmonton	Utility A	Utility B	Utility C
• Communications • 311 • Inside Information • Web Office • Marketing • Engagement • External Relations	• Communication (SW & OH) • Creative Services	• Media Relations & Legislative Support • Public Information Note: Web Services, Call Center Services, Counter Services are not allocated to any City departments	• Community Communications • Community Engagement • Corporate Communications • Media Relations • Public Relations • Marketing

Communications

Not an Outlier

Edmonton

Exhibit 26: Cost allocation for Communications as a percentage of total annual expenditures of Utilities



- Exhibit 26 shows that CoE's Communications costs allocated to Waste Services are in the green zone.
- This cost indicator appears to be reasonable relative to the CoE's peers.

Data Source: MNP Municipal Primary Benchmarking Interviews and Workbook

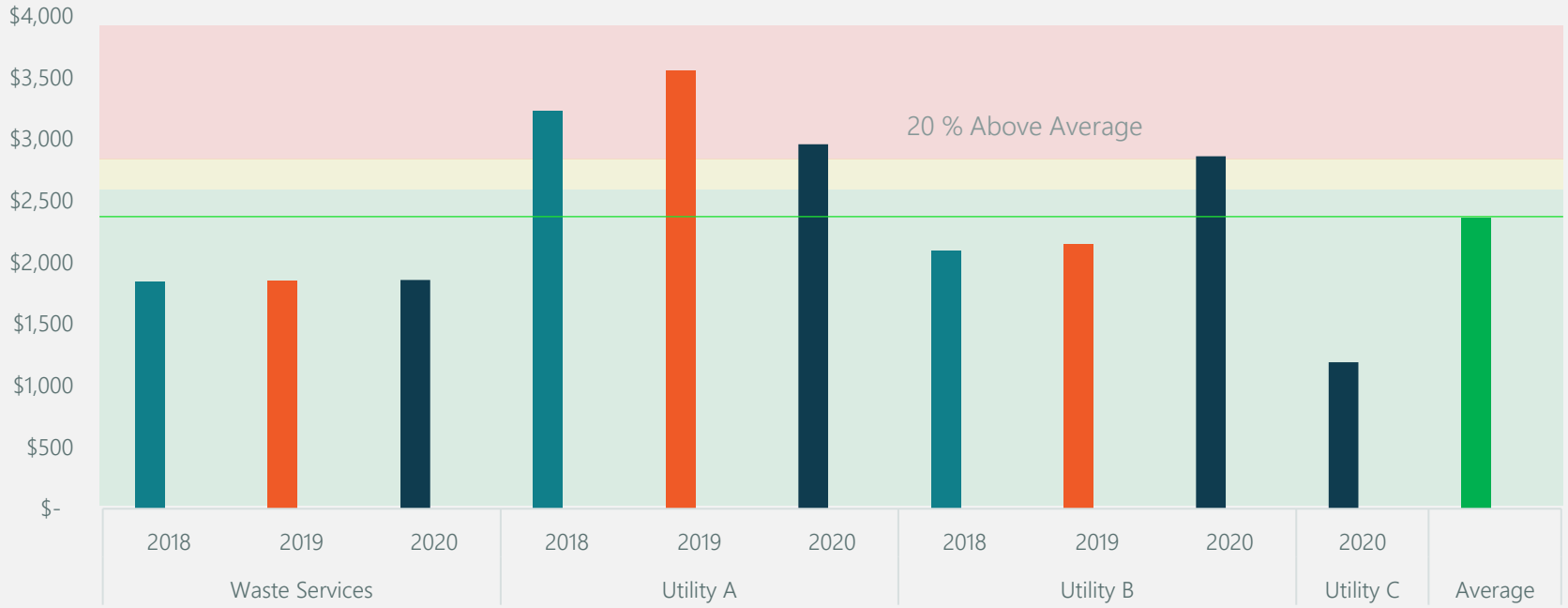
Utility B: Data is Province Program Support Reporting cost allocation calculated using actual service costs
Utility C: The City is adopting a new Shared Services allocation model in the next budgeting cycle. Data is based on projected costs utilizing the new cost allocation method.

The **Average** value of all data points (including Waste Services) has been included as a reference point.

Communications

Not an Outlier

Exhibit 27: Cost allocation for Communications per FTE



- The Communications cost per FTE allocated through Shared Services at Edmonton is at the lower end when compared to other municipalities.

Data Source: MNP Municipal Primary Benchmarking Interviews and Workbook

FTE: Waste Services' 2018 FTEs (561.6) were used to develop the 2018-2022 budget and therefore used here for the calculation. The FTEs of Utility A, B, and C in 2018, 2019, 2020 were used corresponding to their costing years.

Utility B: Data is Province Program Support Reporting cost allocation calculated using actual service costs
Utility C: The City is adopting a new Shared Services allocation model in the next budgeting cycle. Data is based on projected costs utilizing the new cost allocation method.

The **Average** value of all data points (including Waste Services) has been included as a reference point.

Law
(Legal Services)

How much does a service cost relative to the Utility's total expenditure?

Does the cost align with the service received?

 Not an Outlier	Cost allocation as a percentage of total annual expenditure of Utilities
 Not an Outlier	Services dollar value: Cost allocation for Legal Services per FTE

Overall: City of Edmonton Waste Services' Law cost allocation is within range of its peers

Law (Legal Services)

Exhibit 28: Legal Services Common cost drivers

Benchmarking Utilities/Municipalities	All Services
City of Edmonton	Pending or closed files in tracking system / FTEs
Utility B	Estimated Time
Utility C	FTEs and Utility Annual Expenditure
Bellevue	FTEs
Redmond	Estimated Time & Expenses

Data Source 1: MNP Municipal Primary Benchmarking Interviews and Workbook
Data Source 2: Local Government Allocating Overhead Costs Audit

Cost driver unavailable for Spokane and Tacoma.

Note the cost driver using a combination of FTEs and Utility Annual Expenditure is from a participant who uses the same cost driver to allocate all Shared Services.

The common cost drivers for Legal Services among benchmarking municipalities/municipal districts are summarized in Exhibit 28. The cost drivers are from both Primary and Secondary Benchmarking.

The Legal Services costs are largely allocated through FTEs, estimated time, or expenses. The City of Edmonton also tracks number of pending/closed files, which is an indicator for amount of service received. This cost driver is often easier to track than estimated time and more accurate than FTEs.

Exhibit 29 shows the Legal Services Categories among Primary Benchmarking Utilities (interviewed by MNP). The cost allocation of these services are analyzed in the following pages.

Exhibit 29: Legal Services Categories

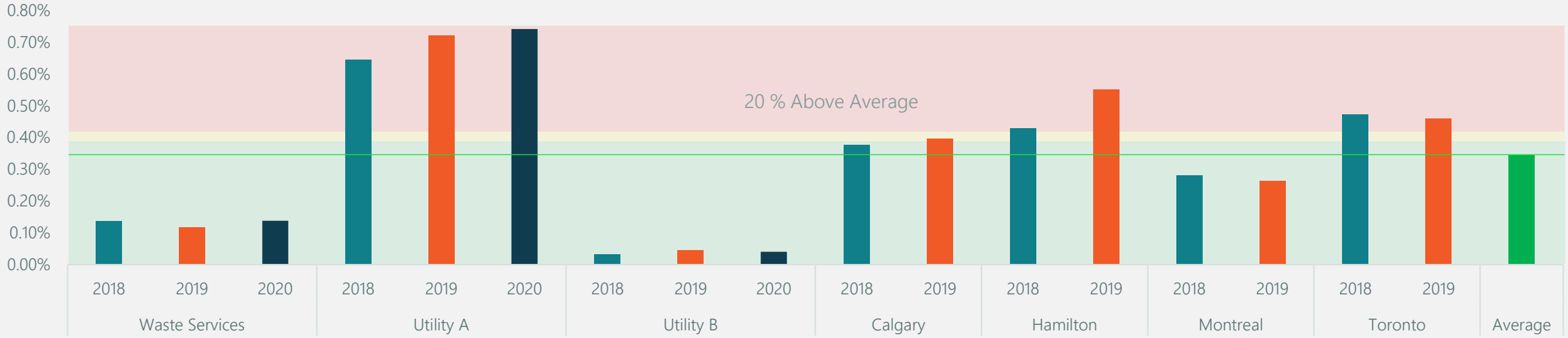
Edmonton	Utility A	Utility B	Utility C
• Legal Services • Risk Management • Corporate Security	• Insurance • Legal fee • Security Services • Security Investigations • Security Advisor • Security Maintenance	• Legal Services • Labour Relations	Legal service not part of Shared Services

Law (Legal Services)

Not an Outlier

Edmonton

Exhibit 30: Cost allocation for Law/Legal as a percentage of total annual expenditures



Data Source 1 (Waste Services, Utility A, B, C): MNP Municipal Primary Benchmarking Interviews and Workbook
Data Source 3 (City-wide Calgary, Hamilton, Montreal, Toronto): Municipal Benchmarking Network

Utility B: Data is Province Program Support Reporting cost allocation calculated using actual service costs
Utility C: Legal Services is not part of Shared Services

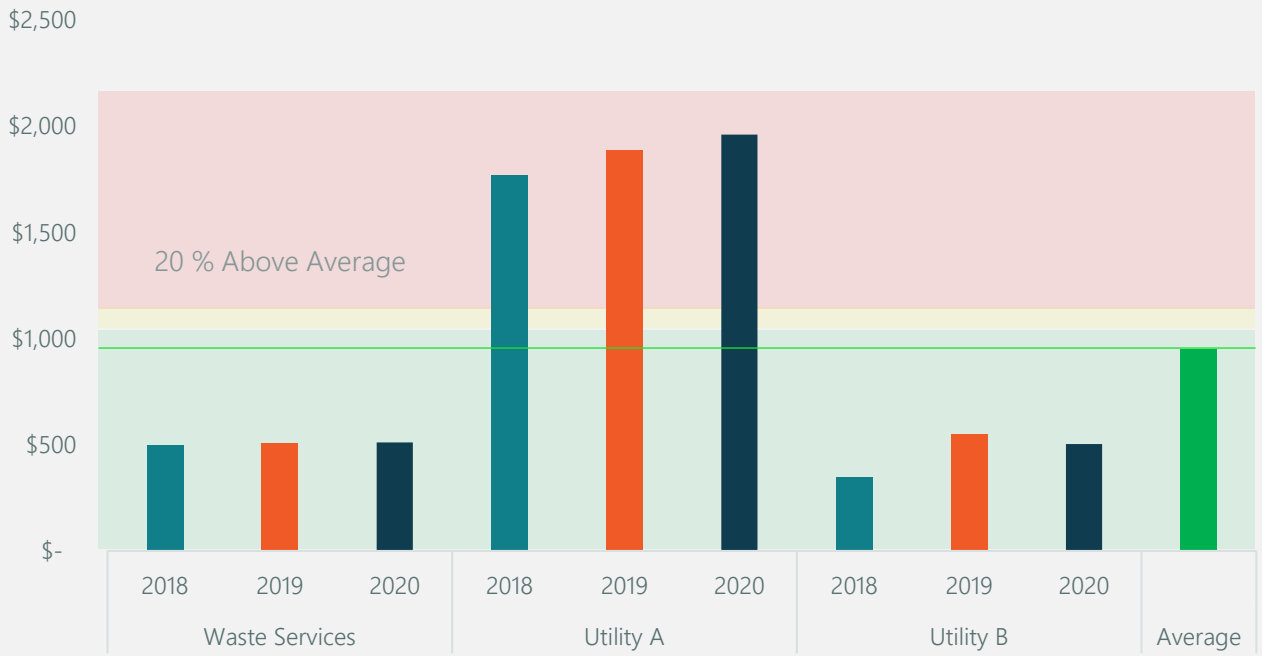
The **Average** value of all data points (including Waste Services) has been included as a reference point.

- CoE's Waste Services costs are in the green zone and appear to be reasonable.

Law (Legal Services)

Not an Outlier

Exhibit 31: Cost allocation for Law/Legal per FTE



- The Legal Services cost per FTE for CoE's Waste Services is on par with or lower than other participating benchmarking municipalities.

Data Source 1: MNP Municipal Primary Benchmarking Interviews and Workbook

FTE: Waste Services' 2018 FTEs (561.6) were used to develop the 2018-2022 budget and therefore used here for the calculation. The FTEs of Utility A, B, and C in 2018, 2019, 2020 were used corresponding to their costing years.

Utility B: Data is Province Program Support Reporting cost allocation calculated using actual service costs
Utility C: Legal Services is not part of Shared Services

The **Average** value of all data points (including Edmonton) has been included as a reference point.

Procurement

How much does a service cost relative to the Utility's total expenditure?

Does the cost align with the service received?

 Not an Outlier	Cost allocation as a percentage of total annual expenditure of Utilities
 Not an Outlier	Services dollar value: Cost allocation for Procurement per FTE

Overall: City of Edmonton Waste Services' Procurement cost allocation is within range of its peers (based on annual expenditure of Utility)

Procurement

Exhibit 32: Procurement Services Common cost drivers

Benchmarking Utilities/Municipalities	All Services
City of Edmonton	FTEs
Utility B	Number of Transactions
Utility C	FTEs and Utility Annual Expenditure
Bellevue	Budget
Redmond	Estimated Time

Data Source 1: MNP Municipal Primary Benchmarking Interviews and Workbook
Data Source 2: Local Government Allocating Overhead Costs Audit

Cost driver unavailable for Spokane and Tacoma.

Note the cost driver using a combination of FTEs and Utility Annual Expenditure is from a participant who uses the same cost driver to allocate all Shared Services.

The common cost drivers for Procurement Services among benchmarking municipalities/municipal districts are summarized in Exhibit 32. The cost drivers are from both Primary and Secondary Benchmarking.

Procurement Services are often delivered on a project-basis. To properly allocate procurement costs, municipalities use a number of indicators to reflect the service levels – for example, number of transactions, number of purchase orders, budget, or procurement amount. The City of Edmonton uses FTEs as a cost driver. This approach does not reflect the cost or value of procurement services received. However, using FTEs as cost driver does not require any information gathering on procurement efforts, which avoids large amount of research and data entry time. It should be noted though that most municipalities track the procurement data (e.g., number purchase orders or procurement contract dollar amounts).

Exhibit 33 shows the Procurement Services Categories among Primary Benchmarking Utilities (interviewed by MNP). The cost allocation of these services are analyzed in the following pages.

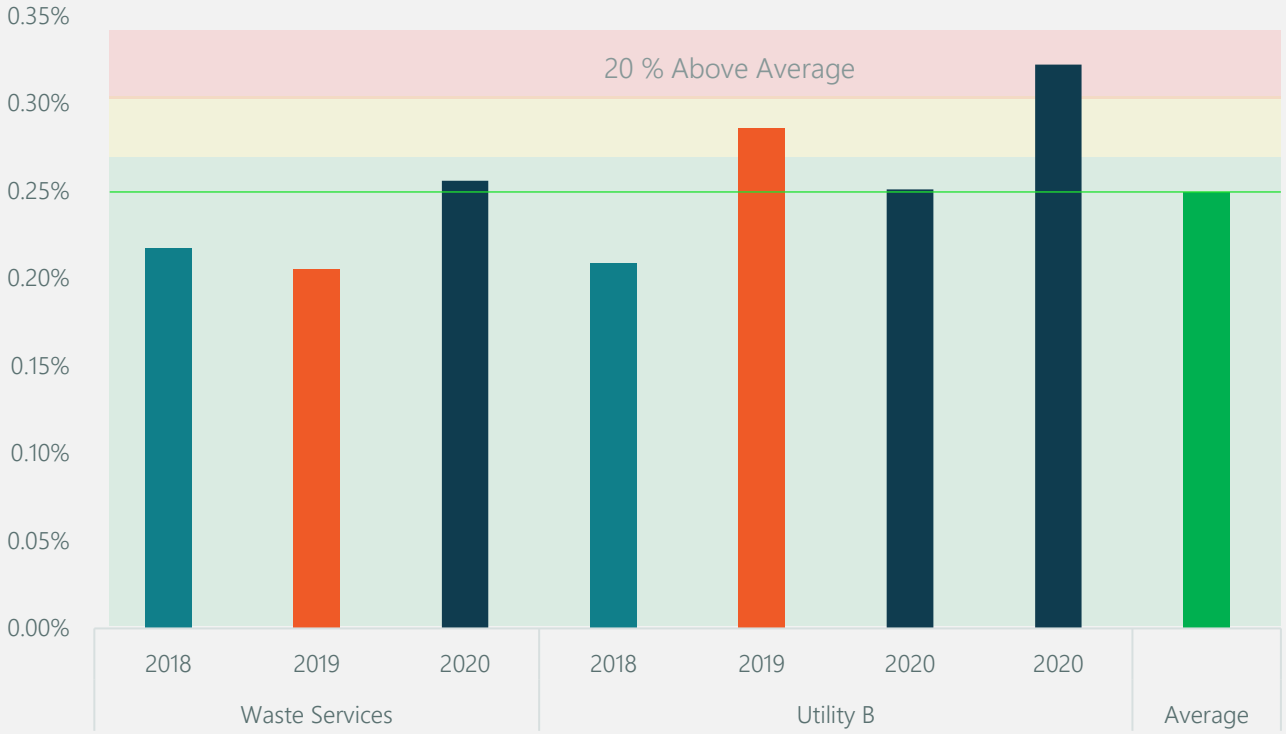
Exhibit 33: Procurement Services Categories

Edmonton	Utility A	Utility B	Utility C
• Continuous Improvement • Mail • Procurement • Supply Chain Management	• Only ongoing stores overhead is charged to Utility	• Procurement • Strategic Sourcing • Energy Management & Strategy	• Purchase Services • Advertising • Materials & Supplies • Postage & Freight • Contract Services • Central Store Material • Professional & Consulting Services

Procurement

Not an Outlier

Exhibit 34: Cost allocation for Procurement as a percentage of total annual expenditures of Utilities



- The Procurement cost allocated to Waste Services at Edmonton as a percentage of total Waste Services' expenditure is on par with other benchmarking municipalities.

Data Source 1: MNP Municipal Primary Benchmarking Interviews and Workbook

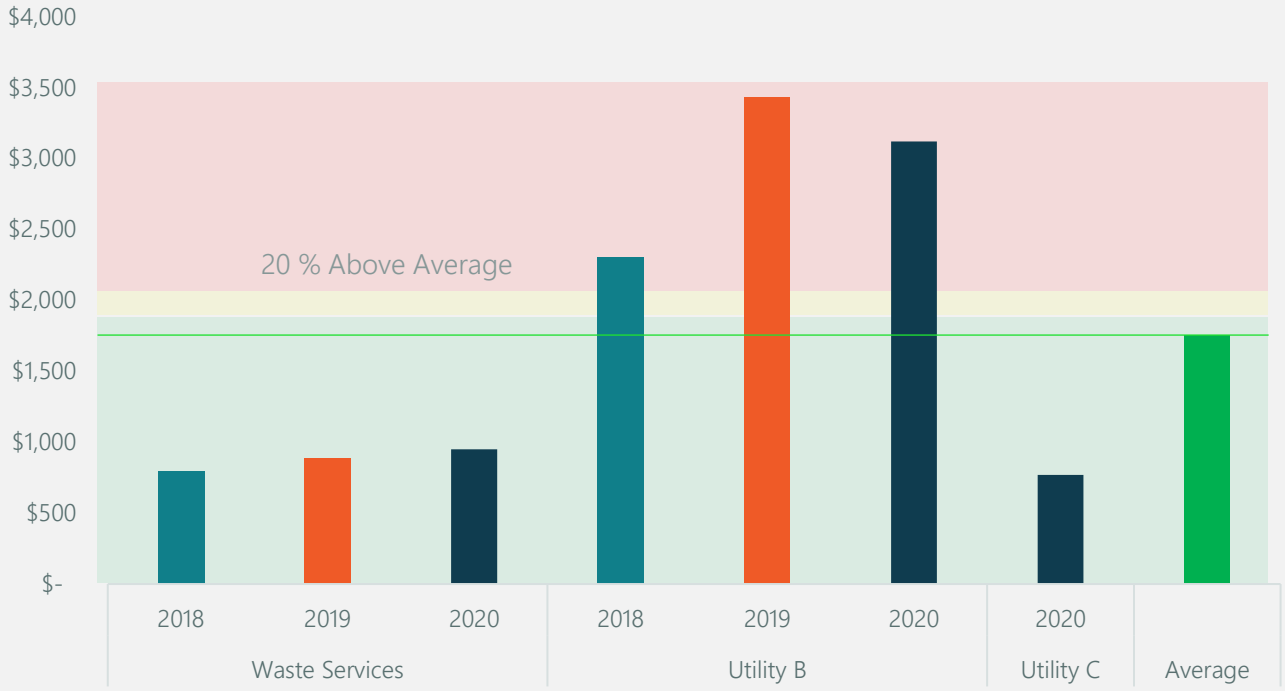
Utility A: Waste is only charged with Store Overhead for Supply/Procurement Services. Therefore, data is regarded as outliers and not compared here.
Utility B: Data is Province Program Support Reporting cost allocation calculated using actual service costs
Utility C 1: The Procurement costs are under Financial Services at Utility C and were isolated for comparison in this study.
Utility C 2: The City is adopting a new Shared Services allocation model in the next budgeting cycle. Data is based on projected costs utilizing the new cost allocation method.

The **Average** value of all data points (including Waste Services) has been included as a reference point.

Procurement

Not an Outlier

Exhibit 35: Cost allocation for Procurement per FTE



Data Source 1: MNP Municipal Primary Benchmarking Interviews and Workbook

FTE: Waste Services' 2018 FTEs (561.6) were used to develop the 2018-2022 budget and therefore used here for the calculation. The FTEs of Utility A, B, and C in 2018, 2019, 2020 were used corresponding to their costing years.

Utility A: Waste is only charged with Store Overhead for Supply/Procurement Services. Therefore, data is regarded as outliers and not compared here.
Utility B: Data is Province Program Support Reporting cost allocation calculated using actual service costs
Utility C 1: The Procurement costs are under Financial Services at Utility C and were isolated for comparison in this study.
Utility C 2: The City is adopting a new Shared Services allocation model in the next budgeting cycle. Data is based on projected costs utilizing the new cost allocation method.

The **Average** value of all data points (including Waste Services) has been included as a reference point.

- The Procurement cost per FTE for Edmonton's Waste Services is on par with or lower than other participating benchmarking municipalities.

Findings Summary

Findings Summary

Waste Services engaged MNP to study and assess the reasonableness of its cost allocations for six Shared Services: Information Technology (IT), Human Resources (HR), Financial Services, Communications, Law (Legal Services), and Procurement. MNP's approach for this study was grounded in conducting Primary and Secondary Benchmarking research of Shared Services cost allocations other municipal Utilities for the year 2018 through 2020. We then assessed reasonableness by comparing those to the Shared Services costs allocated to Waste Services on the bases of cost as a percentage of the Utility's total expenditures and cost per service unit (e.g., cost per FTE). If Waste Services' cost allocation for a service was below 20% above the average costs of the benchmarking Utilities and cities for that service, it was considered to be reasonable.

Through this study, we found that the costs allocated to Waste Services for IT, HR, Financial Services, Communications, Law, and Procurement seemed reasonable for each of the years 2018 through 2020, on both assessment bases.

MNP also notes that cost allocations at Waste Services and the comparator municipalities in this study are impacted by variations in the sub-service categories included within the municipalities' service areas, differences in service levels provided, variances in utility operations, and other differences between comparators.

Exhibit 36 below summarizes this study's findings.

Exhibit 36: Summary of Findings

Shared Services	Cost as Percentage of Total Expenditures	Cost Per Service Unit	Reasonableness
Information Technology	Not an Outlier	Not an Outlier	Reasonable
Human Resources	Not an Outlier	Not an Outlier	Reasonable
Financial Services	Not an Outlier	Not an Outlier	Reasonable
Communications	Not an Outlier	Not an Outlier	Reasonable
Law	Not an Outlier	Not an Outlier	Reasonable
Procurement	Not an Outlier	Not an Outlier	Reasonable

Appendices

Appendices

- Appendix I: Shared Services Cost Allocation Review Interview Guide
- Appendix II: Benchmarking Utilities Shared Services Summary

Appendix I

- Shared Services Cost Allocation Review Interview Guide
  - ❑ Interview Guide
  - ❑ Appendix A – City of Edmonton Shared Services Background
  - ❑ Appendix B – Service Profile Workbook Example

SHARED SERVICES COST ALLOCATION REVIEW

Interview Guide

PURPOSE OF THE INTERVIEW

The Waste Services branch at the City of Edmonton is undergoing a benchmarking study to validate the reasonableness of Shared Services costs allocated to the Utility. The City of Edmonton has engaged MNP to conduct the benchmarking study of municipally-owned utilities operating under a full cost accounting approach that allocates Shared Services. The scope of this study regards costs allocations, methodologies, policies, procedures, and service levels. Appendix A includes the background of the City of Edmonton's Shared Services.

This interview will start with general questions so that you can provide an overall landscape of the Shared/Corporate Services of your organization. The second half of the interview will be around questions designed for each service provided to Waste Services to build a service profile. We will follow up with an updated service profile workbook template for you to populate afterward for services we may not discuss during the interview. We recognize some information (i.e., especially around costs) may not be available due to constraints of timeline, your workload, confidentiality, and data readiness. We are determined to make the process efficient and willing to work with you to gather alternative data/formats.

GENERAL QUESTIONS

1. Shared Services
   a. How are the operations of all City departments supported? (e.g., City of Edmonton employs Shared Services + Intra-municipal Services + Fleet & Facilities Services)
   b. When did the City start employing Shared Services model?
   c. What are the services incorporated under Shared/Corporate Services?

      i. ☐ Information Technology
      ii. ☐ Financial Services
      iii. ☐ Human Resources
      iv. ☐ Fleet
      v. ☐ Facility Management
      vi. ☐ City Clerks
      vii. ☐ Intergovernmental and Corporate Strategy
      viii. ☐ Customer Service and Communications
      ix. ☐ Law
      x. ☐ Real Estate and Development Services
      xi. ☐ Resilience and Infrastructure
      xii. ☐ Supply
      xiii. ☐ Corporate Analytics and Innovation
      xiv. ☐ Environmental and Safety Management
      xv. Others

   d. How is Shared/Corporate Services governed? Are all the service providers under a central department? Or do multiple individual departments provide corporate services across the municipality?
   e. How does the City decide/evaluate the level of services? Is there a Shared Service Agreement or Contract being used?
   f. How are service recipients prioritised?
   g. What is the general satisfaction of Shared/Corporate Services? How is it measured?

2. Waste Services
    a. Does Waste Services operate under a full cost accounting approach?
    b. What are the gross annual expenditures of Waste Services for 2018, 2019, 2020 (i.e., Financial Statement)?
    c. What is the number of FTEs for Waste Services?
3. Cost Allocation
    a. What Cost Allocation Model is used by the City's Shared Services? (e.g., department costing, step-down costing, activity-based costing, a combination, etc.)
    b. How often does the City review/update the Shared Services cost allocation model/rates?
    c. Are there actual costs transactions to the receiving departments?
    d. What is the process to allocate Shared Services costs?
    e. In general, what constitutes the Shared Services costs to Waster Services? (e.g., City of Edmonton has direct support staff costs + Indirect overhead distributed based on Cost Drivers)

SERVICE PROFILE WORKBOOK

For each service listed below, please answer the following questions. We will populate a Service Profile Workbook (i.e., example in Appendix B) with the answers.

a. What are the services provided under this category?
b. What are the day-to-day Operational activities?
c. How are the costs broken down (e.g., direct staff support/program costs, pool of overhead, etc.)?
d. What are the cost drivers that decide the cost allocation?
e. What are the cost drivers counts of Waste Services and all City Departments?
f. What are the cost allocations to Waste Services in 2018, 2019, and 2020 (i.e., If detailed breakdown is not available, total costs or percentage of Waste Service Gross Annual Expenditure is acceptable.)?

1. Information Technology

Service Category	Service Description	Cost Drivers	Waste Services Cost Driver Counts	Total Cost Drivers Counts	2018 Cost Allocation	2019 Cost Allocation	2020 Cost Allocation

2. Financial Services

Service Category	Service Description	Cost Drivers	Waste Services Cost Driver Counts	Total Cost Drivers Counts	2018 Cost Allocation	2019 Cost Allocation	2020 Cost Allocation

3. Human Resources

Service Category	Service Description	Cost Drivers	Waste Services Cost Driver Counts	Total Cost Drivers Counts	2018 Cost Allocation	2019 Cost Allocation	2020 Cost Allocation

4. Fleet Services

Service Category	Service Description	Cost Drivers	Waste Services Cost Driver Counts	Total Cost Drivers Counts	2018 Cost Allocation	2019 Cost Allocation	2020 Cost Allocation

5. Facility Management Services

Service Category	Service Description	Cost Drivers	Waste Services Cost Driver Counts	Total Cost Drivers Counts	2018 Cost Allocation	2019 Cost Allocation	2020 Cost Allocation

6. Central Management (i.e., City Manager, City Clerk, Office of City Audit, Mayor & Council, Intergovernmental and Corporate Strategy)?

Service Category	Service Description	Cost Drivers	Waste Services Cost Driver Counts	Total Cost Drivers Counts	2018 Cost Allocation	2019 Cost Allocation	2020 Cost Allocation

7. Other Services

We will provide you with an updated Service Profile Workbook template for services not discussed based on the discussions during the interview. Please gather information accordingly and populate the tables. The possible services are:

i. Customer Service and Communications
ii. Law
iii. Real Estate and Development Services
iv. Resilience and Infrastructure
v. Supply
vi. Corporate Analytics and Innovation
vii. Environmental and Safety Management
viii. Others

APPENDIX A – CITY OF EDMONTON SHARED SERVICES BACKGROUND

The City of Edmonton employs a Shared Services model whereby support services required for the operations of all City businesses are provided through centralized areas of expertise. This approach takes advantage of efficiencies gained through economies of scale and opportunities to provide more robust systems and services. The Waste Services branch operates under a full cost accounting approach thus is required to pay for its portion of Shared Services.

For on-demand services not incorporated in Shared Services, direct charges for services are billed to Waste Services. On-demand services may include dedicated support for communications and engagement initiatives, on-demand building repairs and maintenance, postings of vacant positions to job site security services for special events. The table below summarizes all services provided supporting the City's operations and their cost drivers for deciding service cost allocations.

Table 1 Overview of City of Edmonton Shared & Interdepartmental Services

Service Category	Shared Services Cost Drivers	Shared Service	On-Demand
Corporate Allocation (Central Management)	• Department Gross Expenditure Budget	X	
Communications & Public Engagement	• Approved Communications FTEs	X	X
Customer Information Services	• Ticket Counts • FTEs • Number of Web Pages	X	
Financial Services	• Number of Invoices • Department Gross Expenditure Budget • Direct Support FTEs	X	X
Safety & Employee Health	• FTEs	X	X
Human Resources	• FTEs	X	X
Law	• Number of Pending or Closed Files • FTEs with Boards & Authorities	X	X
Corporate Procurement and Supply Services	• FTEs with Boards & Authorities	X	X

APPENDIX A – CITY OF EDMONTON SHARED SERVICES BACKGROUND

Service Category	Shared Services Cost Drivers	Shared Service	On-Demand
Information Technology	• Number of PCs and Applications • Number of Accounts • Number of Phone Lines • Incident/Work Order Counts • Total Project Costs	X	
Real Estate & Housing	• Square Footage • Direct Cost Recovery	X	
Corporate Strategy	• Department Gross Expenditure Budget	X	
Transportation Operations			X
Fleet Services	• Fuel Consumption • Labour Hours		X
Facilities and Landscape Infrastructure	• Labour Hours		X

APPENDIX B – SERVICE PROFILE WORKBOOK EXAMPLE

Financial Services

Note:

1. The numbers and information below are only for example purposes. They are not reflections of data belonging to any benchmarking participants nor the City of Edmonton.
2. If detailed breakdowns are not available, total costs or percentage of Waste Service Gross Annual Expenditure is acceptable.

Service Category	Service Description	Cost Drivers	Waste Services Cost Driver Counts	Total Cost Drivers Counts	2018 Cost Allocation	2019 Cost Allocation	2020 Cost Allocation
Accounts Payable		Number of Invoices	*5,000*	*50,000*	$70,000	$75,000	$80,000
Accounts Receivable		Number of Invoices	4,500	*150,000*	$70,000	$75,000	$80,000
Direct Staff Support	• Remittance processing • Credit management and collections, • Bylaw ticket administration	Direct Support FTEs	*5*	*50*	$900,000	$925,000	$950,000
Branch Overhead-Indirect		Department Gross Expenditure	*$200,000,000*	*$2,000,000,000*	$90,000	$100,000	$150,000

Appendix II

- Benchmarking Utilities Shared Services Summary
  - ❑ City of Edmonton
  - ❑ Utility A
  - ❑ Utility B
  - ❑ Utility C
  - ❑ Utility D

City of Edmonton Affiliate Transactions

Utility Reviewed: Waste Services

The City of Edmonton's internal operations are supported through Shared Services and Interdepartmental Services. The City adopted the Shared Services model in 1997. Currently, the majority of Shared Services are provided by the Financial & Corporate Services department with customer service and communications provided by the Communication & Engagement department. Cost allocations generally follow a cost driver method and are coordinated by the Financial & Corporate Services department.

To allocate the centralized Shared Services costs, the City uses various cost drivers, including FTE, annual expenditure, number of computers, and number of service tickets (among others). In addition to pooled cost allocation, ongoing direct staff support and recovery costs are allocated through Shared Services.

Since 2019, the City has adopted a 4-year budgeting cycle. The Shared Services cost allocation is estimated at the beginning of each budgeting cycle and allocated throughout the 4-year period. No adjustments are made to the actual allocations at the end of a fiscal year to account for any differences between the estimated and actual Shared Services costs.

Since 1997, the Administration has taken several steps to enhance the City's Shared Services model and increase service delivery operational efficiency and effectiveness. Service Level Agreements (SLA) that serve as contracts between the service providers and the users of those services were established for Shared Services in 1998. However, the SLA is no longer in use. In 2018, the City adopted an Enterprise Performance Management (EPM) Policy. "It guides our work by giving us data that tells us how we are doing and where we can improve. Measuring our performance enables data-driven decision-making and drives continuous learning and improvement. "

The Waste Services Branch uses a full cost accounting approach, which means all operations costs are recovered through user fees.

Utility A Shared Services Overview

- Information Technology
- Financial Services
- Fleet Services
- Facility Management Services
- Communications and Customer Services
- Legal Services
- Supply Services
- Corporate Analytics and Innovation
- Environmental and Safety Management
- Roads
- Other Services

Utility Reviewed: Waste & Recycling Services

This benchmarking participant uses Shared Services to support its operations. Unlike municipalities with a centralized department that provides most of the Shared Services, Utility A's Shared Services are provided by individual business units without central governance and coordination. Each business unit calculates its cost allocation at the beginning of a 4-year budgeting cycle and can make amendments annually. Note that this municipality is currently undergoing an organizational restructure that will group business units based on functions. Supporting services such as financial and human resources are going to be under the same unit after the restructure. The new organizational structure will take effect on January 1, 2022.

For this benchmarking study, MNP reviewed the cost allocation to Waste & Recycling Services.

Most of the Shared Services costs allocated to service recipients are in an ongoing fashion with some on-demand charges. Overall, the ongoing charges are distributed based on cost drivers such as the number of computer accounts and telephone lines as well as wages and benefits of direct support staff. Besides cost drivers, the service providers also consider some other factors such as a recipient's size and its ability to generate revenue.

The detailed information about cost drivers resides within the business units doing the charges and was not available within the Finance team of the Waste & Recycling Services MNP interviewed.

Utility B Shared Services Overview

Shared Services provided by the centralized department

- Information Technology
- Human Resources
- Fleet Services
- Public Info & Media Relations
- Legal Services
- Supply Services
- Central Management

Shared Services provided by other departments

- Finance Services
- Recreation, Cultural and Facility Management Services

Utility Reviewed: Solid Waste Services

This municipality employs a Shared Services model supported by a centralized department and some other departments, including but not limited to Finance Services and Recreation, Cultural, and Facility Services. The Shared Services are tax funded, and no service costs are allocated to the service recipients except for fleet, facility management, and a small administrative costs for central management. According to the Municipal Act, all municipalities in the province have a legislative obligation to report back to the province on their financial affairs, accounts and transactions in the form of an annual financial return report. In the report, Shared Services costs are allocated to each department using cost drivers to reflect each department's operating costs.

MNP reviewed the cost drivers and allocations to Solid Waste Services based on the annual financial return report. Note that the actual costs are not allocated to Solid Waste Services unless noted otherwise.

Utility B provides solid waste collection services to its residents through Solid Waste Services and third-party contractors. Currently, there are five service zones in the municipality – three of which are collected by contractors, with the other two being collected by the City's Solid Waste Services. All service providers (i.e., Utility B and the contractors) need to succeed in the public bidding process to win the service contracts for certain zones.

The actual operating costs of Solid Waste Services are recovered from a hybrid funding model where costs for garbage collection and disposal, landfill operations, some administrative overhead, debt servicing costs as well as contributions to the capital reserve fund and to the landfill are recovered from user fees. Recycling and waste diversion costs as well as costs from Shared Services are recovered from tax levy.

Utility C Shared Services Overview

- Financial Services
- Corporate Strategic Services
  - Communications
  - Information Services
  - Corporate Strategy & Performance
- Corporate & Protective Services
  - Human Resources
  - Risk Management

Utility Reviewed: Wastewater Services

This municipality has been employing a Shared Services model for over 20 years. The Shared Services (listed to the left of this page) are provided through individual divisions/departments who are also responsible for allocating service costs. Over the years, there have been concerns about the lack of coordination, complexity and fairness of the cost allocation. In 2021, the City initiated a Shared Services Cost Allocation Model Review to develop a consistent, simple, and reasonable cost allocation model with a centralized approach to coordinate the allocation process. A new Shared Services model will take effect in the next budgeting cycle. Therefore, this study focuses on the newly developed Shared Services model unless noted otherwise.

The municipality aims to have a Shared Services model that is simplified, transparent, effective, consistent, and strategic. For simplicity, the City will use only two cost drivers (i.e., FTE and annual operating costs) to allocate the indirect operating costs of the Shared Services providers using the calculation below. Note that there are direct staff supports allocated to service recipients under Shared Services. However, the costs of the direct support staff are regarded as indirect costs and allocated using the same cost drivers as mentioned above for simplicity.

$$Shared\ Services\ Cost\ Allocation = Average\left(\frac{FTE\ by\ area}{Total\ City\ FTE}, \frac{Operating\ Expenditure\ by\ area}{Total\ City\ Operating\ Expenditure}\right) x\ Total\ Shared\ Services\ Operation\ Budget$$

Interestingly, certain City functions have their own internal operating supports. For example, the a city function has its own financial department supporting majority of the financial operation needs. The City is in the process to determine if certain City functions should have reduced cost allocations from Shared Services.

Overall, in designing the new Shared Services model, the City values the system's simplicity and intentionally avoids excessive emphasis on the correlation between the demands and service costs. This approach focuses on meeting City departments' needs, balancing capturing the costs accurately, and gaining administrative efficiency and clarity of communication.

The Utility reviewed is Wastewater in this study.

Utility D Shared Services Overview

Centralized Services:

- Corporate Administration
- Information Technology
- Building Operations
- Corporate Safety
- Corporate Communications
- Financial Oversight
- Human Resources
- Legal and Legislative Services

Utility Reviewed: Solid Waste Services

This participant provides centralized Shared Services to all business activities pursuant to the a Corporate Allocation Policy. These centralized services are listed to the left.

The Local Government Act requires that rates, fees and charges must reflect the full cost of the participants' services to which they relate, including those costs incurred by centralized Shared Services. Overall, the services costs are allocated following four principles, which are efficient, transparent equitable, and consistent.

For Shared Services that have demonstrated and quantified benefits for a certain recipient, the associated costs are allocated directly to that service recipient. Examples of directly allocated Shared Services include pooled fleet vehicles and equipment acquisitions, external legal counsel services, and contracted security services. For the other centralized services, the service costs are allocated to service recipients based on the recipient's prior year operating budget. The operating budget is further broken down to serve as two types of indicators that reflect number of staff supported and the level of business activity. These indicators are used to determine the weights of allocation based on centralized service types.

Operating Budget	Indicator Types	Allocation Consideration	Centralized Services examples
Salaries and benefits	Number of staff	Recipients with higher numbers of staff are allocated a higher proportion of centralized services costs with larger staff complements	Payroll, recruiting services, organizational support, benefit administration, IT computer support, training and head office building operations
Other expenditures	Level of business activity	Recipients with higher levels of business activity are allocated a higher proportion of centralized business support costs	Purchasing, accounts payable, debt management, budgeting, accounts receivable, legal, business applications and corporate planning