

CITY OF EDMONTON

WASTE & DRAINAGE SERVICES

2016 ANNUAL REPORT



Edmonton





TABLE OF CONTENTS

MESSAGE FROM THE MANAGER	1
STRATEGIC FRAMEWORK	2
ORGANIZATIONAL STRUCTURE	4
STRATEGIC DIRECTION	7
2016 HIGHLIGHTS	10
FINANCIAL SUMMARY	15



The LVSO team (L to R): Farid Iskandar, Liam Devereux, Mark Demers, Tim Mikula, Pat Church, Laura Henderson, Myles Curry, Connie Boyce, Chris Cook

LVSO stands for Large Volume Set Out – this was a project that won the City Manager’s Award this year in the innovation category.





MESSAGE FROM THE MANAGER

The Waste and Drainage Services branch has accomplished much in 2016.

Waste and Drainage Services experienced a great period of change and transition, and while this can present numerous challenges, I am proud of how accepting and collaborative our team has been in rising to new opportunities, and how their commitment to delivering quality services for residents has remained their top priority.

Waste Services is continually embracing innovation and technology as a means to increase waste diversion from landfill. In the fall of 2016, we started pilot testing several automated waste collection trucks in various types of Edmonton neighbourhoods. Additionally, we signed a contract with Redemptive Developments, who have partnered with the City of Edmonton, to help us recycle mattresses. Mattresses that are made of wood and metal are recyclable and I am pleased to see a solution in place to ensure they stay out of the landfill. With the City's goal of landfill diversion in mind, our partners at Enerkem are continuing work on their Waste to Biofuels and Chemicals Facility, turning household garbage into biofuels and biochemicals (e.g. methanol and ethanol) and continue to increase their capacity.

Edmonton's sustainable waste system is a source of pride for many residents. With over 50 per cent of residential waste currently being diverted from landfill and an ambitious goal to increase this diversion to 90 per cent, the participation of residents in our waste reduction programs is essential for the sustainability of our system. We interact with residents on a daily basis, addressing concerns and ensuring that their needs for support and information are met, so we can help them do the right thing for our community. One of our most effective new programs is our Large Volume Set Out program, which recently won the City Manager's Award of Excellence for Innovation. Through this program, our social marketing team worked with residents at their homes to help them understand what can be recycled, the average volume of waste for a typical resident, and how they can make setting out their waste easier for themselves and their collector.

In the fall of 2016, we implemented a free new app called WasteWise in direct response to residents' requests for more information about proper waste disposal. Residents can download the app, or find it on our website at edmonton.ca/waste. With the app, residents can search any

item and learn how to properly dispose of it. The public was quick to embrace this new resource, and by the end of 2016, we had 5,395 downloads and 52,328 items searched. This popular tool will continue to be available and will be an important platform for future initiatives.

Drainage Services continues to operate and maintain the City's stormwater and sanitary sewer systems and remains a sound environmental steward of our river. This past year, our branch found significant efficiencies by fully implementing a proven method of high pressure water flushing to keep our sewer systems clean. In addition to using less water, high pressure flushing is more effective at clearing fats, oils, grease and debris than the low pressure flushing method it replaced. This allows crews to conduct more channel/culvert inspections and repair work.

We continue to invest in the rehabilitation of aging sewer and drainage infrastructure throughout the City. In 2016, we invested \$42.5 million in nine neighbourhoods, which included 193 open cut sewer repairs, 253 catch basin lead repairs, 233 service connection repairs, 974 manhole repairs, and 85 kilometres of local sewer relining.

As well as maintaining the sewer system, we are responsible for building new infrastructure to meet the changing demands of our growing city. In 2016, flood mitigation continued to be a priority, receiving \$37.5 million of our \$158 million drainage capital budget. We also proactively assessed several Edmonton neighbourhoods for potential to flood.

Building dry ponds is one of the many drainage solutions that we are looking at city-wide to protect neighbourhoods and reduce the risks of flooding. Recent federal and provincial funding for the Mill Woods area's dry ponds (Malcolm Tweddle, Edith Rogers, Tawa and Ekota) have enabled work to be done more quickly.

Although we continue to live in a period of great change, we will keep providing high quality waste and drainage services that are delivered effectively, efficiently, and safely. Whatever future challenges lie ahead, I'm certain that our highly capable and dedicated team will continue to help make our city the best it can be.

Thanks and stay safe,

Chris Ward
Branch Manager, Waste and Drainage Services



FRAMEWORK

STRATEGIC FRAMEWORK

The Utilities' mission and vision statements provide definition and direction for a future of operational excellence and sustainability.

WASTE SERVICES VISION

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

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

WASTE SERVICES MISSION

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

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



DRAINAGE SERVICES VISION

Excellence and innovation in wastewater, stormwater and biosolids management through customer service, environmental stewardship, and fiscal responsibility.

Drainage Services provides high-quality, reliable service to customers in a safe and sustainable manner. Through well-maintained drainage infrastructure, efficient and up-to-date management systems, innovative system planning, and attention to continuous improvement, Drainage Services contributes to City of Edmonton strategic goals in the areas of sustainable growth, quality of life, prosperity, health, and the environment.

DRAINAGE SERVICES MISSION

We protect public health and the environment by managing wastewater, stormwater and biosolids through environmentally and financially sustainable practices for the City of Edmonton, the North Saskatchewan River system, and our regional partners.

Drainage Services minimizes the negative impacts resulting from the disposal of wastewater, stormwater and biosolids on public health, quality of life, and the environment, including the North Saskatchewan River, the City of Edmonton, and the Capital Region. Drainage Services contributes to Edmonton's vision leading the way in environmental stewardship, innovative design, and cost-efficiency, and by meeting ISO 14001 environmental performance expectations.

VALUES

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

Environmental Stewardship & Public Health

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

Sustainability

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

Excellent Service

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

Engaged and Inspired Employees

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

Collaboration

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



ORGANIZATIONAL STRUCTURE

The City of Edmonton manages two utilities: Waste Services and Drainage Services. The City-owned utilities provide vital services that play an integral role in the day-to-day lives of residents.

Waste Services is a leader in sustainable waste solutions with innovative systems that divert waste from landfill and treat waste as a resource. The City's integrated waste management system closely aligns with three of City Council's ten-year strategic goals: preserve and sustain Edmonton's environment; improve Edmonton's livability; and ensure Edmonton's financial sustainability.

Drainage Services provides sanitary and stormwater drainage services to Edmonton residents by planning, building, operating, and maintaining pipes, tunnels, pump stations, and stormwater management facilities that make up the City's drainage network. It is Drainage Services' mission to protect the environment and public health for residents. The drainage planning, design and construction, and project delivery services support other departments within the City. Drainage Services closely aligns with five of City Council's ten-year strategic goals: preserve and sustain Edmonton's environment; improve Edmonton's livability; diversify Edmonton's economy; ensure Edmonton's financial sustainability; and transform Edmonton's urban form.



The utilities also help promote City Council's overall vision and long-term strategic objectives through the following organizational structure:

UTILITY FUNCTIONS
within the City of Edmonton














“ We’d just like to compliment the waste/recycling team that does pick ups in the Northeast end of Edmonton. We’ve left out some very large amounts of recycling and some cumbersome (not too heavy) garbage bags, and without fail, it is always picked up promptly and efficiently. Great job! ”



DIRECTION

STRATEGIC DIRECTION














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

Branch Strategic Direction	Performance Measures	Actuals			Targets		Corporate Goals
		2014	2015	2016	2016	2017	
GOAL: A HEALTHY COMMUNITY WELL SERVED							
Waste Services responds to Council's vision and our community's changing needs through active engagement and collaboration. We provide a high level of customer satisfaction by delivering timely, seamless and uninterrupted service.	Number of users of Eco Stations and Big Bin Events	249,590	287,989	298,496	297,000	305,000	 Improve Edmonton's Livability  Preserve & Sustain Edmonton's Environment  Diversify Edmonton's Economy
	Number of missed collection stops per 10,000	3	2	2	4	4	
	Percentage of customers satisfied with waste collection services	89%	89%	90%	95%	95%	
	Percentage of households recycling (blue bag program)	92%	93%	91%	95%	95%	
GOAL: ENVIRONMENTAL STEWARDSHIP							
Waste Services is committed to preserving and protecting our environment and biodiversity through continuous improvement, regulatory compliance, and pollution prevention.	Compliance with environmental permits and regulations	100%	100%	100%	100%	100%	 Improve Edmonton's Livability  Preserve & Sustain Edmonton's Environment
	Percentage diversion of residential waste from landfill	51%	52%	52% ¹	65%	75%	
	Tonnes of non-residential waste diverted from landfill	69,000	65,000	55,000 ²	80,000	80,000	
GOAL: ORGANIZATIONAL EFFECTIVENESS							
Waste Services fosters a culture of innovation and a strong sense of purpose through a commitment to people and optimizing systems and resources.	Cost per tonne for curbside collection of refuse and recyclables	\$140	\$143	\$142	\$151	\$153	 Ensure Edmonton's Financial Sustainability  Preserve & Sustain Edmonton's Environment
	Cost per tonne of material processed at the Edmonton Waste Management Centre	\$93	\$99	\$95	\$104	\$107	
GOAL: FISCAL SUSTAINABILITY							
Waste Services strives for rates that are fair, equitable and value-driven.	Annual Net Income	\$0.24 M	\$2.75 M	\$10.50 M	\$0.95 M	\$5.04 M	 Ensure Edmonton's Financial Sustainability  Diversify Edmonton's Economy
	Percentage Rate Increase	5.6%	9.0%	5.7%	5.7%	4.4%	
	Debt to Net Asset Ratio	82%	83%	81%	82%	79%	
	Cash Position	\$3.76 M	\$14.89 M	\$21.71 M	\$0.76 M	\$16.7 M	
GOAL: ORGANIZATIONAL EXCELLENCE							
Waste Services fosters a culture of innovation and a strong sense of purpose, through a commitment to people, and by optimizing systems and resources.	Employee Engagement Survey Score	71%	n/a	68%	65%	n/a	 Ensure Edmonton's Financial Sustainability  Preserve & Sustain Edmonton's Environment
	Percentage turnover per 100 FTEs (excluding retirement)	7%	6%	5.5%	6.0%	6.0%	
	Lost Time Injury Frequency Rate	2.97	4.88	4.36	4.5	4.0	

¹ Residential waste diversion from landfill was lower than the target in 2016 due to the delay in full operation of the Waste to Biofuels and Chemicals Facility. As part of the diversion rate, compost is produced and stored in stockpile until it can be sold. Historically more compost is stockpiled than sold, creating an accumulated inventory. Continuous and focused work is being done to reverse this and eliminate the inventory as well as selling all compost produced. In 2016, 18,400 tonnes were sold and 34,100 tonnes went to stockpile.

² Non-residential waste tonnage diverted from landfill was lower than the target in 2016 due to reduced incoming construction and demolition waste impacted by the slower economic climate.

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

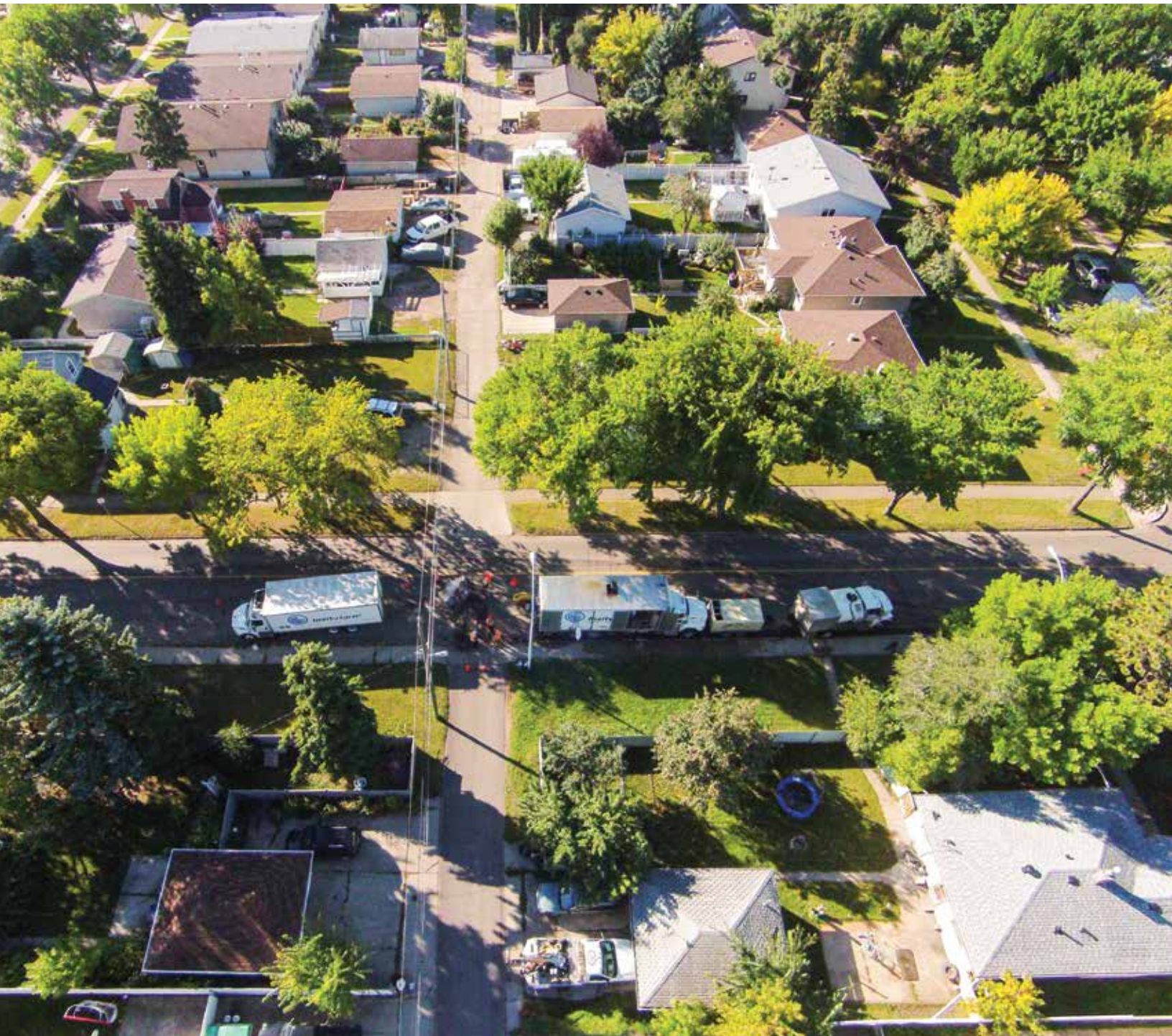
Branch Strategic Direction	Performance Measures	Actuals			Targets		Corporate Goals
		2014	2015	2016	2016	2017	
GOAL: A HEALTHY COMMUNITY WELL SERVED							
Drainage Services responds to Council's vision and our community's changing needs through active engagement and collaboration. We provide a high level of customer satisfaction by delivering timely, seamless and uninterrupted service.	Number of Blocked Mainline Sewers per 100 km	2.3	1.3	1.1	2.5	2.3	 Improve Edmonton's Livability  Preserve & Sustain Edmonton's Environment  Diversify Edmonton's Economy
	Percentage of mature neighbourhoods at 1:100 level of service	6.0%	8.7%	10.2% ¹	12.0%	13%	
GOAL: ENVIRONMENTAL STEWARDSHIP							
Drainage Services is committed to preserving and protecting our environment and biodiversity through continuous improvement, regulatory compliance, and pollution prevention.	Edmonton Watershed Contaminant Reduction Index Score (five-year rolling average)	6.5	6.7	7.0	6.7	6.8	 Improve Edmonton's Livability  Preserve & Sustain Edmonton's Environment
	River Water Quality Index* <small>*2014-2015 data is expected to be published by the Government of Alberta in late 2017</small>	*	*	*	87	87	
	Kg of Total Loading – Total suspended solids (five-year rolling average)	52,000	53,300	51,600	51,000	50,000	
GOAL: SUSTAINABLE INFRASTRUCTURE							
Drainage Services is committed to optimized and integrated asset management through effective planning and sustainable funding.	Percentage of Land Development Applications reviewed on time	46.3%	55.0%	77.0%	65.0%	80.0%	 Transform Edmonton's Urban Form  Ensure Edmonton's Financial Sustainability  Diversify Edmonton's Economy  Preserve & Sustain Edmonton's Environment
	Pipe Capacity Rating* (SAN-STM-CSO: 2/B or Better)	n/a	96%-50%-80%	96%-50%-80%	96%-50%-80%	96%-50%-80%	
	Percentage of infrastructure at or above the minimum level of condition rating	90.8%	90.8%	89%	90.0%	90.0%	
	Percentage capital (as rehabilitation) re-invested compared to total system replacement value	0.35%	0.45%	0.45%	0.58%	0.70%	
GOAL: FISCAL SUSTAINABILITY							
Drainage Services strives for rates that are fair, equitable and provide value.	Annual Net Income	\$50.4M	\$43.3M	\$24.3M ²	\$39.0M	\$44.7M	 Ensure Edmonton's Financial Sustainability  Diversify Edmonton's Economy
	Percentage Rate Increase	7.8%	3.2%	3.1%	3.1%	3.0%	
	Debt to Net Asset Ratio	51.0%	50.0%	52.0%	58.0%	56%	
	Cash Position	\$25.6M	\$17.8M	\$27.8M	\$58.5M	\$46.8M	
GOAL: ORGANIZATIONAL EXCELLENCE							
Drainage Services fosters a culture of innovation and a strong sense of purpose, through a commitment to people, and by optimizing systems and resources.	Employee Engagement Survey Score	68%	n/a	68%	65%	n/a	 Ensure Edmonton's Financial Sustainability  Preserve & Sustain Edmonton's Environment
	Percentage turnover per 100 FTEs (excluding retirement)	6.4%	3.4%	5.5%	6.0%	6.0%	
	Lost Time Injury Frequency Rate	2.3	0.54	1.0 ³	0.5	0.5	

* All 2016 Targets updated based on Budget

¹ Some proposed neighbourhood improvements were delayed or re-prioritized to address some issues identified during project design, public consultation, or due to construction timing constraints

² Includes impact of 17M lagoon liability

³ Fatality



“ We are pleased to report that we had excellent service from the Drainage Operations staff. Drainage technicians arrived within a few hours of our call to the City. All the men worked carefully in a confined space and, considering the dirty job, made very little mess. ”



HIGHLIGHTS



The following achievements contribute to City Council's goals

2016 HIGHLIGHTS

PRESERVE & SUSTAIN EDMONTON'S ENVIRONMENT

1. Anaerobic Digestion Facility Project

2016 marks the beginning of construction on the Anaerobic Digestion Facility. This facility will take up to 48,000 tonnes of organic waste per year and anaerobically digest the waste, generating biogas, which will be converted into renewable electricity and heat to be utilized at the Edmonton Waste Management Centre. The project is on schedule for completion and commissioning by the end of the first quarter, 2018.

2. Edmonton Eco Stations Win Award

The Eco Stations Program received the Gold Excellence Award in the category of Special Waste from the Solid Waste Association of North America (SWANA). This is the first time the City of Edmonton has won this award. Eco Stations provide convenient drop-off facilities for household hazardous waste (such as paint, batteries and electronics) and for large items that are not appropriate for curbside collection. There are four Eco Stations strategically located in each quarter of the city. Since the inception of the program in 1995, more than 2.7 million customers have been served and 16 million litres of household hazardous waste have been diverted from landfill. SWANA's Excellence Awards Program recognizes outstanding solid waste programs and facilities that advance the practice of environmentally and economically sound solid waste management.

3. Management and Beneficial use of Biosolids

Partnerships with the Alberta Capital Region Wastewater Commission and EPCOR continue to demonstrate Waste and Drainage Services' ability to effectively manage biosolids disposal in Edmonton. In 2016, approximately 35,000 dry tonnes of biosolids were beneficially used. Drainage Services partners with Waste Services to utilize biosolids in the production of compost, and transferred about 11,500 dry tonnes to the Edmonton Composting Facility in 2016. This partnership also manages the NutriGold program, which beneficially applied 12,000 dry tonnes, exceeding the target of 10,100 dry tonnes.

In 2016, Drainage Services first full-scale mine reclamation site trial using biosolids commenced, hauling 2,300 dry tonnes out to the mine site with application planned for late spring 2017. These initiatives, along with some additional third party agricultural application, culminated in a grand total of 35,000 dry tonnes of biosolids beneficially used, and a reduction in total inventory levels by almost 10,000 dry tonnes.

4. Waste to Biofuels and Chemicals

In 2016, Enerkem started commercial operation of the Waste to Biofuels and Chemicals Facility. This facility is the first of its kind and is now in ramp up mode. A methanol product was successfully certified and sold to the market, and construction is well underway for the production of ethanol. Feedstock for conversion into biofuels is prepared from residuals from the City of Edmonton's composting, recycling and processing facilities – waste that would otherwise be landfilled.

The Refuse Derived Fuel Dryer project will dry the feedstock to optimize for Enerkem's process. The dryer is expected to be operational by the 3rd quarter of 2017.

5. Grasscycling

Since 2013, Waste Services has used a social marketing approach to change the way Edmontonians deal with grass clippings, which make up almost half of all waste collected in the summer. The approach uses research to identify specific barriers to leaving clippings on the lawn and employs various behavior change tools such as gaining commitments, norm appeals and prompts. The "Go Bagless" grasscycling program was further improved in 2016 and bolstered participation in grasscycling from 58 percent to 63 percent.

6. Reuse Centre

Since its opening in 2007, the Reuse Centre has continued to grow in popularity. In 2016, an average of 24 tonnes of material per month was diverted from the landfill, while allowing organizations and individuals to find affordable items that can be repurposed or reused.

In 2016, The Reuse Centre was awarded the Emerald Award in the Government Institution category. The Emerald Awards recognize outstanding environmental achievements in Alberta.

The Reuse Centre received 308 tonnes of items from onsite, Eco Stations, and Goodwill donations, with a total of 32,167 customer visits. Close to 400 volunteers provided 3,994 hours of volunteer support.

7. Community Waste Reduction

The Master Composter Recycler Program is a successful learn-and-serve style program that offers classroom training to volunteers who in turn reach out to their own communities. In 2016, the program had 33 new graduates, with a total of 838 volunteers trained to date. In total, 181 Master Composter Recyclers volunteered 2,560 hours. As community leaders in waste reduction, they reached 36,647 people through personal conversations and social media, assisting at events, teaching others to compost, and delivering presentations.

8. City Manager's Award

In a collaborative effort with Community Relations' Social Marketing Group, the GIS/Mapping group provided a mapping interface to collect waste setout information. This information was used to directly contact and influence residents who had large quantities of waste set out, helping them develop a waste reduction strategy and reduce their total household volume of waste. With an 80 per cent commitment rate from residents, the program made an impact one household at a time and won the City Manager's Award of Excellence in the Innovation category.

9. Rain Garden in a Box

In 2016 Drainage Services' Low Impact Development group developed a 'how-to' homeowner manual, illustrating the steps to build a residential rain garden. The group held a series of popular workshops on rain garden design, installation, maintenance, and started a mentorship program to provide help to homeowners. Low Impact Development aims to develop an approach to land development (or re-development) that works with nature to manage stormwater as close to its source as possible.

10. Municipal Cooperation

Waste Services separates organic materials from Edmonton's waste stream, and uses the material to create compost. In 2016, Waste Services partnered with Leduc County to utilize this material as a biocover for their landfill. This partnership has benefitted both jurisdictions. Leduc County is able to utilize the material to cover and revegetate their landfill. The City of Edmonton expects to save approximately \$1 million on transportation costs as well as divert organic waste material from landfill. Throughout this project, Leduc County will utilize 50,000 cubic metres (approximately 30,000 tonnes) of compost material.

11. Continued partnership with the University of Alberta

The Regulatory Services group supports and assists the University of Alberta with a number of multi-year projects that focus on reducing impact to the environment and finding better disposal of waste.

In 2016, Regulatory Services started a project that looks at the development and optimization of engineered reactors that can carry out complex energy recovery and safe nutrient recovery from blackwater. The evaluation of blackwater treatment processes will provide pertinent information on how to move forward with this alternative waste disposal method in the Canadian climate context, allowing the City to remain on the forefront of waste disposal methods.

In 2016, Regulatory Services moved into the second year of studies with the University of Alberta that focuses on chloramine dissipation in storm sewers. The goal of the study is to develop a model that will determine chloramine dissipation in the storm sewers under different conditions and identify its effects on aquatic life. Chloramine, which is used to treat the City's drinking water, is considered toxic to aquatic life when it reaches the river via the storm system.





The following achievements contribute to City Council's goal

IMPROVE EDMONTON'S LIVABILITY

1. Flood Mitigation

As part of the Expanded Neighbourhoods Flood Mitigation Program, the Kameyosek Sanitary Improvements Project aims to provide flood risk reduction to the northeast Kameyosek neighbourhood for severe storm events, which statistically occur once per century, also known as 1:100 year storm events. This is in response to basement floodings that occurred in Mill Woods during 2012.

The construction of Ekota Dry Pond and Menisa Storm Relief projects were completed in 2016.

The design of Tawa Dry Pond & Storm Conveyance Improvements was also completed. These projects will reduce the risk of flooding for Ekota, Menisa, Hillview, Tawa, and Weinlos neighbourhoods.

Additionally, engineering assessments geared towards supporting a proactive long-term strategy to provide flood mitigation to at-risk neighbourhoods in Edmonton were completed. Over 160 mature residential neighbourhoods and 33 industrial parks were examined. The preliminary results from the study, which were made available to residents, reveal neighbourhoods in the city most at risk from flooding.

2. Regulatory Compliance

Both Waste and Drainage Services are committed to the highest standard in regulatory compliance.

In 2016 Waste and Drainage Services once again achieved 100 per cent compliance with environmental permits and regulations.

Drainage Services saw 2,258 industrial wastewater surcharge and compliance inspections performed, and over 1,000 water samples collected and tested to meet regulatory reporting requirements, as well as to support drainage environmental planning and watershed planning initiatives.



The following achievements contribute to City Council's goal

TRANSFORM EDMONTON'S URBAN FORM

1. Proactive Management of Trunk Sewers

This initiative began as a requirement to collect better quality data for project-specific work and developed into a plan to globally utilize these technologies to produce ongoing quality data for proactive planning and management of the entire sanitary trunk system.

In 2016, a major step in the proactive management of the trunk sewers was taken, using tools such as CCTV, LiDAR and Multisensor technologies to conduct inspections of the sanitary trunk sewer system. By the end of 2016, ten kilometres of sanitary sewer trunkline was inspected using these technologies, which acted as a jumping-off point for a plan to continue this method in other trunk sewers in the city.

In 2017, contractors will be assigned geographic areas to begin inspecting the sanitary trunk system and delivering the data. Compared to the highly reactive nature of trunk inspections in the past, the data collected in these proactive inspections will significantly help minimize risk of unexpected failure by determining repair and renewal needs in advance.

2. WasteWise App

WasteWise, a free waste sorting app, was launched in October 2016, accompanied by an advertising campaign. By the end of 2016, the app had been downloaded approximately 5,400 times, had received 52,328 item searches, and produced very positive feedback from residents and the media.

The app helps residents learn if specific waste items should be placed in the garbage, recycled or taken to an Eco Station by searching an up-to-date database. It also allows residents to find their collection schedule and sign up for reminders and important seasonal alerts related to waste.

3. Building efficiencies through innovation

Continual work towards increasing operational efficiencies is a top priority for Waste and Drainage Services.

Technological innovations such as using telemetry to move from manual to automated data collection, and process improvements including the use of Google tools over the past two years, enabled an eight percent increase in capacity from 223 to 240 monitoring sites in 2016, using the same operational resources. Automated data collection and improved processes allowed for more frequent data quality control to ensure sewer flow and level data of better quality with less downtime, and decreased safety risk as workers spend less time at manholes manually collecting data. This rainfall, sewer flow and level, sewer H₂S and air pressure data, are used by an increasing number of stakeholder groups to better plan, develop, construct, operate, regulate, analyze and improve Edmonton's sewer and drainage systems.





FINANCIAL SUMMARY

WASTE UTILITY

The 2016 Waste and Drainage Services Annual Report reflects the financial performance and significant accounting policies for the Waste Utility with the following unaudited financial statements, schedules, and notes to the financial statements along with supplemental information:

Statement of Financial Position

Statement of Operations and Accumulated Surplus

Statement of Change in Net Debt

Statement of Cash Flows

Schedule 1: Schedule of Tangible Capital Assets

Schedule 2: Tangible Capital Expenditures Statement (supplemental information)

Schedule 3: Financial Indicators (supplemental information)

These Financial Statements are intended to report on the financial condition as of December 31, 2016 to ensure accountability, demonstrate transparency and assist with both long-term financial and strategic planning. The requirements for municipal financial reporting are standardized across Canada based on the Public Sector Accounting Handbook, which establishes accounting standards for the public sector and provides guidance for financial and other performance information. These financial statements have been prepared in accordance with Public Sector Accounting Standards statements.



2016 FINANCIAL HIGHLIGHTS

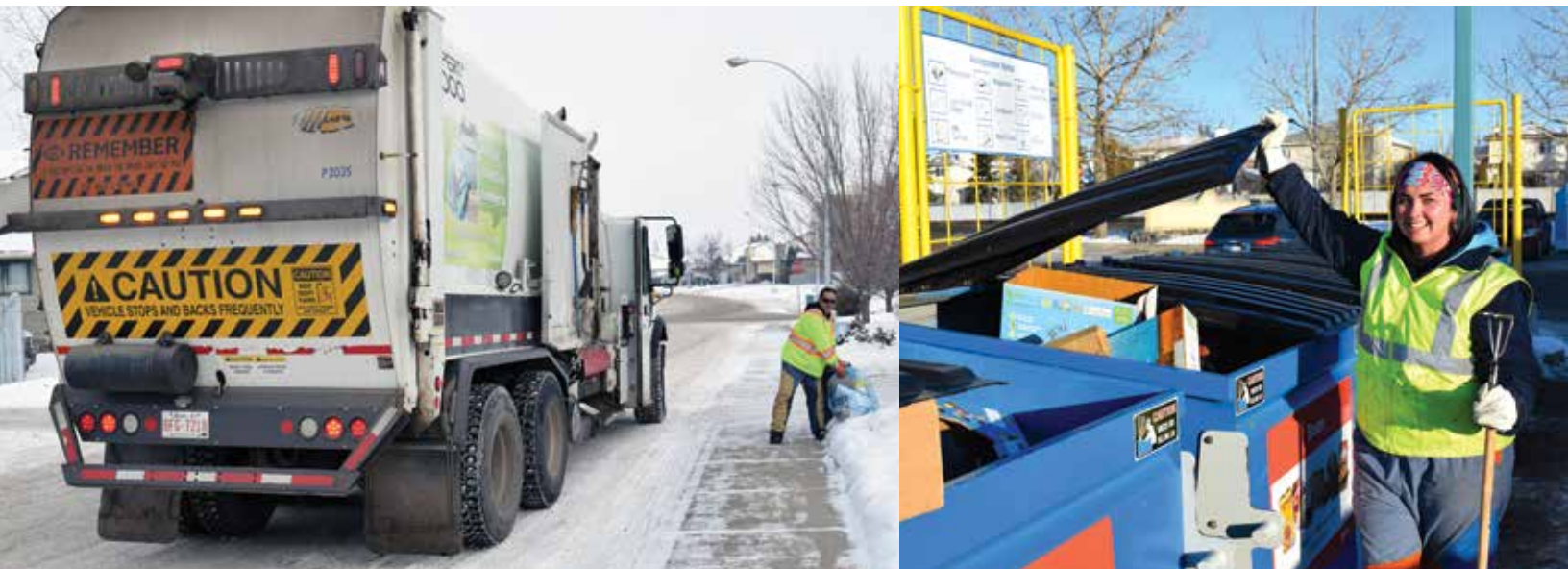
These financial results demonstrate progress towards a sustainable financial position for the Waste Utility through continued efforts to achieve stable and consistent rate increases, meet cash targets and maintain ongoing positive cash balances.

For the third year in a row, the Waste Utility achieved an excess of revenue over expenses (\$10,479). This contributed to increasing the cash position by \$6,820 to \$21,714. Of the total cash position, \$10,463 is restricted for specific (appropriated) purposes. The net debt position was improved by \$4,534, moving the debt to net asset ratio from 83 per cent in 2015 to 81 per cent in 2016.

The following is intended to be read alongside the unaudited financial statements which are included, beginning with the Statement of Financial Position.

STATEMENT OF FINANCIAL POSITION

The Statement of Financial Position provides information on the Waste Utility's ability to finance its activities and meet its obligations. The year ended with a net debt position (financial assets less liabilities) of \$226,232. This is a decrease in net debt of \$4,534 from 2015. Overall, the financial position of the Waste Utility has improved in 2016, as demonstrated by the decrease in net debt and increase in accumulated surplus.



The financial assets have grown by \$9,290 from \$33,547 in 2015 to \$42,837. The primary cause of this increase is cash and cash equivalents, although it is worth noting \$11,251 of this balance is for designated purposes. There is an increase in liabilities of \$4,756 from \$264,313 in 2015 to \$269,069. This increase is mainly attributed to the revaluation of the Post Closure Contingent Liability which nets to \$2,459. Short term liabilities, accounts payable, plus accrued liabilities, increased by \$2,170.

In January 2016, an external party operating at the Edmonton Waste Management Centre declared bankruptcy with an outstanding liability owing to the City of Edmonton. The City of Edmonton as the landlord owns the building, machinery and equipment, which are included in the Waste Utility's financial assets. The trustee in bankruptcy has released any claim to the external party's remaining assets. In 2017, the City of Edmonton intends to auction off the items owned by the City, and, with the consent of Canada Revenue, the remaining assets of the external party.

The Landfill Closure and Post Closure Contingent Liability revaluation increased from the 2015 balance of \$19,988 to \$22,447, as a result of the requirement of additional areas of land to be capped and revegetated, as well as remediation work required on the north slope of the landfill. The anticipated closure date has not changed from previously reported; however, forecasted timelines are subject to change as work progresses on full closure of the landfill, which will facilitate post closure work.

The Waste Utility's accumulated surplus of \$67,780 is an increase of \$10,627 from 2015. Accumulated surplus is composed of the unrestricted accumulated operating deficit, restricted surplus and equity in tangible capital assets. The major contributor to the 2016 increase is the excess of revenue over expense with a small increase for tangible capital assets transfers from other departments. Additional details on the accumulated surplus are available in Note 7 to the Financial Statements.

“ I have been thinking about where I have received really great service this year, and the ECO station on 99 Street comes to mind. I have told many people about the experience that I had there. ”

STATEMENT OF OPERATIONS AND ACCUMULATED SURPLUS

The Statement of Operations and Accumulated Surplus reports on the annual operating revenues, expenses, and the resulting excess or deficit position. The Approved Operating Budget for 2016 forecasted an excess of revenue over expenses before other of \$352. The actual operating results were an excess of \$9,409. This is \$9,057 better than the Approved Operating Budget and \$6,598 better than 2015 results. Other sources of revenue in addition to regulated operations include Government transfers and partner funding of \$1,070, resulting in an excess of revenue over expenses of \$10,479.

Non-regulated programs ended the year with a positive net position of \$339, reversing a trend of net losses since 2012. To address temporary non-regulated program losses and achieve target cash balances, a tax supported short-term loan was approved by Council in the 2015 Operating Budget process. Annual draws were approved to occur for four years only, from 2015 to 2018. The principal and interest (1.5 per cent) are repaid annually starting after the first draw, which occurred in 2015. The annual draws are set to be equal to any non-regulated net deficit plus negative cash balances. During the 2016 calendar year, \$171 was paid for principal and interest, related to the prior year's draw. As a result of the non-regulated net positive position for 2016, a draw on the short-term loan was not required.

The three major categories of revenues for the Waste Utility are rate revenue, program revenue, and government transfers – operating grants. Rate revenue is generated through fees for residential collection and waste disposal. These revenues account for 85.2 per cent of the Waste Utility's revenues. Program revenue comprises 13.7 per cent of revenues and include:

- Non-residential waste collection
- Fees for recycling and disposal services at the Edmonton Waste Management Centre
- Revenue from the sale of recyclable materials and Eco Stations user fees, as well as other partnership revenues and environmental credits

The revenue streams of these activities are highly susceptible to variability. Factors influencing revenue generation which are outside of the Waste Utility's control include:

- Waste customer collection volume
- The extent of private haulers' use of services at the Edmonton Waste Management Centre; and
- Global commodity prices for recyclable materials.

Rate revenue was the largest portion of the increase in revenue, ending the year at \$5,181 higher than forecast in the approved operating budget and with an increase of \$14,431 over 2015. This was a result of the 2016 residential waste service rate increase, as well as growth in the total customer base of 2.8 per cent by December 31, and comprises most of the favourable variance over the approved budget.

Program revenues were \$2,492 higher than budget. The major contributors for this increase are:

- Retention of commercial collection customers
- Increased Eco Station usage; and
- Increased prices on the commodities market for the sale of marketable recyclables.

These revenue increases were offset by the loss of third party lease revenue, lower usage of the Construction and Demolition waste program, and decreased compost sales.

Interest and government transfers account for the balance of total revenues. The government transfer of \$2,000 from the Alberta Innovates Energy and Environment Solutions grant, on the revenue side, is offset by a corresponding operating grant payment to an external third party upon the achievement of project milestones.

Overall, expenses were \$5,227 under the 2016 Approved Operating Budget. Delays in completion of capital projects resulted in savings to personnel, materials, intra-municipal services, utilities, interest and amortization. This included a delay in the commissioning and start up of the Refuse Derived Fuel Dryer from 2016 to 2017. The unbudgeted Landfill Closure and Post Closure contingent liability revaluation increased operating expenditures by a net \$2,459. Other operating expenditures increased over the 2016 Approved Operating Budget including contracted services and equipment costs resulting from a fire at the Edmonton Waste Management Centre. This year, the Edmonton Waste Management Centre had a fire onsite, which resulted in increased contract services and equipment costs of \$1,918 to address this issue.

In summary, the major contributors to the current year costs exceeding prior years included filling positions approved in the 2015 operating budget, revaluation of post-closure contingent liability, and costs associated with the fire at the Edmonton Waste Management Centre.

STATEMENT OF CHANGE IN NET DEBT

The Statement of Change in net debt is a key indicator of the Waste Utility's overall financial health. The net debt balance of \$226,232 indicates liabilities are significantly greater than financial assets. A position of total long-term debt exceeding net book value of non-contributed assets is acceptable within the Utility as demonstrated by the Waste Management Utility Fiscal Policy C558, a financial indicator setting a target for debt to net assets ratio of 50 to 70 per cent. With focus on other financial indicators, such as stable, consistent rate increases and positive net income, the debt to net asset ratio has historically been above 70 per cent.

Net debt for the Waste Utility decreased by \$4,534 in 2016. This contributed to the debt to net asset ratio finishing 2016 at 81 per cent, which is an improvement over the 2015 position which was 83 per cent. Lowering the debt to net asset ratio is recognized in the Waste Utility as a priority, as this is one of the financial indicators set out in the Fiscal Policy. This will be addressed in the long-term financial plan. The debt to net asset ratio indicator is forecast to be within the target range of 50 to 70 per cent in 2026.



STATEMENT OF CASH FLOWS

The Statement of Cash Flows provides the sources and use of cash for operating, capital or financing activities. The cash position has improved by \$6,820 from the prior year. The major contributors to the change in the cash position are the net excess of revenue over expenses of \$10,479 and the increase in accounts receivable of \$2,470 in 2016.

The cash balance of \$21,714 includes \$10,463 that is restricted and can only be used for specific purposes.



CONCLUSION

The Waste Utility continued to improve overall operating performance in 2016 as demonstrated with the excess revenues over expenditures of \$10,479, a positive cash position of \$21,714, and a \$4,534 decrease in the net debt position from \$230,766 to \$226,232.

The Waste Utility will be updating its long term Strategic Plan in 2017. Once finalized and approved, the Strategic Plan will provide the roadmap for critical areas of focus, while balancing the requirement for achievement of financial sustainability.

WASTE UTILITY

STATEMENT OF FINANCIAL POSITION (UNAUDITED)

As at December 31, 2016 (in thousands of dollars)

	2016	2015
FINANCIAL ASSETS		
Cash and temporary investments	\$ 21,714	\$ 14,894
Accounts receivable	21,123	18,653
	42,837	33,547
LIABILITIES		
Accounts payable and accrued liabilities	17,993	16,194
Deferred revenue	63	55
Employee benefit obligations	2,959	2,596
Provision for landfill closure and post-closure costs (Note 5)	22,447	19,988
Long-term debt (Note 4)	225,607	225,480
	269,069	264,313
NET DEBT	(226,232)	(230,766)
NON-FINANCIAL ASSETS		
Tangible capital assets (Note 3)	293,537	287,758
Prepaid expenses	280	17
Inventory of materials and supplies	195	144
	294,012	287,919
ACCUMULATED SURPLUS (Note 7)	\$ 67,780	\$ 57,153

See accompanying notes to financial statements

WASTE UTILITY

STATEMENT OF OPERATIONS AND ACCUMULATED SURPLUS (UNAUDITED)

For the year ended December 31, 2016 (in thousands of dollars)

	Budget	2016	2015
REVENUE			
Rate revenue	\$ 158,296	\$ 163,477	\$ 149,046
Program revenue	23,813	26,305	24,597
Government transfers - operating (Note 6)	5,843	2,000	2,004
Total Revenue	187,952	191,782	175,647
EXPENSES (Note 10)			
Salaries, wages, and employee benefits	47,760	45,889	41,901
Materials, goods, supplies, and utilities	11,502	12,009	11,416
Contracted and other services	77,761	79,596	75,884
Intra-municipal services	27,520	26,918	25,523
Debenture interest and bank charges	10,355	9,682	9,791
Amortization of tangible capital assets	22,364	21,157	19,951
Loss on disposal of tangible capital assets	-	54	51
Biofuel grant	5,843	2,000	2,000
Intra-municipal recoveries	(15,505)	(14,932)	(13,681)
Total Expenses	187,600	182,373	172,836
EXCESS OF REVENUE OVER EXPENSES - BEFORE OTHER	352	9,409	2,811
OTHER			
Developer and customer contributions - capital	-	98	-
Government transfers - capital (Note 6)	-	972	-
Contributed tangible capital assets	-	-	5,320
EXCESS OF REVENUE OVER EXPENSES	352	10,479	8,131
ACCUMULATED SURPLUS, BEGINNING OF YEAR	57,153	57,153	46,353
Tax supported equity (repayment) contribution	-	(147)	1,572
Tangible capital assets transferred from other City Departments	-	295	1,097
ACCUMULATED SURPLUS, END OF YEAR	\$ 57,505	\$ 67,780	\$ 57,153

See accompanying notes to financial statements

WASTE UTILITY

STATEMENT OF CHANGE IN NET DEBT (UNAUDITED)

For the year ended December 31, 2016 (in thousands of dollars)

	Budget	2016	2015
EXCESS OF REVENUES OVER EXPENSES	\$ 352	\$ 10,479	\$ 8,131
Acquisition of tangible capital assets	(40,270)	(26,695)	(22,510)
Contributed tangible capital assets	-	-	(5,320)
Proceeds on disposal of tangible capital assets	-	-	108
Amortization of tangible capital assets	22,364	21,157	19,951
Loss on disposal of tangible capital assets	-	54	51
	(17,906)	(5,484)	(7,720)
Net (increase) decrease in prepaid expenses	-	(263)	42
Net increase in inventory of materials and supplies	-	(51)	(144)
Tax supported equity (repayment) contribution	-	(147)	1,572
	-	(461)	1,470
(INCREASE) DECREASE IN NET DEBT	(43,230)	4,534	1,881
NET DEBT, BEGINNING OF YEAR	(230,766)	(230,766)	(232,647)
NET DEBT, END OF YEAR	\$ (273,996)	\$ (226,232)	\$ (230,766)

WASTE UTILITY

STATEMENT OF CASH FLOWS (UNAUDITED)

For the year ended December 31, 2016 (in thousands of dollars)

	2016	2015
OPERATING		
Excess of revenues over expenses	\$ 10,479	\$ 8,131
Non-cash items included in excess of revenues over expenses:		
Amortization of tangible capital assets	21,157	19,951
Contributed tangible capital assets	-	(5,320)
Loss on disposal of tangible capital assets	54	51
Changes in non-cash items:		
Accounts receivable	(2,470)	1,368
Accounts payable and accrued liabilities	1,799	730
Deferred revenue	8	1
Employee benefit obligations	363	247
Landfill closure and post-closure care	2,459	3,024
Prepaid expenses	(263)	42
Inventory of materials and supplies	(51)	(144)
Cash provided by operating activities	33,535	28,081
CAPITAL		
Acquisition of tangible capital assets	(26,695)	(22,510)
Proceeds on disposal of tangible capital assets	-	108
Cash applied to capital activities	(26,695)	(22,402)
FINANCING		
Debenture borrowings	18,566	20,682
Repayment of long-term debt	(18,439)	(16,795)
Tax supported equity (repayment) contribution	(147)	1,572
Cash provided by financing activities	(20)	5,459
INCREASE IN CASH AND TEMPORARY INVESTMENTS DURING THE YEAR	6,820	11,138
CASH AND TEMPORARY INVESTMENTS, BEGINNING OF YEAR	14,894	3,756
CASH AND TEMPORARY INVESTMENTS, END OF YEAR	\$ 21,714	\$ 14,894
Cash and temporary investments is comprised of:		
Cash	26	446
Due from the City of Edmonton	21,688	14,448
	\$ 21,714	\$ 14,894

WASTE UTILITY

SCHEDULE 1 – SCHEDULE OF TANGIBLE CAPITAL ASSETS (UNAUDITED)

For the Year Ended December 31, 2016 (in thousands of dollars)

	Opening Balance	Additions and Transfers	Disposals	Closing Balance
Cost:				
Processing facilities and equipment	\$ 164,627	\$ 4,473	\$ -	\$ 169,100
Land	16,050	-	-	16,050
Land improvements	40,025	4,444	-	44,469
Buildings	121,096	4,177	-	125,273
Vehicles	41,182	7,276	(151)	48,307
Machinery and equipment	86,974	4,451	-	91,425
	469,954	24,821	(151)	494,624
Assets under construction	15,452	2,168	-	17,620
	485,406	26,989	(151)	512,244
Accumulated Amortization:				
Processing facilities and equipment	115,263	3,943	-	119,206
Land improvements	12,001	1,780	-	13,781
Buildings	26,476	4,589	-	31,065
Vehicles	19,465	5,257	(97)	24,625
Machinery and equipment	24,442	5,588	-	30,030
	197,647	21,157	(97)	218,707
Net Book Value	\$ 287,759	\$ 5,832	\$ (54)	\$ 293,537

WASTE UTILITY

NOTES TO FINANCIAL STATEMENTS (UNAUDITED)

For the year ended December 31, 2016 (in thousands of dollars)

1. GENERAL

The Waste Utility, operated by the City of Edmonton, provides services for the collection, disposal and recycling of residential solid waste services for the city. On September 23, 2014, the amended Waste Management Utility Fiscal Policy C558A was adopted by City Council. The policy includes governance for the Utility over such items as:

- a) Operating in a manner that balances the best possible service at the lowest cost, while employing private sector approaches to rate setting,
- b) Accounting for the cost of service under a full cost accounting approach, and,
- c) Contributing towards achieving the City's Strategic Plan.

2. SIGNIFICANT ACCOUNTING POLICIES

The financial statements of the Waste Utility are prepared by management in accordance with Canadian Public Sector Accounting Standards (PSAS). Significant aspects of the accounting policies adopted by the City are as follows:

a) Basis of accounting

The financial statements are prepared using the accrual basis of accounting. Revenues are accounted for in the period in which they are earned and measurable. Funds from external parties and earnings thereon restricted by agreement or legislation are accounted for as deferred revenue until used for the purpose specified. Expenses are recognized as they are incurred and measurable based upon receipt of goods or services and/or the legal obligation to pay.

b) Due from the City of Edmonton

Amounts due from the City of Edmonton represent cash and temporary investments managed by the City of Edmonton. Interest earned is recorded by the Waste Utility.

c) Inventories

Inventory of materials and supplies is valued at the lower of average cost and replacement cost.

d) Use of estimates

The preparation of financial statements in conformity with the PSAS requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the period. Actual results could differ from those estimates.

Administration has used estimates to determine useful lives of tangible capital assets, landfill closure and post-closure care obligations and employee benefit obligations.

e) Non-financial assets

Non-financial assets are not available to discharge liabilities and are held for use in the provision of services. They have useful lives extending beyond the current year and are not intended for sale in the normal course of operations. Non-financial assets are comprised of tangible capital assets, inventory of materials and supplies, and prepaid expenses.

f) Tangible capital assets

Tangible capital assets are recorded at cost, which includes all amounts that are directly attributable to acquisition, construction, development or betterment of the asset. Interest charges during the construction period are not capitalized.

The cost of routine maintenance and repairs and the replacement of minor parts are charged to expense as incurred. Certain expenditures relating to replacement of components incurred during major maintenance are capitalized and amortized over the estimated benefit period of such expenditures.

Assets under construction are not amortized until available for productive use. Once construction is complete and the asset is placed into service, assets are transferred to the appropriate asset category. The project lifecycle from preliminary design to construction completion may exceed one year.

WASTE UTILITY

NOTES TO FINANCIAL STATEMENTS (UNAUDITED)

For the year ended December 31, 2016 (in thousands of dollars)

g) Amortization

The cost, less residual value of the tangible capital assets, is amortized on a straightline basis over the following estimated useful lives of the assets:

Asset Category	Useful Life	Amortization Rate
Processing Facilities & Equipment	10 to 40 years	2.50% to 10.00%
Land improvements	15 to 25 years	4.00% to 6.67%
Buildings	15 to 75 years	1.33% to 6.67%
Machinery and equipment	6 to 25 years	4.00% to 16.67%
Vehicles	5 to 12 years	8.33% to 20.00%

One half of the annual amortization is charged in the year of acquisition and in the year of disposal.

h) Contributions of tangible capital assets

Tangible capital assets acquired as contributions are recorded at their fair value on the date received. Equivalent amounts are recorded as contributed tangible capital assets on the Statement of Operations and Accumulated Surplus.

i) Landfill closure and post-closure care

Pursuant to the Alberta Environmental Protection and Enhancement Act, the City is required to fund the closure of its landfill site and provide for post-closure care of the facility. Closure and post-closure activities include the final clay cover, landscaping, surface and groundwater monitoring, leachate control, and visual inspection. The requirement is being provided for over the estimated remaining life of the landfill site based usage.

j) Deferred revenue

Funds received from external parties that are restricted for use in the conduct of certain programs, or in the completion of specific work, are deferred until used for the purpose specified.

3. TANGIBLE CAPITAL ASSETS

Tangible capital assets include non-contributed and contributed assets and consist of the following:

Tangible Capital Asset	Cost	Accumulated Amortization	2016 Net Book Value	2015 Net Book Value
Processing Facilities and Equipment	\$ 169,100	\$ 119,206	\$ 49,894	\$ 49,364
Land	16,050	-	16,050	16,050
Land Improvements	44,469	13,781	30,688	28,025
Buildings	125,273	31,065	94,208	94,618
Vehicles	48,307	24,625	23,682	21,717
Machinery and Equipment	91,425	30,030	61,395	62,532
	494,624	218,707	275,917	272,306
Capital Assets Under Construction	17,620	-	17,620	15,452
Total	\$ 512,244	\$ 218,707	\$ 293,537	\$ 287,758
Tangible Capital Assets - Non-Contributed	495,270	215,364	279,906	273,265
Tangible Capital Assets - Contributed	\$ 16,974	\$ 3,343	\$ 13,631	\$ 14,493
	\$ 512,244	\$ 218,707	\$ 293,537	\$ 287,758

For additional information, see the Schedule of Tangible Capital Assets (Schedule 1).

WASTE UTILITY

NOTES TO FINANCIAL STATEMENTS (UNAUDITED)

For the year ended December 31, 2016 (in thousands of dollars)

4. LONG-TERM DEBT

The Waste Utility utilizes debt to finance capital expenditures under principles and limits established within the Waste Management Utility Fiscal Policy. The policy is intended to support the Waste Utility's long-term capital plans and strategies while maintaining long-term financial affordability, flexibility and sustainability. Borrowing has generally been in the form of amortizing debentures administered through the Alberta Capital Finance Authority (ACFA), utilizing the strong debt rating of the Government of Alberta and combined borrowing volumes across Alberta. Interest rates are established at the time of borrowing and remain constant throughout the term of the debenture, thus eliminating the risk associated with fluctuating interest rates.

Existing long term debt matures in 2041. Debenture interest is payable at rates ranging from 1.8 per cent to 6.4 per cent. The average rate is 4.3 per cent for 2016 (2015 – 4.4 per cent) with terms of 10, 15, 20 and 25 years. Payments are made annually or semi-annually.

The current portion of long-term debt amounts to \$19,567 (2015 – \$18,169).

Principal and interest repayments are as follows:

		Principal		Interest		Total
2017	\$	19,567	\$	9,239	\$	28,806
2018		19,002		8,448		27,450
2019		16,333		7,701		24,034
2020		14,792		7,051		21,843
2021		14,471		6,429		20,900
Thereafter		141,442		35,268		176,710
Total	\$	225,607	\$	74,136	\$	299,743

5. LANDFILL CLOSURE AND POST-CLOSURE LIABILITY

Under provincial legislation, the City has a liability for closure and post-closure care costs for its landfill sites. The Clover Bar landfill site reached full capacity and was closed August 2009. The period for post-closure care is 25 years. The costs to maintain a closed solid waste landfill site are based on estimated future expenses in current dollars by applying a discount rate at the City's average long-term borrowing rate of 3.8 per cent (2015 – 4.0 per cent) and inflation rate of 3.0 per cent (2015 – 3.0 per cent). An amount of \$ 22,447 (2015 – \$19,988) has been accrued. The liability was increased by \$4,588 (2015 – \$4,361) to reflect revised post-closure care cost estimates, offset by \$2,129 (2015 – \$1,337) which was expensed in the year to reflect cash outlays for post-closure care.

Landfill closure and post-closure care requirements have been defined in accordance with industry standards and include final covering and landscaping of the landfill, pumping of groundwater and leachates from the site, ongoing environmental monitoring, site inspection and maintenance. The reported liability is based on estimates and assumptions with respect to events using the best information available to management. Future events, such as changes to regulatory requirements, may result in significant changes to the estimated total expenses and will be recognized prospectively, as a change in estimate, when applicable.

WASTE UTILITY

NOTES TO FINANCIAL STATEMENTS (UNAUDITED)

For the year ended December 31, 2016 (in thousands of dollars)

6. GOVERNMENT TRANSFERS

	2016	2015
Operating transfers:		
Federal	\$ -	\$ 4
Provincial	2,000	2,000
Capital transfers:		
Provincial	972	-
	\$ 2,972	\$ 2,004

The provincial government approved operating funding of \$14,500 and \$10,000 in 2007 and 2010 respectively, through the Alberta Innovates - Energy and Environment Solutions grant, for a solid waste gasification demonstration facility. The Waste Utility administers the grant on behalf of Alberta Innovates. The grant is received for

future disbursement to a third party upon the completion of identified project milestones. In 2016, \$2,000 was recognized as revenue (2015 - \$2,000) and \$2,000 was paid out to a third party as the Biofuel grant.

The Climate Change and Emissions Management Corporation (CCEMC) has provided \$972 of capital funding in 2016 (2015 - \$0) towards the implementation of High Solids Anaerobic Digestion Technology at the Edmonton Waste Management Centre, in partnership with the University of Alberta. This facility will generate renewable energy from biogas produced through organic processing of municipal solid wastes, thereby reducing greenhouse gas emissions and enhancing waste diversion. The CCEMC has committed to provide a total of \$10,000 grant funds by the completion of the project.

7. ACCUMULATED SURPLUS

The Waste Utility's total accumulated surplus consists of its accumulated operating position (unrestricted), advances for construction and equity in tangible capital assets as summarized below. Total accumulated surplus for the Waste Utility has also been disclosed as reflected in the audited City of Edmonton Consolidated Financial Statements. Differences are due to the elimination of intercompany transactions between the Waste Utility and other City departments as required for consolidation purposes in the City of Edmonton Consolidated Financial Statements.

	2016	2015
Accumulated		
operating deficit	\$ (1,914)	\$ (7,918)
Tax supported equity loan	1,425	1,572
Advances for construction	339	1,220
Equity in tangible		
capital assets	67,930	62,279
Total accumulated surplus	\$ 67,780	\$ 57,153

Advances for construction represents debt proceeds received in advance of related capital expenses.

WASTE UTILITY

NOTES TO FINANCIAL STATEMENTS (UNAUDITED)

For the year ended December 31, 2016 (in thousands of dollars)

8. EQUITY IN TANGIBLE CAPITAL ASSETS

	2016	2015
Tangible capital assets (Schedule 1)	\$ 512,244	\$ 485,406
Accumulated amortization (Schedule 1)	(218,707)	(197,647)
Long-term debt (Note 4)	(225,607)	(225,480)
	\$ 67,930	\$ 62,279

9. EXPENSE BY FUNCTION

	2016	2015
Sustainable Waste Processing Services	\$ 122,849	\$ 106,267
Collection	59,524	66,569
	\$ 182,373	\$ 172,836

10. COMPARATIVE INFORMATION

Certain comparative information has been reclassified to conform with the financial statement presentation adopted for the current year.

WASTE UTILITY

SUPPLEMENTAL INFORMATION – SCHEDULE 2: TANGIBLE CAPITAL EXPENDITURES STATEMENT (UNAUDITED)

For the year ended December 31, 2016 (in thousand of dollars)

	2015–2018 Approved Budget Nov 29, 2016	2016 Approved Budget Nov 29, 2016 (Note 1)	2016 Actuals
Collection Services Facilities			
Eco Station Facilities	\$ 6,829	\$ 685	\$ 216
Kennedale Facility	150	48	44
	6,978	733	260
Sustainable Waste Processing Facilities			
Anaerobic Digestion Facility	36,799	11,424	9,260
Integrated Processing and Transfer Facility Expansion	3,477	250	16
Refuse Derived Fuel Dryer	9,950	4,500	1,629
Cure Site Land Use and Development	9,000	250	24
Landfill Capping and Revegetation	5,816	2,088	1,581
Material Recovery Facility Renewal (MRF)	2,053	450	199
Arterial Roadway Assessment (ARA)	-	-	-
Equipment Storage and Maintenance Facility	607	126	126
	67,702	19,088	12,834
Collection Services and Sustainable Waste Processing Infrastructure			
EWMC Infrastructure	29,407	7,670	5,474
Collection Facilities and Infrastructure	3,325	195	32
Eco Station Facilities Rehabilitation	757	-	-
	33,489	7,865	5,506
Vehicles and Equipment			
Equipment and Vehicles	28,323	11,284	7,324
Waste Containers	9,972	1,300	1,016
	38,295	12,584	8,340
Total Capital Expenditures	\$ 146,464	\$ 40,270	\$ 26,939
Capital Expenditures by Financing			
Non-Contributed Financing			
Self-Liquidating Debt	\$ 107,551	\$ 30,777	\$ 19,447
Retained Earnings	28,070	8,226	6,422
Subtotal Non-Contributed Financing	\$ 135,621	\$ 39,003	\$ 25,869
Contributed Financing	10,843	1,267	1,070
Total Capital Expenditures	\$ 146,464	\$ 40,270	\$ 26,939

Note 1: 2016 Approved Budget includes 2015 Carryforwards

WASTE UTILITY

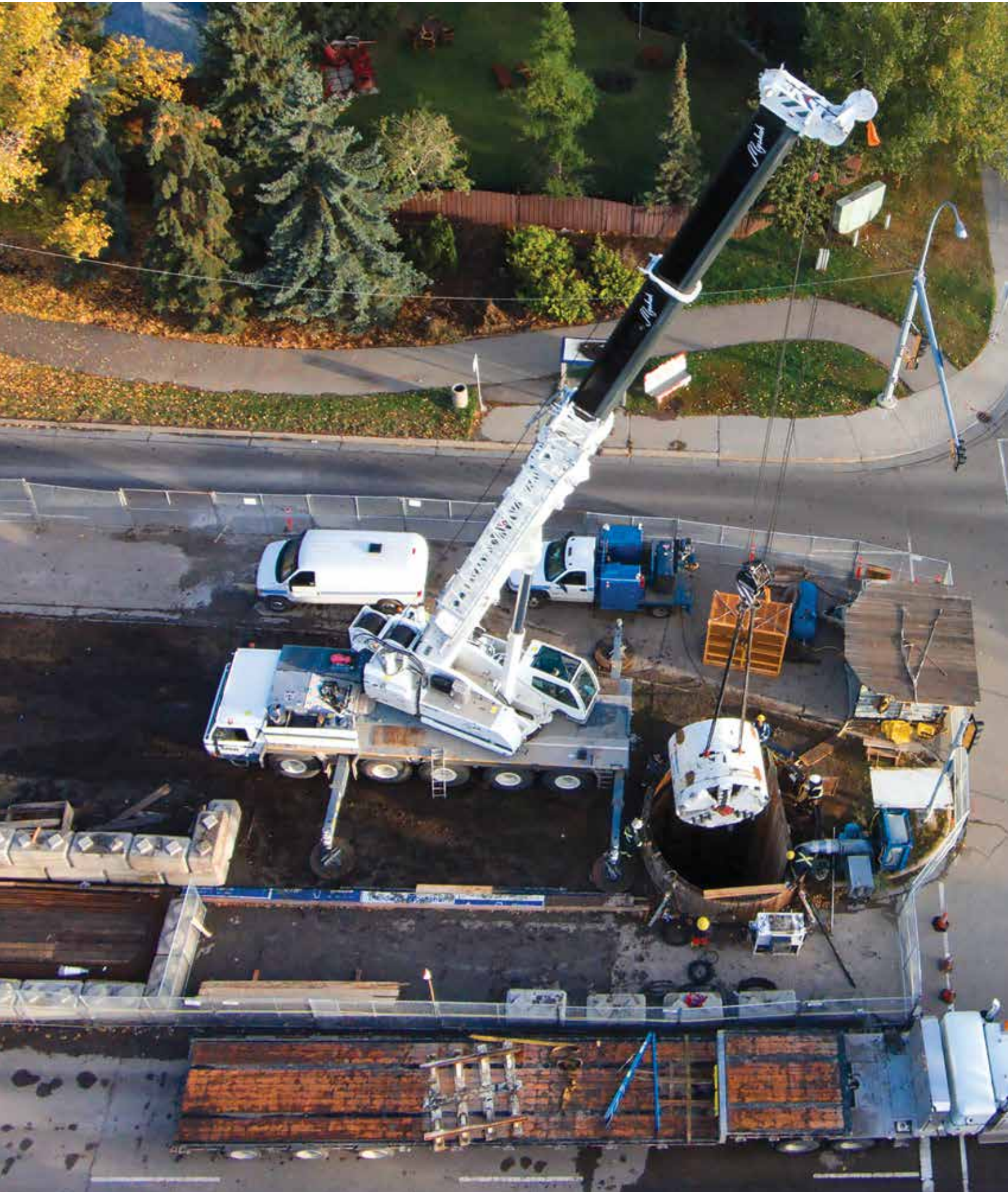
SUPPLEMENTAL INFORMATION – SCHEDULE 3: FINANCIAL INDICATORS (UNAUDITED)

For the year ended December 31, 2016 (in thousand of dollars)

	2014 Actual	2015 Actual	2016 Approved Budget	2016 Actual	2017 Approved Budget
1. Rate Sufficient to Meet Expenditures and Cash Flow					
Net Income (loss) ¹	\$ 243	\$ 2,746	\$ 954	\$ 10,500	\$ 5,048
Target: Positive Net Income	Yes	Yes	Yes	Yes	Yes
2. Cash Position					
Pay As You Go Requirement ²	\$ 3,912	\$ 5,354	\$ 5,081	\$ 5,081	\$ 8,801
Risk Allowance	-		\$ 2,100	\$ 2,100	\$ 2,175
Target Cash Position	\$ 3,912	\$ 5,354	\$ 7,181	\$ 7,181	\$ 10,976
Actual Cash Balance	\$ 3,756	\$ 14,894	\$ 760	\$ 21,714	\$ 16,963
<i>Actual Cash ≥ Target</i>	No	Yes	No	Yes	Yes
3 Residential Customer Rate Impacts					
<u>Single Unit</u>					
Monthly Billing Increase	\$ 1.98	\$ 3.35	\$ 2.31	\$ 2.31	\$ 1.90
<i>Impact of Customer Rate</i>	5.6 %	9.0 %	5.7 %	5.7 %	4.4 %
Monthly Unit Rate	\$ 37.34	\$ 40.69	\$ 43.00	\$ 43.00	\$ 44.90
<u>Multi Unit</u>					
Monthly Billing Increase	\$ 1.29	\$ 2.18	\$ 1.50	\$ 1.50	\$ 1.23
<i>Impact of Customer Rate</i>	5.6 %	9.0 %	5.7 %	5.7 %	4.4 %
Monthly Unit Rate	\$ 24.27	\$ 26.45	\$ 27.95	\$ 27.95	\$ 29.19
Target: Stable, consistent rate increases	No	No	No	No	No
4 Financing of Capital Investments					
Debt to Net Assets Ratio	82%	83%	82%	81%	79%
Target: Between 50% – 70%; balancing cash availability, construction inflation, and interest	No	No	No	No	No

Change in financial indicators from prior years in accordance with Waste Utility Fiscal Policy C558A, which was adopted by City Council on September 23, 2014.

- 1 Net income excludes operating expenses related to contributed assets as they are not funded by the Utility (rates).
- 2 Pay As You Go represents the portion of next year's capital funded by operating cash flow.





FINANCIAL SUMMARY

DRAINAGE UTILITY

The 2016 Waste and Drainage Services Annual Report reflects the financial performance and significant accounting policies for Drainage Services with the following unaudited financial statements, schedules and notes to the financial statements along with supplemental information:

Statement of Financial Position

Statement of Operations and Accumulated Surplus

Statement of Change in Net Debt

Statement of Cash Flows

Schedule 1: Schedule of Tangible Capital Assets

Schedule 2: Tangible Capital Expenditure Statement (supplemental information)

Schedule 3: Financial Indicators (supplemental information)

These Financial Statements are intended to report on the financial condition as of December 31, 2016 to demonstrate accountability, ensure transparency and assist with both long-term financial and strategic planning. The requirements for municipal financial reporting are standardized across Canada based on the Public Sector Accounting Handbook, establishing accounting standards for the public sector and providing guidance for financial and other performance information. These financial statements have been prepared in accordance with Public Sector Accounting Standards.



2016 FINANCIAL HIGHLIGHTS

The Drainage Utility is focused on providing rate stability while ensuring sufficient funds to meet ongoing obligations in consideration of the Utility's mission, values and strategic initiatives. The Drainage Utility is in the second year of the four year 2015–2018 Approved Capital Budget and the first year of the three year 2016–2018 Approved Operating Budget.

The Drainage Utility had a total of \$166.2 million in capital expenditure in 2016, which is the most spent in a given year. Investment in the capital program is primarily in the areas of Flood Mitigation, Neighbourhood Renewal and Systems Rehabilitation. These investments reflect the growing need to address system demands to ensure current and future customer requirements are met.

The financial indicators for the Drainage Utility are stable rate increases while ensuring long-term financial sustainability. The financial challenges moving forward are to manage the substantial growth of the Flood Mitigation and Environmental Quality Enhancement programs, which will see a significant annual increase in capital work over the next ten years, while managing potential volatility with its rate setting.

The following is intended to be read alongside the unaudited financial statements, which are included, beginning with the Statement of Financial Position.

STATEMENT OF FINANCIAL POSITION

The Statement of Financial Position provides information on the Drainage Utility's ability to finance its activities and to meet its obligations and commitments. This statement provides the Financial Assets, Liabilities, Non-Financial Assets and Accumulated Surplus of the Drainage Utility. The year ended with a net debt position (financial assets less liabilities) of \$484,999, an increase in net debt of \$78,202 from the previous year.

The Drainage Utility's financial assets position increased to \$190,123 from \$177,487, an overall increase of \$12,636 as compared to 2015. The primary components of this change are the increase in cash and cash equivalents of \$17,720 and a reduction of \$5,797 in Promissory note receivable, which is due from EPCOR, reflecting the current year principal portion of debt related to the financing of Gold Bar assets.

Cash and temporary investments increased to \$103,332 from \$85,612, an increase of \$17,720 as noted in the Statement of Financial Position. A portion of the cash and cash equivalents includes the Sanitary Servicing Strategy Fund (SSSF) of \$65,859, which is an increase of \$4,930 from the prior year due to new developer contributions less funding for 2016 capital work. These restricted funds consist of contributions from the Drainage Utility, developers and homebuilders with the objective of providing sanitary servicing to new development areas.

The Drainage Utility's total liabilities at the end of 2016 were \$675,122, an increase of \$90,838 from the previous year. The overall change is composed of accounts payable and accrued liabilities, deferred revenues and long-term debt.

Accounts payable and accrued liabilities increased by \$23,491 from 2015 mainly due to a new liability for remediation of contaminated sites totalling \$17,245 related to a wastewater treatment plant and lagoon.

Deferred revenues of \$5,383 have decreased by \$2,980 from the prior year, reflecting the recognition of externally restricted grant monies received in 2015 from the Alberta Community Resilience Program. The grant funding was approved for dry ponds and has been allocated to these projects in 2016 as work has been performed.

The Drainage Utility has outstanding long-term debt of \$619,832, which includes \$63,832 owing from EPCOR which is secured by a promissory note receivable. Refer to Note 5 of the financial statements for further detail. During 2016, the Drainage Utility issued \$96,960 in new debt and made principal repayments of \$26,875 on existing debt, resulting in a net increase of \$70,085 in long-term debt from 2015. New debt issued by the Drainage Utility financed capital programs such as Drainage Neighbourhood Renewal, Flood Mitigation Programs and the Downtown Stormwater Drainage Project. This investment in new capital supports Drainage Utility's long-term capital plans and strategies.

The net book value of tangible capital assets was \$3,293,357, comprised of \$2,212,883 of contributed assets and \$1,080,474 of non-contributed assets. Of the \$312,469 net increase, contributed assets are up \$194,702 and non-contributed assets increased by \$117,767.

Contributed capital relates to assets which are funded by external parties. The growth in contributed capital assets requires the Drainage Utility to plan and provide for the maintenance and future replacement of these assets, which are the responsibility of the Drainage Utility.

The Drainage Utility's capital assets are constructed or purchased to provide on-going service delivery to our ratepayers and support the collection and transmission of wastewater and stormwater from residential and non-residential customers.

During 2016, \$43,549 was invested in the City's Drainage Neighbourhood Renewal Program, \$38,161 in Drainage System Rehabilitation and \$29,906 million in Drainage Flood Mitigation Program. Capital investments in these three areas totaled \$111,616 and 68 per cent of the Drainage Utility's capital spend. Refer to Schedule 2 for more details.



STATEMENT OF OPERATIONS AND ACCUMULATED SURPLUS

The Statement of Operations and Accumulated Surplus reports the annual operating revenues, expenses and other external contributions as well as the resulting net surplus or deficit position.

Shortfall of revenues over expenses was (\$5,341) for the current year, which represents a decrease of \$24,938 when compared to 2015, which was in a positive position. The change from the prior year is related to an increase of \$5,838 in revenue and an increase of \$30,777 in expenses.

Revenues from Drainage Utility's operations were \$175,652 in 2016. Rate Revenues of \$165,096 (94 per cent) were earned from utility rates charged to residential and non-residential customers, with the remainder generated from non-rate revenue (e.g. revenue from the regulatory services, service connections, lot grading, external construction projects, regional biosolids disposal and investment earnings). Revenues were higher year-over-year primarily due to increased utility rate revenue from higher customer counts and greater usage.

Total expenses of \$180,993 were higher when compared to 2015 mainly due to a requirement to recognize a contaminated site liability of \$17,245. In addition to the liability, there were less capital recoveries than anticipated, and increased amortization costs as a result of higher capitalization of assets. Savings were realized on personnel costs as a result of vacant positions and lower overtime costs.



“ Super happy with the great people sent out for this job. The guys were really personable, very careful about cleaning up after they did very professional job.”

STATEMENT OF CHANGE IN NET DEBT

The Statement of Change in Net Debt is a key indicator of the financial health of the Drainage Utility. A net debt balance indicates liabilities are greater than the liquid financial assets available (cash and cash equivalents). The net debt position is not the sole indicator of financial health as the Drainage Utility is guided by Drainage Services Utility Fiscal Policy C304D, which provides guidance on debt financing parameters to ensure the long-term financial goals of the Drainage Utility are met.

Net Debt increased by \$78,202 to \$484,999 in 2016 from \$406,797 in 2015. This is primarily an increase in excess revenues over expenses and increases in the acquisition of contributed and non-contributed tangible capital assets. The net debt to assets ratio increased from 50 per cent in 2015 to 52 per cent in 2016, which is within the targeted requirement of 50 per cent to 70 per cent as per the Utility Fiscal Policy. This was a result of an increase in non-contributed tangible capital asset financing through long-term debt in the current year.



STATEMENT OF CASH FLOWS

The Statement of Cash Flows summarizes the sources and use of cash for the year into three activities – operating, capital, and financing. The cash position for the Drainage Utility increased by \$17,720 in 2016. During the year, cash was increased by \$104,073 from operating activities plus \$70,085 from net borrowing less \$165,200 used in the acquisition of tangible capital assets.

CONCLUSION

The Drainage Utility continues to operate with a focus on providing stable and consistent rate increases with overall long-term financial sustainability. The 2015–2024 Drainage Services Master Plan will guide this Utility for the next ten years. The focus will be to provide effective and efficient wastewater and stormwater drainage systems that will protect the environment and public health of our residents. The Drainage Services Master Plan supports the City's vision and contributes to a growing and vibrant City.

DRAINAGE UTILITY

STATEMENT OF FINANCIAL POSITION (UNAUDITED)

As at December 31, 2016 (in thousands of dollars)

	2016	2015 (Restated)
FINANCIAL ASSETS		
Cash and temporary investments	\$ 103,332	\$ 85,612
Accounts receivable	22,959	22,246
Promissory note receivable (Note 5)	63,832	69,629
	190,123	177,487
LIABILITIES		
Accounts payable and accrued liabilities (Note 4)	42,366	18,875
Deposits	2,667	2,431
Deferred revenue	5,383	8,363
Employee benefit obligations	4,874	4,868
Long-term debt (Note 5)	619,832	549,747
	675,122	584,284
NET DEBT	(484,999)	(406,797)
NON-FINANCIAL ASSETS		
Tangible capital assets (Note 3)	3,293,357	2,980,888
Prepaid expenses	268	149
Inventory of materials and supplies	1,569	1,487
	3,295,194	2,982,524
ACCUMULATED SURPLUS (Note 7)	\$ 2,810,195	\$ 2,575,727

See accompanying notes to financial statements

DRAINAGE UTILITY

STATEMENT OF OPERATIONS AND ACCUMULATED SURPLUS (UNAUDITED)

For the year ended December 31, 2016 (in thousands of dollars)

	Budget	2016	2015 (Restated)
REVENUES			
Rate revenue	\$ 162,223	\$ 165,096	\$ 158,606
Program revenue	10,668	10,556	11,202
Gain on disposal of tangible capital assets	-	-	5
Total Revenues	172,891	175,652	169,813
EXPENSES (Note 9)			
Salaries, wages and employee benefits	64,642	62,284	66,464
Materials, goods, supplies and utilities	41,308	11,058	22,199
Contracted and other services	90,000	79,666	109,480
Intra-municipal services	46,366	45,096	27,768
Local access fee	8,762	8,908	8,666
Debenture interest	21,198	19,872	18,799
Amortization of tangible capital assets	54,083	56,536	47,562
Intra-municipal recoveries	(162,885)	(102,427)	(150,722)
Total Expenses	163,474	180,993	150,216
EXCESS (SHORTFALL) OF REVENUES OVER EXPENSES - BEFORE OTHER			
	9,417	(5,341)	19,597
OTHER			
Government transfers - capital (Note 6)	6,485	2,954	404
Developer and customer contributions - capital	16,504	24,288	32,985
Contributed tangible capital assets	70,000	170,979	190,952
EXCESS OF REVENUES OVER EXPENSES	102,406	192,880	243,938
ACCUMULATED SURPLUS, BEGINNING OF YEAR			
	2,575,727	2,575,727	2,296,607
Tangible capital assets transferred from other City Departments	-	32,826	27,683
Net equity transfer from tax-supported operations	16,587	9,554	6,863
Local improvements	-	(792)	636
ACCUMULATED SURPLUS, END OF YEAR	\$ 2,694,720	\$ 2,810,195	\$ 2,575,727

See accompanying notes to financial statements

DRAINAGE UTILITY

STATEMENT OF CHANGE IN NET DEBT (UNAUDITED)

For the year ended December 31, 2016 (in thousands of dollars)

	Budget	2016	2015 (Restated)
EXCESS OF REVENUE OVER EXPENSES	\$ 102,406	\$ 192,880	\$ 243,938
Acquisition of tangible capital assets	(223,203)	(165,200)	(150,857)
Contributed tangible capital assets	(70,000)	(170,979)	(190,952)
Proceeds on disposal of tangible capital assets	-	-	2,909
Amortization of tangible capital assets	54,083	56,536	47,562
Net equity transfer from tax-supported operations	16,587	9,554	6,863
Local improvements	-	(792)	636
Gain on disposal of capital assets	-	-	(5)
	(222,533)	(270,881)	(283,844)
Net (increase) decrease in prepaid expenses	-	(119)	3
Net equity transfer from tax-supported operations	-	-	-
	-	(201)	100
INCREASE IN NET DEBT	(120,127)	(78,202)	(39,806)
NET DEBT, BEGINNING OF YEAR	(406,797)	(406,797)	(366,991)
NET DEBT, END OF YEAR	\$ (526,924)	\$ (484,999)	\$ (406,797)

DRAINAGE UTILITY

STATEMENT OF CASH FLOWS (UNAUDITED)

For the year ended December 31, 2016 (in thousands of dollars)

	2016	2015 (Restated)
OPERATING		
Excess of revenue over expenses	\$ 192,880	\$ 243,938
Non-cash items included in excess of revenues over expenses:		
Amortization of tangible capital assets	56,536	47,562
Contributed tangible capital assets	(170,979)	(190,952)
Gain on disposal of tangible capital assets	-	(5)
Changes in non-cash items:		
Accounts receivable	(713)	1,745
Promissory note receivable	5,797	5,884
Accounts payable and accrued liabilities	23,491	(6,401)
Deposits	236	207
Deferred revenue	(2,980)	7,793
Employee benefit obligations	6	77
Prepaid expenses	(119)	3
Inventory of materials and supplies	(82)	97
Cash provided by operating activities	104,073	109,948
CAPITAL		
Acquisition of tangible capital assets	(165,200)	(150,857)
Proceeds on disposal of tangible capital assets	-	2,909
Cash applied to capital activities	(165,200)	(147,948)
FINANCING		
Debenture borrowings	96,960	51,915
Repayment of long-term debt	(26,875)	(25,055)
Net equity transfer from tax-supported operations	9,554	6,863
Local improvements	(792)	636
Cash provided by financing activities	78,847	34,359
INCREASE (DECREASE) IN CASH AND TEMPORARY INVESTMENTS DURING THE YEAR	17,720	(3,641)
CASH AND TEMPORARY INVESTMENTS, BEGINNING OF YEAR	85,612	89,253
CASH AND TEMPORARY INVESTMENTS, END OF YEAR	103,332	85,612
Cash and temporary investments is comprised of:		
Cash	2	3
Due from the City of Edmonton	103,330	85,609
	\$ 103,332	\$ 85,612

DRAINAGE UTILITY

SCHEDULE 1 – SCHEDULE OF TANGIBLE CAPITAL ASSETS (UNAUDITED)

For the Year Ended December 31, 2016 (in thousands of dollars)

	Opening Balance	Additions and Transfers	Closing Balance
Cost			
Collection and Transmission infrastructure	\$ 3,215,195	\$ 431,548	\$ 3,646,743
Pump/Lift stations	72,902	9,977	82,879
Wastewater treatment infrastructure	5,691	-	5,691
Land	111,917	10,361	122,278
Office buildings	3,826	1,844	5,670
Laboratories/Research and Development Centers	1,780	-	1,780
Warehouses	19,507	15,049	34,556
Office furniture and equipment	175	4,626	4,801
Vehicles	8,911	5,433	14,344
Computer equipment	13,503	4,378	17,881
Construction equipment	39,739	17,038	56,777
	3,493,146	500,254	3,993,400
Assets under construction	229,170	(131,249)	97,921
	3,722,316	369,005	4,091,321
Accumulated Amortization:			
Collection and Transmission infrastructure	669,208	46,030	715,238
Pump/Lift stations	17,585	1,770	19,355
Wastewater treatment infrastructure	3,018	129	3,147
Land	-	-	-
Office buildings	1,630	112	1,742
Laboratories/Research and Development Centers	557	41	598
Warehouses	13,677	3,614	17,291
Office furniture and equipment	155	361	516
Vehicles	3,239	1,213	4,452
Computer equipment	12,918	795	13,713
Construction equipment	19,441	2,471	21,912
	741,428	56,536	797,964
Net Book Value	\$ 2,980,888	\$ 312,469	\$ 3,293,357

DRAINAGE UTILITY

NOTES TO FINANCIAL STATEMENTS (UNAUDITED)

For the year ended December 31, 2016 (in thousands of dollars)

1. GENERAL

The Drainage Utility, operated by the City of Edmonton (the City), provides utility services in wastewater, stormwater and biosolids management through environmentally and financially sustainable practices for the City. The Utility is governed by the Drainage Services Utility Fiscal Policy C304D, which was adopted by City Council on September 23, 2014 and includes such items as:

- a) Operating in a manner that balances the best possible service at the lowest cost, while employing private sector approaches to rate setting,
- b) Accounting for the cost of service under a full cost accounting approach,
- c) The Drainage Utility will be subject to a Local Access Fee, similar to private utilities for the use of public right of ways and in lieu of property taxes. The local access fee will be up to 8 per cent of qualifying revenues, as determined by City Council and,
- d) contributing towards achieving the City's strategic plan.

2. SIGNIFICANT ACCOUNTING POLICIES

The financial statements of the Drainage Utility are prepared by management in accordance with Canadian Public Sector Accounting Standards (PSAS). Significant aspects of the accounting policies adopted by the City are as follows:

a) Basis of accounting

The financial statements are prepared using the accrual basis of accounting. Revenues are accounted for in the period in which they are earned and measurable. Funds from external parties and earnings thereon restricted by agreement or legislation are accounted for as deferred revenue until used for the purpose specified. Expenses are recognized as they are incurred and measurable based upon receipt of goods or services and/or the legal obligation to pay.

b) Due from the City of Edmonton

Amounts due from the City of Edmonton represent cash and temporary investments managed by the City of Edmonton. Interest earned is recorded by the Drainage Utility.

c) Promissory note receivable

Amounts that are recoverable from EPCOR with respect to outstanding debentures pursuant to the transfer of the Gold Bar Wastewater Treatment Facility in 2009. The receivable is recorded at a value that equals the offsetting portion of the un-matured long-term debt.

d) Inventory of materials and supplies

Inventory of materials and supplies is valued at the lower of average cost and replacement cost.

e) Use of estimates

The preparation of financial statements in conformity with the PSAS requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the period. Actual results could differ from those estimates.

Administration has used estimates to determine useful lives of tangible capital assets, employee benefit obligations and contaminated sites remediation.

f) Non-financial assets

Non-financial assets are not available to discharge liabilities and are held for use in the provision of services. They have useful lives extending beyond the current year and are not intended for sale in the normal course of operations. Non-financial assets are comprised of tangible capital assets, inventory of materials and supplies, and prepaid expenses.

g) Tangible capital assets

Tangible capital assets are recorded at cost which includes all amounts that are directly attributable to acquisition, construction, development or betterment of the asset. Interest charges during the construction period are not capitalized.

The cost of routine maintenance and repairs and the replacement of minor parts are charged to expense as incurred. Certain expenditures relating to replacement of components incurred during major maintenance are capitalized and amortized over the estimated benefit period of such expenditures.

DRAINAGE UTILITY

NOTES TO FINANCIAL STATEMENTS (UNAUDITED)

For the year ended December 31, 2016 (in thousands of dollars)

Assets under construction are not amortized until available for productive use. Once construction is complete and the asset is placed into service, assets are transferred to the appropriate asset category. The project life-cycle from preliminary design to construction completion may exceed one year.

h) Amortization

Plant and infrastructure assets are grouped and amortized over their estimated useful lives on a straight line basis. Upon retirement of an asset from the group, the cost of the asset is cleared and fully offset with accumulated amortization. As a result, no gain or loss is recognized upon disposal. These assets comprise the majority of the Utility's asset base (89%).

Amortization rates for these assets are as follows:

Asset Category	Useful Life	Amortization Rate	% of Net Asset Base
Collection and Transmission Infrastructure	75 years	1.33%	84%
Pump/ Lift Stations	44 years	2.27%	3%
Clover Bar and Transfer Stations	44 years	2.27%	2%

Non-core assets cost, less residual value, is amortized on a straight-line basis over the following estimated useful lives of the assets:

Asset Category	Useful Life	Amortization Rate
Office Buildings	44 years	2.27%
Laboratories/Research and Development Centers	44 years	2.27%
Warehouses	10 years	10.00%
Office Furniture and Equipment	6.67 years	15.00%
Computers	5 years	20.00%
Monitoring and Control Equipment	10 years	10.00%
Machinery and Equipment	5 years	20.00%
		or usage based

One-half of the annual amortization is charged in the year of acquisition and in the year of disposal.

i) Contributions of tangible capital assets

Tangible capital assets acquired as contributions are recorded at their fair value on the date received. Equivalent amounts are recorded as contributed tangible capital assets on the Statement of Operations and Accumulated Surplus.

j) Deferred revenue

Funds received from external parties that are restricted for use in the conduct of certain programs or in the completion of specific work are deferred until used for the purpose specified.

k) Liability for contaminated sites

Contaminated sites are the result of a chemical, organic or radioactive material or live organism in amounts that exceed an environmental standard being introduced into soil, water or sediment. The Drainage Utility recognizes a liability for remediation of contaminated sites when the following criteria have been met:

- An environmental standard exists,
- There is evidence that contamination exceeds an environmental standard,
- The Drainage Utility is directly responsible or accepts responsibility for the contamination,
- It is expected that future economic benefits will be given up and,
- A reasonable estimate of the amount can be made.

Sites that are currently in productive use are only considered contaminated sites if an unexpected event results in remediation. In cases where the Drainage Utility's responsibility is not determinable, a contingent liability may be disclosed.

The liability reflects the Drainage Utility's best estimate, as of December 31, of the amount required to remediate non-productive sites to the current minimum standard of use prior to contamination. Where possible, provisions for remediation are based on environmental assessments completed on a site complemented with any other pertinent information based on costs to clean up similar sites. The liability is recorded net of any estimated recoveries from third parties. The Drainage Utility will measure the liability using present value techniques when cash flows are expected to occur over extended future periods.

DRAINAGE UTILITY

NOTES TO FINANCIAL STATEMENTS (UNAUDITED)

For the year ended December 31, 2016 (in thousands of dollars)

3. TANGIBLE CAPITAL ASSETS

Tangible capital assets include contributed and non-contributed assets and consist of the following:

Tangible Capital Asset	Cost	Accumulated Amortization	2016 Net Book Value	2015 Net Book Value
Collection & Transmission Infrastructure	\$ 3,646,743	\$ 715,238	\$ 2,931,505	\$ 2,545,986
Pump/ Lift Stations	82,879	19,355	63,524	55,318
Wastewater Treatment Infrastructure	5,691	3,147	2,544	2,673
Land	122,278	-	122,278	111,917
Office Buildings	5,670	1,742	3,928	2,196
Laboratories/Research and Development Centres	1,780	598	1,182	1,223
Warehouses	34,556	17,291	17,265	5,830
Office Furniture and Equipment	4,801	516	4,285	20
Vehicles	14,344	4,452	9,892	5,672
Computer Equipment	17,881	13,713	4,168	585
Construction Equipment	56,777	21,912	34,865	20,298
	3,993,400	797,964	3,195,436	2,751,718
Capital Assets Under Construction	97,921	-	97,921	229,170
Total	\$ 4,091,321	\$ 797,964	\$ 3,293,357	\$ 2,980,888
Tangible Capital Assets - Contributed	\$ 2,637,908	\$ 425,025	\$ 2,212,883	\$ 2,018,181
Tangible Capital Assets - Non-Contributed	1,453,413	372,939	1,080,474	962,707
	\$ 4,091,321	\$ 797,964	\$ 3,293,357	\$ 2,980,888

For additional information, see the Schedule of Tangible Capital Assets (Schedule 1).

4. ACCOUNTS PAYABLE AND ACCRUED LIABILITIES

	2016	2015
Trade and other	\$ 25,121	\$ 18,875
Contaminated sites	17,245	-
	\$ 42,366	\$ 18,875

DRAINAGE UTILITY

NOTES TO FINANCIAL STATEMENTS (UNAUDITED)

For the year ended December 31, 2016 (in thousands of dollars)

5. LONG-TERM DEBT

The Drainage Utility utilizes debt to finance capital expenditures under principles and limits established within the Drainage Utility Fiscal Policy. The policy is intended to support the Drainage Utility's long-term capital plans and strategies while maintaining long-term financial affordability, flexibility and sustainability. Borrowing has generally been in the form of amortizing debentures administered through the Alberta Capital Finance Authority (ACFA), utilizing the strong debt rating of the Government of Alberta and combined borrowing volumes across Alberta. Interest rates are established at the time of borrowing and remain constant throughout the

term of the debenture, thus eliminating the risk associated with fluctuating interest rates.

Existing long-term debt matures in 2041. Debenture interest is payable at rates ranging from 2.8% to 8.0%. The average interest rate is 3.8% for 2016 (2015 - 4.2%) with terms of 10 and 25 years. Payments are made annually or semi-annually.

a) Long-term debt is comprised of:

	2016	2015
Long-term debt	\$ 556,000	\$ 480,118
Long-term debt, secured through promissory note receivable from EPCOR	63,832	69,629
Debentures payable to Alberta Capital Finance Authority	\$ 619,832	\$ 549,747

Of the debentures payable to Alberta Capital Finance Authority, \$63,832 relates to the amount owing to the Drainage Utility by EPCOR through a promissory note receivable. As the debentures were previously issued for Gold Bar assets in the name of the City, the debt obligation remains with the City, with an offset of \$63,832 as a promissory note receivable from EPCOR.

b) The current portion of long-term debt amounts to \$28,562 (2015 - \$26,301).

Principal and interest repayments are as follows:

	Principal	Interest	Total
2017	\$ 28,562	\$ 24,362	\$ 52,924
2018	28,229	23,128	51,357
2019	27,152	21,909	49,061
2020	27,948	20,713	48,661
2021	28,351	19,466	47,817
Thereafter	479,590	147,697	627,287
Total	\$ 619,832	\$ 257,275	\$ 877,107

DRAINAGE UTILITY

NOTES TO FINANCIAL STATEMENTS (UNAUDITED)

For the year ended December 31, 2016 (in thousands of dollars)

6. GOVERNMENT TRANSFERS

	2016	2015
Capital transfers:		
Alberta Community Resilience Program	\$ 2,954	\$ 404

In 2016, the Drainage Utility received \$0 (2015 – \$8,224) for Tawa Park, Malcolm Tweddle and Ekota dry ponds and recorded \$2,954 (2015 – \$404) as capital government transfers to offset related expenses eligible under the terms of this grant. The remaining amount of \$4,866 (2015 – \$7,820) has been recorded as deferred revenue at the end of the year.

7. ACCUMULATED SURPLUS

The Drainage Utility's total accumulated surplus consists of its accumulated operating position (unrestricted), restricted amounts and equity in tangible capital assets as summarized below.

	2016	2015
Accumulated operating surplus/(deficit)	\$ 6,197	\$ (8,102)
Restricted surplus	75,294	68,319
Advances for construction/ (capital to be financed)	(8,653)	14,740
Equity in tangible capital assets	2,737,357	2,500,770
Total accumulated surplus	\$ 2,810,195	\$ 2,575,727

Restricted surplus consists of the Sanitary Servicing Strategy Fund (SSSF) and other developer contributions. These amounts are available to finance future capital projects. The SSSF consists of a pool of resources comprised of contributions made by the Drainage Utility, developers and home builders to provide a framework for future major trunk development in the City over the next 75 years.

Advances for construction represents debt proceeds received in advance of related capital expenses as well as capital expenses to be debt financed at year-end.

8. EQUITY IN TANGIBLE CAPITAL ASSETS

The Drainage Utility's total accumulated surplus consists of its accumulated operating position (unrestricted), restricted amounts and equity in tangible capital assets as summarized below.

	2016	2015
Tangible capital assets (Schedule 1)	\$ 4,091,321	\$ 3,722,316
Accumulated amortization (Schedule 1)	(797,964)	(741,428)
Long-term debt (Note 5)	(619,832)	(549,747)
Promissory note receivable (Note 5)	63,832	69,629
	\$ 2,737,357	\$ 2,500,770

DRAINAGE UTILITY

NOTES TO FINANCIAL STATEMENTS (UNAUDITED)

For the year ended December 31, 2016 (in thousands of dollars)

9. EXPENSES BY FUNCTION

	2016	2015
Corporate Administration	\$ 83,346	\$ 73,512
Operation	44,779	27,909
Systems Management	19,563	3,291
Program Management	16,324	13,000
Planning	9,692	24,998
Design & Construction	3,836	3,504
Strategic Services	3,453	4,002
	\$ 180,993	\$ 150,216

Corporate Administration expenses are mainly comprised of amortization, debt interest and local access fees.

10. LIABILITY FOR CONTAMINATED SITES

As of December 31, 2016, the liability for contaminated sites includes sites associated with former Drainage Utility operations. The nature of contamination includes chemicals, heavy metals, salt, biosolids and other organic and inorganic contaminants. The sources of contamination include a wastewater treatment plant and lagoon

Liability estimates are based on environmental site assessments and costs to remediate similar sites. The Drainage Utility has recognized a liability of \$17,245 (2015 - \$0) for remediation of contaminated sites. The liability is reported in Accounts payable and accrued liabilities in the Statement of Financial Position.

11. PRIOR YEAR RESTATEMENT

In 2015 \$6,832 in tangible capital assets were transferred from City tax-supported operations to the Drainage Utility, but were not recognized appropriately on a PSAS basis in the Drainage Utility financial statements. The prior year financial statement balances have been restated to correct this error. The effect of

the restatement is that the cash and temporary investments and accumulated surplus (equity in tangible capital assets) prior year balances on the Statement of Financial Position have each been increased by \$6,832, equivalent to the cost of the tangible capital assets transferred to the Drainage Utility.

12. COMPARATIVE INFORMATION

Comparative figures have been reclassified to conform with the financial statement presentation adopted for the current year.

DRAINAGE UTILITY

SUPPLEMENTAL INFORMATION – SCHEDULE 2 – TANGIBLE CAPITAL EXPENDITURES STATEMENT (UNAUDITED)

For the year ended December 31, 2016 (in thousands of dollars)

	2015-2018 Approved Budget Nov 29, 2016	2016 Approved Budget (Note 1) Nov 29, 2016	2016 Actuals
Drainage Neighbourhood Renewal			
Drainage Neighbourhood Renewal Coordination	\$ 121,400	\$ 23,764	\$ 43,784
Sewer Upgrading	4,513	500	(235)
Service Connection Renewal	1,501	(0)	0
	127,414	24,264	43,549
Drainage System Rehabilitation			
Mill Woods Double Barrel Replacement /SESS SA1	26,607	8,850	947
Structures Rehabilitation	26,316	8,139	6,742
Sewer Rehabilitation	20,685	3,268	5,273
High Priority Repair	49,555	7,197	22,883
Creek Erosion Protection	9,493	2,793	1,761
Optimization of 30 Avenue storm trunk overflow	7,741	2,407	347
Groat Road Trunk Sewer Rehabilitation	19,289	9,773	208
	159,686	42,426	38,161
Flood Mitigation			
Neighbourhood Flood Mitigation Projects	-	(11,178)	(11,178)
Flood Mitigation	64,968	20,486	10,787
Tweddle Place Dry Pond and Sewer Upgrades	35,713	17,853	15,213
Ekota Dry Pond and Menisa Storm Relief (EK1, MN1)	11,986	8,343	8,654
Tawa Dry Pond (TW1, HV1 & WL1)	28,617	8,310	1,437
Malcolm Tweddle & Edith Rodgers Dry Ponds	24,209	1,676	1,442
Morris Pond	4,830	4,812	3,522
Opportunistic Flood Mitigation Project	9,006	238	30
	179,331	50,540	29,906
Environmental Quality Enhancement			
Enhanced Biosolids Dewatering	40	40	40
SE Edmonton Stormwater Trunk 41 Ave	752	327	371
River for Life	2,746	-	-
Biosolids Facilities Renewal	8,053	3,382	(331)
Centrate Line Replacement	2,555	2,555	77
Fat, Oil and Grease Facility	-	-	-
Environmental & Collection System Monitoring	1,698	886	459
Quenelle Basin Loading Reduction	-	-	-
City Wide Odour Control Program	2,636	1,347	594
LID Capital Demonstration Projects	1,142	119	(168)
Silverberry 4 Pond Naturalization Pilot	1,368	54	32
Mill Creek End of Pipe Treatment Facility	10,959	4,575	2,715
	31,949	13,283	3,789
Combined Sewer Overflow Strategy			
Opportunistic Sewer Separation	9,950	467	289
Combined Sewer Overflow Control Projects	6,333	3,243	1,490
	16,282	3,710	1,779

(CONTINUED)

DRAINAGE UTILITY

SUPPLEMENTAL INFORMATION – SCHEDULE 2 – TANGIBLE CAPITAL EXPENDITURES STATEMENT (UNAUDITED)

For the year ended December 31, 2016 (in thousand of dollars)

(CONTINUED)

	2015-2018 Approved Budget Nov 29, 2016	2016 Approved Budget (Note 1) Nov 29, 2016	2016 Actuals
Drainage System Expansion			
Review/Inspect Developer Built Sewers	7,409	1,728	1,918
Drainage Operations Equipment and Vehicles	8,493	2,379	4,625
Utilities Infrastructure Equipment and Vehicles	16,392	5,141	12,366
Drainage Facility Upgrading	10,646	4,611	2,345
Kennedale Accommodation	5,455	3,263	669
Drainage IT Assets	4,104	2,307	1,098
Residuals Disposal Facility	(475)	6	7
Interconnection Control Program	4,309	1,050	673
Servicing for Downtown Intensification	2,403	-	-
	58,735	20,486	23,701
Sanitary Servicing Strategy Projects			
Sanitary Servicing Strategy Projects	96,135	37,086	12,344
WESS W12- SAN	582	675	214
	96,717	37,761	12,557
Drainage System Expansion			
Initial Phase Downtown STM Drainage Services	44,626	16,615	11,253
Local Improvement	25,791	13,809	43
Service Connection Expansion	13,789	(1,084)	451
Creek Erosion Protection	4,309	1,392	1,007
Total Capital	88,515	30,732	12,754
Other	-	-	(996)
Total Capital Expenditures	758,630	223,203	165,200
	-	-	-
Capital Expenditures by Financing			
Non-Contributed Financing			
Self-Liquidating Debt	371,974	133,846	120,354
Retained Earnings	180,817	17,021	13,019
Subtotal Non-Contributed Financing	552,791	150,867	133,374
Contributed Financing	205,839	72,336	31,826
Total Capital Expenditures	\$ 758,630	\$ 223,203	\$ 165,200
	-	-	-

Note 1: 2016 Approved Budget includes 2015 Carryforwards

DRAINAGE UTILITY

**SUPPLEMENTAL INFORMATION SCHEDULE 3 –
FINANCIAL INDICATORS (UNAUDITED)**

For the year ended December 31, 2016 (in thousands of dollars)

Financial Indicators	2014 Actuals	2015 Actuals	2016 Approved Budget	2016 Actuals	2017 Approved Budget
1. Rate Sufficient to Meet Expenses					
Net Income	50,424	43,296	38,994	24,333	44,673
Target: Positive Net Income	Yes	Yes	Yes	Yes	Yes
2. Cash Position (Combined)					
Next Year's Capital Financed by Pay As You Go	43,550	51,183	54,963	43,597	44,734
Risk Allowance	-	-	1,860	-	2,040
Rate Stabilization	-	-	1,667	-	-
Cash Target	43,550	51,183	58,490	43,597	46,774
Cash Position	25,566	17,820	58,490	27,790	46,774
Target: Cash position at minimum equal to the Cash Target.	No	No	Yes	No	Yes
3. Rate Increase					
Sanitary					
Typical Residential Monthly Billing Increase	\$ 1.39	\$ 0.50	\$ 0.50	\$ 0.50	\$ 0.50
Impact of Customer Rate	6.8%	2.3%	2.2%	2.2%	2.2%
Stormwater					
Typical Residential Monthly Billing Increase	\$ 0.86	\$ 0.50	\$ 0.50	\$ 0.50	\$ 0.50
Impact of Customer Rate	10.3%	5.4%	5.1%	5.1%	4.9%
Combined					
Typical Residential Monthly Billing Increase	\$ 2.25	\$ 1.00	\$ 1.00	\$ 1.00	\$ 1.00
Impact of Customer Rate	7.8%	3.2%	3.1%	3.1%	3.0%
Target: Stable, consistent rate increases	Yes	Yes	Yes	Yes	Yes
4. Financing of Capital Investments					
Debt to Net Assets Ratio	51%	50%	58%	52%	56%
Target: Between 50% – 70%; balancing cash availability, interest rates, and construction inflation.	Yes	Yes	Yes	Yes	Yes



“ I would like to thank your Drainage Services team for the amazing work that they did. The service was great – everything was explained clearly and promptly. During the hours of them trying to fix the situation, we were provided with regular updates by the team which was a big help as we always felt we were in the loop about what was going on. For a couple of new home buyers, my husband and I felt like we were well taken care of in a difficult situation. ”



**For more information, please
visit our websites:**

www.edmonton.ca/waste

www.edmonton.ca/drainage

Inquires may also be directed to:

The City of Edmonton
Waste and Drainage Services
2nd floor, Century Place
9803 - 102A Avenue NW
Edmonton, Alberta T5J 3A3

Telephone:
In Edmonton: 311
Outside Edmonton:
780-442-5311

**“ Whatever future challenges lie ahead,
I’m certain that our highly capable and
dedicated team will continue to help
make our city the best it can be ”**

- Chris Ward, Branch Manager, Waste and Drainage Services

