

## Utility Services

Amended June 2016

Branch Manager:  
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# 2016-2018 Business Plan



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## Message from the Manager



**“Utility Services provides and maintains innovative and environment-friendly waste management and drainage services to the people of Edmonton, supporting the City’s goal of creating a sustainable and resilient city that will support and enrich the lives of future generations.”**

Imagine waste management and drainage systems that are world-leading in their innovation and environmentally sustainable, yet focused on customer service and cost effectiveness. The wide range of programs and services described in this Business Plan, along with the integration of the two utilities (Waste Management Utility and Drainage Utility) under one branch and the resulting consolidation of their business plans for the first time, achieves that.

Within the Waste Management Utility, we will continue our focus on sustainable waste solutions with innovative waste processing that treats waste as a resource, while increasing our efforts to foster higher rates of landfill diversion for non-residential waste. Within the Drainage Utility, we will continue to service and maintain the City's drainage system to the highest and safest standard, while making sure that the river flowing out of our City is as healthy and vibrant as the river flowing in. Together, the Waste Management and Drainage Utilities will continue to partner on the processing and reusing of biosolids, treating these wastewater products in an environmentally responsible way and using them to benefit agricultural production in the Edmonton Region.

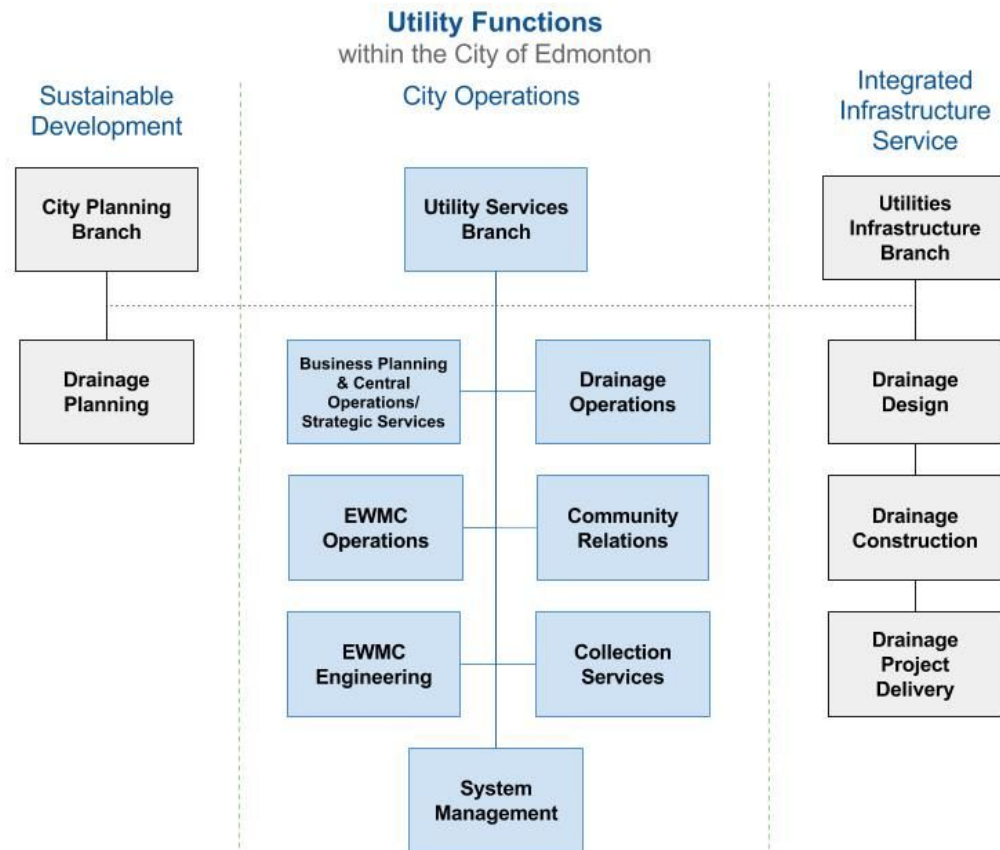
Integration of the utilities will enable us to optimize the way we deliver services and programs. While recognizing the uniqueness of the operational sides of the Waste Management and Drainage Utilities, we will leverage the strengths of each area and the combined knowledge, skills and passion of employees across our Branch to ensure that the people of Edmonton receive high value for the cost of their utilities. This means greater efficiency and effectiveness in providing uninterrupted and seamless services and timely and responsive customer support. It also means strong community engagement programs so that Edmontonians have an understanding of our programs and how they can contribute to reducing waste in our city and maintaining a healthy and

sustainable drainage system.

Utility Services now resides under City Operations. Being aligned with other service-orientated City Branches will also prove to better serve Edmontonians, as their needs will be served by a cohesive group that will provide the same customer experience whether it is for their utilities, roadways, transit, or parks. With this reorganization, what once made up Drainage Services - Drainage Design and Construction, Drainage Planning and Drainage Operations - now resides in three City Departments. While this shift makes sense in terms of work delivered by each area, it is imperative that we find ways to ensure that connections between the areas remain strong. After all, it is the combined efforts of planning, operations, design and construction that enables us to deliver the quality drainage services that Edmontonians deserve.

The programs and services outlined in this Business Plan align with City Council's 10-year strategic plans.

Chris Ward, Branch Manager  
Utility Services



## Our Branch

The City of Edmonton provides a wide range of programs and services to the public including the delivery of utility services through two municipally-owned public utilities to serve the needs of citizens. Under Utility Services, The City of Edmonton manages two utilities: Waste Management and Drainage. The City-owned utilities provide vital services which play an integral part in the day-to-day lives of City of Edmonton residents. The utilities also help promote City Council's overall vision and long-term strategic objectives.

Utility Services delivers programs and services to citizens with the help of other partners in the City. This is achieved through the following functions:

**Waste Management Utility** 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 10-year strategic goals: Preserve and Sustain Edmonton's Environment; Improve Edmonton's Livability; and Ensure Edmonton's Financial Sustainability.

**Drainage Utility** 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 the Drainage Utility's 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 Utility closely aligns with five of City Council's 10-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 vision and mission statements for the Waste Management and Drainage Utilities are presented below. Through the Utility Service integration work that is underway, a unified vision and mission will be developed for the branch.

#### **WASTE MANAGEMENT UTILITY VISION**

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

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

#### **WASTE MANAGEMENT UTILITY 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.***

The Waste Management Utility is committed to reducing its environmental footprint through utilizing the best economically and financially available means to manage waste and engage citizens to reduce waste through community outreach. The Waste Management Utility 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 UTILITY VISION**

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

The Drainage Utility provides high quality and 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, the Drainage Utility contributes to City of Edmonton strategic goals in the areas of sustainable growth, quality of life, prosperity, health, and the environment.

## DRAINAGE UTILITY 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.***

The Drainage Utility 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. The Drainage Utility 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 Utility Services reflect City of Edmonton goals and priorities, our professional values and the nature of our work.

### **Environmental Stewardship & Public Health**

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

### **Sustainability**

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

### **Excellent Service**

Utility Services achieves 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**

Utility 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**






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











## Contribution to the City's Vision

### THE WAY AHEAD

The information presented below illustrates how the Waste Management Utility and Drainage Utility align to the corporate outcomes and the strategies in place to achieve these outcomes. As, the two utilities have recently merged under the Utility Services branch, work is underway to facilitate the integration of the two areas. In the interim, both utilities have been aligned under eight existing strategic goals. This alignment will be revised and refined upon the completion of the Waste Management 20 Year Strategic Plan, and a Utility Services Strategic Plan.

Corporate Outcomes	Utility Services Strategies/Tactics/Action	Link to 10 year Strategic Goal
Goal: A Healthy Community Well Served		
Edmonton is a safe city	Utility 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.	  
Edmontonians are connected to the city in which they live, work, and play		
Edmonton is attractive and compact		
Edmontonians use facilities and services that promote healthy living		
Goal: Environmental Stewardship		
The City of Edmonton’s operations are environmentally sustainable	Utility Services is committed to preserving and protecting our environment and biodiversity through continuous improvement, regulatory compliance, and pollution prevention.	 
Edmonton is an environmentally sustainable and resilient city		



Goal: Sustainable Infrastructure		
The City of Edmonton has a sustainable and accessible infrastructure	Utility Services is committed to optimized and integrated asset management through effective planning and sustainable funding.	   
Edmonton is attractive and compact		
Edmonton has a globally competitive and entrepreneurial business climate		
Edmonton Region is a catalyst for industry and business growth		
Goal: Fiscal Sustainability		
The City of Edmonton has a resilient financial position	Utility Services strives for rates that are fair, equitable and provide value.	 
Edmonton has a globally competitive and entrepreneurial business climate		
Edmonton Region is a catalyst for industry and business growth		
Goal: Organizational Effectiveness		
The City of Edmonton has a resilient financial position	Utility Services fosters a culture of innovation and a strong sense of purpose, through a commitment to people, and optimizing systems and resources.	 
The City of Edmonton’s operations are environmentally sustainable		

 <b>Preserve and sustain Edmonton's environment</b>	 <b>Improve Edmonton's livability</b>	 <b>Ensure Edmonton's financial sustainability</b>
 <b>Transform Edmonton's urban form</b>	 <b>Diversify Edmonton's economy</b>	 <b>Shift Edmonton's transportation mode</b>

## BRANCH INITIATIVES

Utility Services contributes to the City's success in meeting strategic outcomes by undertaking several strategies, tactics and actions related to the Branch's goals and existing core programs and services.

**Organizational Integration:** Utility Services is in the first phase of the Utility Services integration project which includes the identification and consolidation of common functions within the former separate utilities. This is the first step towards creating a unified branch where employees learn from each other, create synergy, collaborate, and ensure that Edmonton residents receive the best possible customer service and value for the cost of their utilities.

**Performance Measures:** Utility Services places a priority on establishing meaningful performance measures focused on supporting operational business decisions for each of its business areas. Currently, an initiative is underway to develop comprehensive branchwide performance measures which includes the organization of business data and information and establishment of a performance measure reporting and management process within each of the business areas.

**Strategic Planning and Facility Master Plan:** The Waste Management Utility will complete a long-range strategic plan to serve as a road map for the next 20 years. This will shape the future of the City's waste management system and set direction to identify opportunities to further enhance Edmonton's position as a leader in sustainable waste management. Also, the Waste Management Utility will develop a facility master plan for the Edmonton Waste Management Centre to ensure facility strategies and initiatives are aligned with The Way Ahead and Utility Services overall vision.

**Edmonton Waste Management Centre facility construction and upgrades:** The Waste Management Utility will continue to maximize its processing capabilities to recover value from waste and minimize hauling of waste to a distant landfill for disposal. During 2017-2018, two key waste diversion facilities will become fully operational: the Waste to Biofuels and Chemicals Facility, which is owned and operated by Enerkem, and the Anaerobic Digestion Facility, which will augment the organics program. In addition, the Waste Management Utility will implement planned

upgrades to the Integrated Processing and Transfer Facility and the Refuse Derived Fuel Facility. These initiatives are aligned with the goals and objectives of “Preserve and Sustain Edmonton’s Environment” and enhance the Edmonton Waste Management Centre’s role in diverting waste from landfill. Over 50% of the residential stream will continue to be diverted in the short term, with a target of up to 90% upon full construction of these two facilities and the upgrades.

**Commercial waste diversion:** The Waste Management Utility will continue to deliver collection and processing services to non-residential customers through the Commercial Waste Collection Program and the Construction and Demolition Recycling Facility at the Edmonton Waste Management Centre. Through the 2016-2018 Business plan period a comprehensive marketing plan will be implemented to increase customers at the Edmonton Waste Management Centre, encourage increased landfill diversion of commercial waste, and increase revenue through the non-residential programs and efficient use of the facilities.

**Fostering waste reduction:** The Waste Management Utility will continue to deliver public education and social marketing programs aimed at reducing waste generation. These programs encourage residents to participate in grasscycling, backyard composting, recycling and reuse. During the next three years, the Waste Management Utility will add food waste prevention to its suite of social marketing programs. Food waste is increasingly gaining attention as a global issue. Communities and individuals can reduce their costs and environmental footprints by reducing food waste.

**Internal Communications:** The Drainage Utility has identified internal communication as an opportunity for improvement. This priority was supported through the result of the 2014 Employee Engagement & Diversity Survey. The respective areas within Drainage have implemented several strategies to address this opportunity through employee networking opportunities, creation of an employee suggestion box, digital monitors for information sharing, and regular communication from branch leadership. Drainage will continue to address this priority and improve or develop new strategies to implement effective internal communication. The recent merging of the Waste Management and Drainage Utilities will also allow the opportunity for both areas to integrate their strategies relating to effective internal communications.

**Drainage Capacity Implementation Plan:** The objective of the Drainage Capacity Implementation Plan is to ensure the successful delivery of the approved Drainage Utility Capital Program with a focus on the 4 major areas (i.e. Flood Mitigation, Neighbourhood Renewal, System Rehabilitation, and Sanitary Servicing Strategy).

Drainage Utility’s capital budget will see an increase over the next 10 years from \$186M in 2016 to \$288M in 2025. This significant increase will address growing demands and ensure that current and future customer needs are met in regards to Flood Mitigation, Neighbourhood Renewal and

System Rehabilitation. This plan is being driven by Utilities Infrastructure branch, under the Integrated Infrastructure Services department.

## **BUILDING A GREAT CITY**

### **CONTINUOUS IMPROVEMENT AND INNOVATION**

Utility Services will contribute to building a great city through continuous improvement and innovation initiatives aimed at achieving environmental sustainability, customer-focused services, and cost effectiveness and efficiencies.

**Business Process Review:** Utility Services will explore a business process review initiative to promote continuous improvement and optimize efficiency and effectiveness (e.g. Lean Six Sigma). This process will be piloted in business areas during the 2017-2018 budget period.

**Utilization of Waste Management Utility's In-House Mechanics:** Having dedicated trained and experienced mechanics to maintain specialized equipment used in the wood chipping and composting processes reduces reliance on external services which are subject to availability, distantly located and costly. In addition, Waste Management Utility mechanics can quickly address service issues, reduce costly service visits and improve productivity. Projected cost avoidance will be approximately \$200,000 annually.

**Assuming End-Of-Life-Cycle Asset Management:** The Waste Management Utility and Fleet Services will assess vehicles throughout their life cycle for refurbishment, seeking to extend asset life and lower capital costs. Projected cost avoidance will be approximately \$225,000 annually.

**Transition Nutri-Gold Program from Contracting to In-House Management:** For the Waste Management Utility, duties formerly contracted for Nutri-Gold, the City's biosolids management program, will now be performed by in-house staff. These duties include seeking potential customers and all aspects of product sampling, analysis, application and regulatory reporting. Projected cost avoidance will be approximately \$60,000 annually.

**SAP Mobility Solution:** Drainage Operations converted from paper based to electronic work orders within their working areas in conjunction with SAP timesheet reporting and management. This initiative is achieving a cost avoidance of approximately \$650,000 annually through efficiencies such as:

- Reduction in driving time (\$375,000)
- Administrative costs (associated with data entry, personnel, and paper savings: \$275,000) The implementation of this initiative required a technology expenditure of \$2.6M which occurred over 2014/2015.

**Tunnel Boring Machine Refurbishment:** The City of Edmonton's new Edmiston facility provides the Drainage Utility with the necessary infrastructure to refurbish tunnel boring machines in-house.

The trades group has been incrementally increasing its refurbishment capacity without having to hire external contractors. The group can complete 2 tunnel boring machine refurbishments annually achieving an annual cost savings of approximately \$400,000 per tunnel boring machine, or approximately \$800,000 annually.

**Digital Engineering Drawings Review:** The Drainage Utility is in the process of implementing a new review system that will allow us to switch from paper based engineering drawing reviews to a digital process. This initiative will achieve efficiencies by enabling improved workflow processes, decreased redundancy and duplication of work, and enhance document management. This initiative will achieve a cost savings of approximately \$320,000 annually. The implementation of this initiative required a technology expenditure of approximately \$540,000. The potential of expanding this initiative to other areas of the City organization has also been identified and is being explored.

Apart from these major initiatives, Utility Services is looking for other continuous improvement and innovation initiatives that will result in cost savings/avoidance.

## CULTURE IN THE WORKPLACE

The following tables provide an overview of the Culture Action Plans that have been developed based on the results of the 2014 Employee Engagement & Diversity Survey. The workplace culture in Utility Services is focused on improving culture through collaboration and diversity.

The Waste Management Utility Culture Action Plan is shown in the table below:

Culture Action Plan			
Issues to be Actioned	<p>The key issues to be actioned during this business planning period are:</p> <ul style="list-style-type: none"> <li>• Supervisor Feedback</li> <li>• Teamwork and Communication</li> <li>• Creating an Inclusive Workplace.</li> </ul>		
Desired Outcomes	<p>Expected outcomes related to the issues identified above will include the creation of a workplace free from discrimination and harassment, an increase in supervisor feedback and information sharing, and enhanced teamwork.</p>		
Performance Measures	<p>Results of the next Employee Engagement and Diversity Survey will illustrate the Waste Management Utility progress towards achieving its desired outcomes. The Waste Management Utility will focus on improving employee engagement and performance feedback to staff as well as create cross-sectional work opportunities in an inclusive and supportive environment.</p>		
Employee Engagement Survey Results (% favourable survey response)	2012 (Actual)	2014 (Actual)	2016 (Target)
<input type="checkbox"/> Overall Engagement <input type="checkbox"/> Overall Culture <input type="checkbox"/> Overall Workplace <input type="checkbox"/> Job Satisfaction <input type="checkbox"/> Overall Immediate Supervisor	<input type="checkbox"/> 72.7% <input type="checkbox"/> 68.6% <input type="checkbox"/> 68.7% <input type="checkbox"/> 71.2% <input type="checkbox"/> 70.1%	<input type="checkbox"/> 70.6% <input type="checkbox"/> 68.0% <input type="checkbox"/> 68.4% <input type="checkbox"/> 70.2% <input type="checkbox"/> 68.4%	<p>Maintain or improve favourable responses from 2014</p>

The Drainage Utility Culture Action Plan is shown in the table below:

Culture Action Plan			
Issue to be Actioned	<p>The key issues to be actioned during this business planning period are:</p> <ul style="list-style-type: none"> <li>● Improve information sharing and communication so everyone can get information when it's needed</li> <li>● Improve employee's trust in Branch and Department Leadership team</li> <li>● Improving supervisor feedback to employees</li> </ul>		
Desired Outcomes	<p>The Drainage Utility aims to achieve following Outcomes:</p> <p>Improved two-way communication will allow for greater transparency and will help promote trust among staff. Employees will better understand how their work contributes to the strategic directions of the Drainage Utility.</p> <p>The work environment supports the sharing and collaboration of staff ideas with leadership and shared commitment to explore ideas.</p> <p>Promote transparency along with establishing a platform for open dialogue between supervisors and employees. Employees are aware of how important their work is and how it contributes to their section, branch, department, and City.</p>		
Performance Measures	<p>The Drainage Utility will evaluate the progress towards achieving the desired outcomes by monitoring following Performance Measures. These measures will also assist Drainage to determine if the actions taken are effective in resolving issues identified in the survey.</p>		
Employee Engagement Survey Results (% favourable survey response)	2012 (Actual)	2014 (Actual)	2016 (Target)
<input type="checkbox"/> Overall Engagement <input type="checkbox"/> Overall Culture <input type="checkbox"/> Overall Workplace <input type="checkbox"/> Job Satisfaction <input type="checkbox"/> Overall Immediate Supervisor	<input type="checkbox"/> 66.3% <input type="checkbox"/> 62.8% <input type="checkbox"/> 61.3% <input type="checkbox"/> 61.2% <input type="checkbox"/> 64.5%	<input type="checkbox"/> 66.3% <input type="checkbox"/> 62.9% <input type="checkbox"/> 63.1% <input type="checkbox"/> 63.5% <input type="checkbox"/> 66.5%	Maintain or improve favourable responses from 2014





# Risk Identification and Emerging Issues

## RISK IDENTIFICATION

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

The table below outlines the risks identified for the Waste Management Utility:

Risk Factor	Likelihood (1 to 5)	Impact (1 to 5)	Mitigation Strategy	Risk Owner
Competition for processing and disposal services.	4	2	<ul style="list-style-type: none"> <li>● Offer services to municipal customers.</li> <li>● Implement an Edmonton Waste Management Centre marketing plan to generate customer growth.</li> </ul>	Branch Leadership
Contract cost escalation.	4	2	<ul style="list-style-type: none"> <li>● Utilize a competitive bidding process.</li> <li>● Engage multiple outside service providers.</li> <li>● Ensure the ability to meet customers' needs.</li> </ul>	Branch Leadership
Performance of contracted technology providers at the Edmonton Waste Management Centre.	2	3	<ul style="list-style-type: none"> <li>● Apply due diligence in structuring contract agreements and technology evaluation.</li> <li>● Collaborate with operators of contracted facilities.</li> </ul>	Branch Leadership
Volatility of markets for recycled commodities.	5	1	<ul style="list-style-type: none"> <li>● Optimize use of low value materials as refuse derived fuel feedstock.</li> <li>● Implement quality assurance measures to improve marketability of product.</li> <li>● Establish multiple markets and where possible, local markets.</li> </ul>	Branch Leadership

The table below outlines the risks identified for the Drainage Utility:

Risk Factor	Likelihood (1 to 5)	Impact (1 to 5)	Mitigation Strategy	Risk Owner
Climate Change – Particularly changes in rainfall patterns causing potential flooding.	5	5	<ul style="list-style-type: none"> <li>● Develop long-term flood mitigation strategy</li> <li>● Climate research and modelling</li> <li>● Maintain rain gauge network</li> </ul>	Drainage Planning
Aging Infrastructure – Aging infrastructure, proactive vs. reactive asset management	4	4	<ul style="list-style-type: none"> <li>● Develop holistic approach to integrated asset management</li> </ul>	Branch Leadership
Technology – Not keeping up with technology changes; particularly with construction technology.	3	4	<ul style="list-style-type: none"> <li>● Adopt new technology into our business (e.g. piloting new technology)</li> <li>● Adapt/react to changing technology (e.g. social media)</li> </ul>	Branch Leadership
Engaged Employees – Aging workforce, knowledge transfer, recruitment and retention.	3	3	<ul style="list-style-type: none"> <li>● Implementation of Culture Action Plan</li> <li>● Enhanced training and knowledge sharing</li> <li>● Development of standard processes and procedures</li> <li>● Succession planning and competency development</li> </ul>	Branch Leadership
Legal/Regulatory – Non-compliance due to changes in legislation; stricter environmental enforcement.	2	4	<ul style="list-style-type: none"> <li>● Ensuring due diligence in staying up to date and adjusting to any changing industry and environmental regulations (e.g. ENVISO).</li> <li>● Continuous improvement (e.g. Total Loadings Plan)</li> </ul>	Branch Leadership
Customer Expectations – Not meeting customer expectations with regards to level of service received, and access to timely information	3	2	<ul style="list-style-type: none"> <li>● Effectively managing customer's expectations</li> <li>● Managing our budget to meet customer expectations</li> <li>● Proactive and timely communication.</li> </ul>	Branch Leadership

## EMERGING ISSUES

The following emerging issues have been identified for Utility Services.

### REDUCED COMMERCIAL REVENUE

As indicated in the Risk Management section, revenue has declined over the past few years due to access disruptions to the Edmonton Waste Management Centre and new competing waste management services in the area. Until 2017, the Waste Management Utility will continue to be impacted by traffic delays caused by the construction of the northeast leg of Anthony Henday Drive. As well, multiple competing landfills and transfer stations located in or near Edmonton will continue to operate. Revenue projections in this business plan reflect these factors.

### ACHIEVING FINANCIAL SUSTAINABILITY

Through challenges identified in this and prior business plans, the Waste Management Utility continues to work towards achieving its financial targets. The Financial Impacts section in this Business Plan identifies the key drivers.

### RESIDENTIAL COLLECTION CONTRACTED SERVICES

Cost increases for collection of residential waste and recyclables are projected to increase in 2018 based on existing contracts and current market conditions, both of which are difficult to predict with certainty.

### AUTOMATED WASTE COLLECTION

Automated curbside collection will be explored during this Business Plan period to evaluate benefits and impacts of converting the existing manual collection system to an automated cart-based system. The study will determine potential efficiencies, options, and cost impacts of the change in the collection system.

### FLOOD MITIGATION

Historical severe storm events that have resulted in neighbourhood flooding has prompted the Drainage Utility to develop flood mitigation strategies to address the issue.

While implementation of the recommended capital improvements is underway, a proactive program continues to evolve from the City-wide Flood mitigation program.

Retrofitting neighbourhood features with storm water ponds and sewer upgrades is resource intensive, and must be staged in order to balance these works with other critical infrastructure management that the utility implements.

As reported last year, the near term plan is to continue with flood mitigation projects currently planned to address the impacted communities as part of the 2015 to 2018 Capital Budget. The impact of the city-wide improvements is expected to be more substantial, and quantified as concept plans are better known. In addition, this will also address how we can mitigate the potential risks associated with climate change.

## ODOUR CONTROL STRATEGY

Drainage addresses sewer odour issues based on areas of significant resident or community concern. This approach has led to the development of odour mitigation projects in several neighbourhoods. Drainage is developing a proactive approach to mitigate sewer odour across the city based on the comprehensive collection and analysis of the over 3,000 sewer odour complaints reported over the past decade. Drainage will be developing a list of prioritized projects to mitigate sewer odours throughout the City based on the location, frequency, and severity of these complaints, as well as other factors. Odour mitigation projects will then be planned, designed, and constructed in accordance with the prioritization list. With this proactive approach, Drainage aims to significantly reduce the impact of sewer odours on residents.

## SEWER ASSET RENEWAL

As sewer systems age the importance for a utility to systematically manage the condition of these assets, including timely repair/replacement, is increasingly important in order to ensure minimal service disruptions to citizens.

The investigation is focused on capacity (utilization), condition (structural) and functionality. This holistic approach will involve significant investigation and data management resources. The goal of these efforts is to develop asset upgrade and replacement plans for the short term (3 years), mid-term (10 years) and long term (20-75 year).

Recently, there has been a trend of increasing emergency repairs: in 2009, the emergency repair actuals was \$6.5 million; in 2015, this budget utilized \$16.8 million.

While a number of systematic processes are already in place, the utility is currently increasing its efforts to assess approximately 4,900km of assets that comprise the system.

## DRAINAGE CAPACITY IMPLEMENTATION PLAN

The Drainage Utility capital budget will see a significant increase over the next 10 years from \$186M in 2016 to \$288M in 2025. To manage this effectively, the Drainage Utility is developing a plan to address these growing demands.

The objective of the Drainage Capacity Implementation Plan (DCIP) is to ensure the successful delivery of the approved Drainage Utility Capital Program with a focus on the Flood Mitigation, Neighbourhood Renewal, System Rehabilitation, and Sanitary Servicing Strategy programs. Each of the focus areas will validate the capital and operational needs by determining our current ability (capacity, processes and delivery approach) to deliver these key programs and further explore viable alternatives to ensure delivery of the committed work.

This will help us to define our strategy and develop an action plan for the next three years (2016-2018). The strategy will take into consideration the lag time to build competency as well as the scalability of expanding the existing functions; while the action plan will include key activities, estimated timelines and resource requirements.

Throughout the process, there will be a continuous engagement with stakeholders both internally within the City as well as externally with industry partners.

## BIOSOLIDS MANAGEMENT STRATEGY

The implementation of the Biosolids Management Strategy will continue as presented in the 2016-2018 Business Plan to Utility Committee in June 2015. The 120% disposal target rate will be maintained throughout the 2016 - 2018 Budget. Operational changes in 2017 may temporarily reduce disposals from the lagoon site to match biosolids generation but will provide more cost effective biosolids disposal in the future program years. The primary methods of disposal will focus on the Compost Facility, the Nutrigold Program, and developing beneficial reuse options in non-agricultural uses. The Drainage Utility will continue to review the program to reduce risk and increase efficiencies.

## Branch Structure and Programs

The following table identifies Utility Services Programs and their functions:

Collection Services	Edmonton Waste Management Centre - Operations & Engineering	Community Relations	Drainage Operations	Business Planning & Central Operations /Strategic Services
Single Unit Recycling and Waste Collection	Composting Operations	Education Programs and Public Outreach	Operational Services	Facilities & Asset Management
Multi Unit Recycling and Waste Collection	Materials Recovery Facility	Reuse Centre Operations	Pipeline Maintenance	Information & Systems
Commercial Recycling and Waste Collection	Construction & Demolition (C&D) Recycling Facility	Volunteer Engagement	Regulatory Services	Workforce Development
Waste Drop-off (Community Recycling Depots, Eco Stations, Big Bin Events, Litter Program)	Applied Research and Development (R&D)	Customer Support	Pumpwell System Services	Business Planning
	Landfill Gas Recovery and Post Closure of Clover Bar landfill	Social Marketing	Specialty System Services	Billing Services & Admin Support
	Leachate Treatment Plant			OH&S*
	Environmental Management and Monitoring			
	Residential Transfer Station			

\*The OH&S Program is delivered from the Branch Manager's Office.

### Program 1: Collection Services



Collection Services responds to the current and changing needs of customers through efficient and effective waste collection and drop off services. The section provides collection of residential waste and recyclables for single and multi-family homes by both City of Edmonton staff and contracted services and provides services to non-residential customers. Collection Services' drop off program features four conveniently located Eco Stations and operates 12 Big Bin events where residents can drop off large and bulky items not suitable for collection. Also, 21 Community Recycling Depots are located throughout the city.



## Program 2: Edmonton Waste Management Centre Operations & Engineering

Edmonton Waste Management Centre is a unique collection of advanced waste processing and research facilities where waste is processed into reusable and marketable materials. Edmonton Waste Management Centre Operations and Engineering process residential and non-residential waste streams to recover resources and minimize landfilling. Waste that cannot be recovered or converted at the various facilities at the Edmonton Waste Management Centre are disposed at landfills.



### Program 3: Community Relations

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





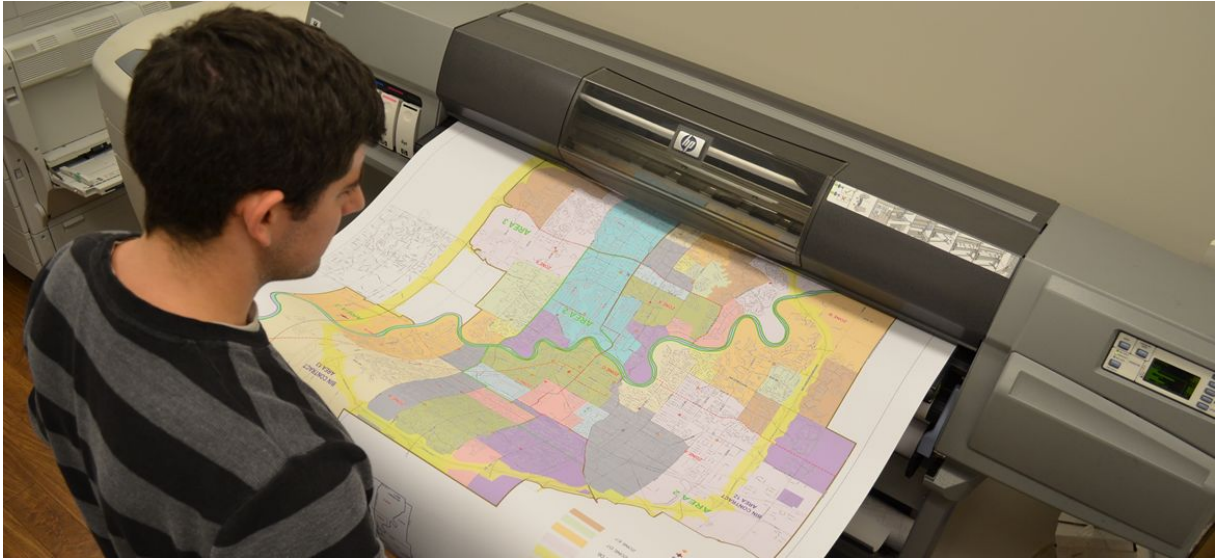
## Program 4: Drainage Operations

Drainage Operations provides preventative maintenance of the drainage infrastructure system and responds to customer service inquiries. This work ensures a reliable system, public health of citizens, environmental protection and customer satisfaction.



## Program 5: Business Planning and Central Operations/Strategic Services

Business Planning and Central Operations/Strategic Services is responsible for long term planning and provides strategic and specialized support for Utility Services. Specialized support is provided in areas of business planning, facilities and asset management, development and management of a performance measurement system, implementation of a workforce competency model, geospatial mapping/spatial data analysis, review of development applications, and utility billing management.



## Other Programs

As previously mentioned, the Drainage Utility includes functions that reside within other city departments. Utilities Infrastructure resides with the Integrated Infrastructure Services Department and Drainage Planning resides with the City Planning Branch with the Sustainable Development department.

**Utilities Infrastructure** is responsible for design and construction of sanitary and stormwater drainage infrastructure in support of the Drainage Utility. It also provides underground infrastructure design, construction, and project management services to other City of Edmonton departments.

**Drainage Planning** ensures that Edmonton has a drainage system that supports the City's plan for livability, growth, and environmental and financial sustainability by effectively planning and managing the growth, renewal and enhancement of the Sanitary and Stormwater systems and coordinating the development and implementation of the Drainage Utility capital program.



## Planned Changes 2017 - 2018

### Financial Impact

The Financial impact of changes to the 2016-2018 Business plan are segmented to reflect the governance of two distinct Utilities for the purposes of rate setting and to reflect that both the Waste Management Utility and the Drainage Services Utility are governed by their own principles as established by the following fiscal policies:

- Waste Management Fiscal Policy - C558A
- Drainage Services Fiscal Policy - C304D

While the Utilities are segmented for rate setting purpose, the two branches have now merged to become one Utility Services branch in November 2015. This change provides opportunities to streamline processes and deliver utility services in a consistent, effective and efficient manner to address the City's continued growth. There are no known financial impacts as a result of this restructuring.

### Financial Impacts for the Waste Management Utility

This Business Plan incorporates the principles as established by the Waste Management Utility Fiscal Policy C558A, with priority on stable, consistent rate increases and achievement of target cash position. This Business Plan is based on the Council Approved 2016 – 2018 Operating Budget, 2015 – 2018 Capital Budget and incorporates anticipated changes to 2017 and 2018 forecasts.

### Financial Challenges

The primary financial challenges for the Waste Management Utility relate to achieving and maintaining financial sustainability:

- To achieve a breakeven or positive net income for non-regulated operations
- To achieve and maintain a target cash position while ensuring stable, consistent rate increases

The 2015 Approved Budget and 2016-2018 Forecast for the Waste Management Utility are predicated on no subsidization of non-regulated programs by the regulated customer. Continuing with the strategy presented in the 2016 - 2018 Approved Operating Budget, stable, consistent rate increases are higher priority over cash position and debt to net assets ratio.

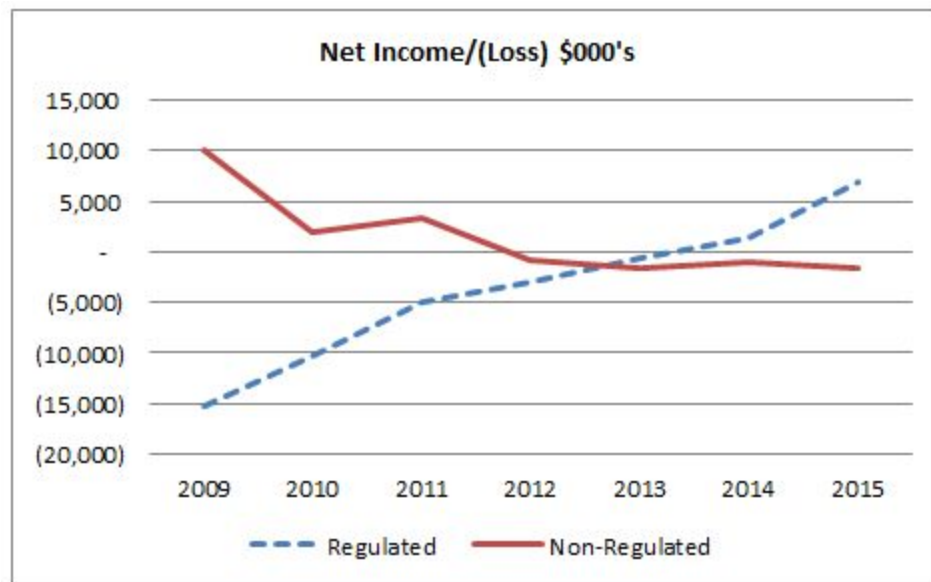
Regulated Collection and Processing and Disposal services are provided to residential customers



and are funded by the monthly waste service fee paid by residents. The Waste Management Utility also provides non-regulated services to non-residential customers which generate revenue to fund all non-regulated program costs and contribute towards offsetting increases to regulated rates. Non-regulated programs include commercial waste received at the Edmonton Waste Management Centre and commercial waste collection.

Historical performance of both regulated and non-regulated programs are illustrated below.

### 2009-2015 Net Position of Regulated and Non-Regulated Programs



Since becoming a utility in 2009, the Waste Management Utility's regulated programs have continued to progress towards a positive net position through increased operational effectiveness within the utility business model.

Since 2012, non-regulated revenue targets have not been achieved due to several factors including construction of the Anthony Henday Drive, competition from privately owned local landfills and transfer stations, and establishment of private transfer stations.

Significant factors affecting regulated and non-regulated programs over the next three years include:

- Operating Impacts of Capital
  - Anaerobic Digestion Facility
  - Refuse Derived Fuel capital projects
- Commissioning and operation of the Waste to Biofuels and Chemicals Facility
- Anthony Henday Drive construction

## 2017 – 2018 Amendments

The Waste Management Utility reviewed current economic assumptions, current business model and asset infrastructure (capital projects costs, funding and associated operating costs) for proposed amendments to both the 2017 and 2018 Approved Operating and Capital Budgets.

### 2016 – 2018 Amended Business Plan – Waste Management Utility

	In (\$000's)		
	2016 Approved Budget	2017 Proposed	2018 Proposed
<b>Revenue &amp; Transfers</b>			
Rate Revenue	157,939	171,227	182,021
Program Revenue	24,170	25,865	27,334
Grant Revenue	5,843	5,000	-
<b>Total Revenue &amp; Transfers</b>	<b>\$187,952</b>	<b>\$202,093</b>	<b>209,355</b>
<b>Expenditure &amp; Transfers</b>			
Personnel	48,001	50,635	52,630
Materials, Goods & Supplies	6,667	8,252	8,500
External Services	76,425	80,222	88,455
Fleet Services	15,800	16,241	16,689
Shared Services	10,051	10,357	10,669
Intra-municipal Services	1,570	1,595	1,607
Utilities & Other Charges	6,081	7,502	8,132
Amortization & Interest	32,064	35,088	38,513
Grants	5,843	5,000	-
Subtotal	202,503	214,891	225,194
Intra-municipal Recoveries	(15,505)	(15,896)	(16,377)
<b>Total Expenditure &amp; Transfers</b>	<b>\$186,998</b>	<b>\$198,995</b>	<b>208,817</b>
<b>Net Operating Requirement</b>	<b>\$ 954</b>	<b>\$ 3,098</b>	<b>538</b>
<b>Full-time Equivalents</b>	<b>548.6</b>	<b>564.3</b>	<b>568.5</b>

As shown in Waste Management Utility 2016 Approved Budget and 2017-2018 Forecast Financial Indicators, the Proposed 2017 Single Unit rate remains at \$45.16 and the Multi Unit rate remains at \$29.35 per month. The Proposed 2018 rate moved from \$47.72 Single Unit and \$31.01 Multi Unit

to \$47.28 and \$30.73 per month, respectively, as compared to 2016 – 2018 Approved Operating Budget.

### 2017-2018 Proposed Amendments by Category – Operating

	Incremental Change (in \$'000's)			
	Proposed 2017		Proposed 2018	
	Revenue	Expense	Revenue	Expense
Approved 2016 - 2018 Operating Budget*	\$ 199,290	\$ 197,327	\$ 207,331	\$ 206,461
<b>Changes to Maintain Current Service Levels</b>				
Termination of Third Party Lease	(679)		(71)	
Contract Costs adjustment for CPI per agreement		(650)		
Facility contracted operating costs per agreement		2,030		128
Compost Marketing program review		(103)		97
Arterial Road Assessment		500		
<b>Growth on Existing Services</b>				
Regulated Revenue	3,484		(744)	
UIS Billing Charges		(8)		(9)
<b>Impacts of Capital</b>				
Update debenture borrowing interest rates		(136)		(75)
Interest & Amortization for Additional Capital		37		511
<b>Capital Amendments</b>				
<b>Total 2017-2108 Proposed Amendments</b>	<b>\$ 2,805</b>	<b>\$ 1,670</b>	<b>\$ (815)</b>	<b>\$ 652</b>

\* Council approved 2016-2018 Operating Budget is the starting point or base budget and does not include the proposed 2017-2018 amendments.

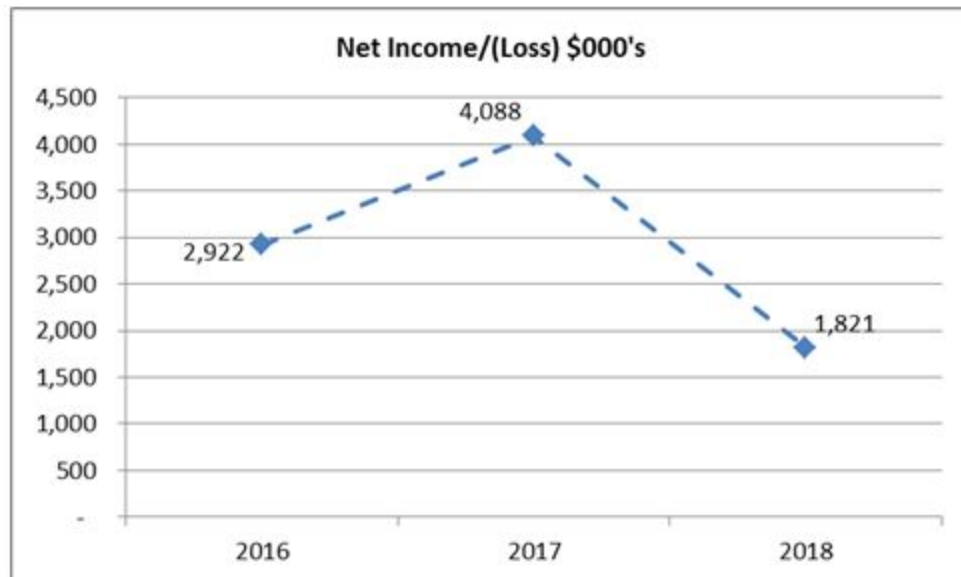
### 2017-2018 Proposed Amendments by Category – Capital

	Incremental Change (in \$000's)	
	Proposed 2017	Proposed 2018
<b>Capital Projects</b>		
Equipment and Vehicles (Processing & Disposal)	3,863	1,893
Arterial Roadway Assessment	(500)	(500)
Landfill Capping and Revegetation	412	-
<b>Total 2017-2018 Proposed Amendments</b>	<b>\$ 3,775</b>	<b>\$ 1,393</b>

## Rate Impacts

The forecast net position for regulated programs for 2016-2018 is illustrated below.

### 2016-2018 Forecast Net Position for Regulated Programs



Significant factors affecting the forecast net position of regulated programs include:

- Waste customer growth
- Volatility of markets for recycled commodities
- Contract cost escalation
- Implementation of new and updated technologies such as Refuse Derived Fuel Facility, Anaerobic Digestion Facility and Waste to Biofuels and Chemicals Facility

Regulated programs impact both customer rates for collection and processing and disposal of residential waste. Anticipated rate impacts for 2016-2018 Amended Business Plan are as follows:

## 2016-2018 Amended Rate Impacts by Percentage

Rate Impacts	2016	2017	2018
Operations and Maintenance	4.6%	5.6%	5.8%
Amortization & Interest	0.7%	1.8%	1.9%
Program Revenue	0.4%	(0.1%)	(0.2%)
Return on Rate Base	2.6%	(0.2%)	0.4%
Customer Growth	(1.2%)	(1.0%)	(1.0%)
Rate Stabilization	(1.4%)	(1.1%)	(2.2%)
<b>Total Proposed Change</b>	<b>5.7%</b>	<b>5.0%</b>	<b>4.7%</b>

## 2016-2018 Amended Rate Impacts in Dollars

Rate Impacts	Single Unit Rate Impact (\$/month)			Multi Unit Rate Impact (\$/month)		
	2016	2017	2018	2016	2017	2018
Operations and Maintenance	\$ 1.85	\$ 2.42	\$ 2.64	\$ 1.20	\$ 1.57	\$ 1.71
Amortization & Interest	0.27	0.77	0.85	0.18	0.50	0.55
Program Revenue	0.17	(0.03)	(0.10)	0.11	(0.02)	(0.06)
Return on Rate Base	1.07	(0.08)	0.20	0.69	(0.05)	0.13
Customer Growth	(0.49)	(0.44)	(0.46)	(0.32)	(0.29)	(0.30)
Rate Stabilization	(0.57)	(0.48)	(1.01)	(0.37)	(0.31)	(0.66)
<b>Total Change</b>	<b>\$ 2.31</b>	<b>\$ 2.15</b>	<b>\$ 2.13</b>	<b>\$ 1.50</b>	<b>\$ 1.40</b>	<b>\$ 1.38</b>

Operations and Maintenance increases relate to operating impacts of capital, existing personnel complement (such as contract settlement, annual increment and increase in benefit costs), escalation of contracted services, and the addition of new full time equivalents (FTEs).

Amortization and interest rate impacts occur as capital projects are put into operation. Interest costs are associated with debt to fund capital costs. Amortization expense is an allowance for replacement of capital, and will occur once the asset is put into operation. This Amended Business Plan incorporates a decrease to interest rates as compared to the 2016 – 2018 Approved Operating Budget, using a corporately revised, lower rate of interest on borrowing.

Program revenue is composed of various types of revenue which assist in funding regulated operations and maintenance. These include revenue from Eco Stations, sale of recyclable materials and revenues generated by third parties operating at Edmonton Waste Management Centre.

Return on rate base is the earnings from investments made in capital assets to ensure sufficient funding is available to meet ongoing operational, capital, and cash requirements balancing residential rate and long term financial stability. The reduction in 2017 represents the management of these needs while establishing stable rate changes during the period of the Amended Business Plan. This ensures the rate payer is only charged what is required based on the Utility's long term objectives.

The customer base was forecast incorporating historical actual customer counts, applying the corporate population growth forecast. For the 2016 – 2018 Amended Business Plan the major change in customer counts is due to the increase in 2015 actual customer counts as compared to the budget. This resulted in a larger base to spread the regulated costs, keeping the regulated rate on par with the 2016 – 2018 Approved Operating Budget.

Rate stabilization reduces the regulated rate. In accordance with the fiscal policy, in achievement of and maintaining stable rates and net income financial indicators, the rate stabilization is used to decrease the total regulated rate without major rate swings from year to year.

## New FTE Requests

The table below lists the FTEs requested through the 2016 – 2018 Approved Operating Budget with two updates to Processing and Disposal for 2016-2018 Amended Business Plan:

1. 1.0 FTE transferred in 2016 to Communications Department from the Waste Management Utility; and,
2. Addition of 1.0 FTE Marketing Planner in 2017 and a second in 2018.

## Summary of New Full Time Equivalent Request

Core Services		Processing & Disposal		Collections			Total
Year	Approved	Change	Proposed	Approved	Change	Proposed	Proposed
2016	19.6	(1.0)	18.6	4.1	-	4.1	22.7
2017	9.2	1.0	10.2	5.5	-	5.5	15.7
2018	1.0	1.0	2.0	2.2	-	2.2	4.2
Total	29.8	1.0	30.8	11.8	0.0	11.8	42.6

The majority of these FTEs are directly tied to maintaining current service levels and the balance are new personnel required for newly commissioned facilities. FTE Justifications for Additional Resources (FTEs) were included in the 2016-2018 Waste Management Utility Operating Budget while the updates for 2016-2018 Amended Business Plan will be dealt with following the 2017 Rate Filing process.

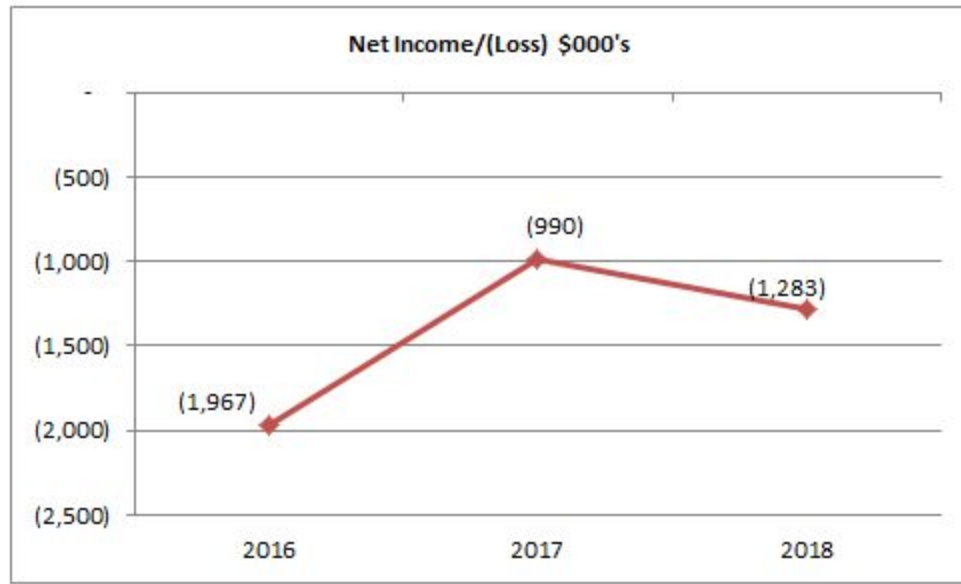




## Non-Regulated Programs

The forecast net position for non-regulated programs for 2016-2018 is illustrated below.

### 2016-2018 Forecast Net Position Non-Regulated Programs



Net Income from non-regulated programs was forecast to improve over 2016-2018 as a result of increased revenues due to Anthony Henday Drive construction being completed and implementation of marketing strategies to attract customers.

On November 26, 2014, as part of the 2015 Operating Budget deliberations, City Council approved a short-term loan to the Waste Management Utility for two purposes:

1. To ensure non-regulated losses are not subsidized by regulated revenues; and
2. To maintain a positive cash position for the Utility.

At the close of 2015, to cover non-regulated programs' losses and maintain a positive cash balance, the Waste Management Utility has drawn on the short-term loan from the City of Edmonton. The 2016 - 2018 Approved Operating Budget forecasted a draw of \$2.5 million, although improved actual performance over forecast resulted in a decreased draw of \$1.5 million.

Significant factors that will affect the net position of non-regulated programs include:

- Continued competition from privately owned landfills and transfer stations
- Volume of regional construction and demolition activities
- Competition for commercial waste collection contracts

Currently, the Waste Management Utility is taking the opportunity to review some business models and processes. These include:

- Edmonton Waste Management Centre inventory tracking system
- Price setting principles for non-regulated waste management activities
- Cost analysis methodologies for product and service offerings
- Risk allowance calculation

## Cash Position

The target cash position for the Utility is equal to the Pay as You Go requirement from the following year's capital plan, adjusted for a risk allowance to mitigate risk exposure, such as volatility of the markets for recyclable commodities.

The Waste Management Utility will utilize a capital funding strategy which maximizes debt financing over cash, while low Canadian lending rates are available. This will enable the Waste Management Utility to achieve a positive cash position each year. However, as a result of increasing debt financing for capital, the target debt to net assets ratio will not be achieved until 2024. This financing strategy is necessary in the short term to contribute to the Waste Management Utility's goal of financial sustainability.

Balancing the management of debt financing and cash for the Utility is constrained within the corporate processes, City debt limits as well as the Utility Fiscal Policy C558A. As per the Fiscal Policy, debt is only used for projects with benefits that extend 10 years or longer. Assets acquired under the 10 year threshold, such as Collection Services' vehicles, must be financed with cash rather than debt.

## Waste Management Utility Financial Indicators

Waste Management Utility Financial Indicators as established by Fiscal Policy C558A demonstrate the challenges faced by the Utility in the 2017-2018 business planning period.

## Waste Management Utility 2016 Approved Budget and 2017-2018 Forecast Financial Indicators

The financial information presented provides preliminary information on the plans for the Waste Management Utility. Updated indicators for 2017-2026 will be presented in the fall of 2016, demonstrating the Utility's plan to address current financial challenges and achieve financial sustainability in the long term.

Financial Indicators	2016 Approved Budget	2017 Proposed	2018 Proposed
<b>1 Rate Sufficient to Meet Expenditures and Cash Flow</b>			
Net Income (loss)	954	3,098	538
<i>Target: Positive Net Income</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>
<b>2 Cash Position</b>			
Pay As You Go Requirement	5,081	6,001	5,848
Risk Allowance	2,100	1,700	1,300
<i>Target Cash Position</i>	<i>7,181</i>	<i>7,701</i>	<i>7,148</i>
Actual Cash Balance	760	2,024	2,614
<i>Actual Cash ≥ Target</i>	<i>No</i>	<i>No</i>	<i>No</i>
<b>3 Residential Customer Rate Impacts</b>			
<u>Single Unit</u>			
Monthly Billing Increase	\$ 2.31	\$ 2.15	\$ 2.13
Impact of Customer Rate	5.7%	5.0%	4.7%
Monthly Unit Rate	\$ 43.00	\$ 45.16	\$ 47.28
<u>Multi Unit</u>			
Monthly Billing Increase	\$ 1.50	\$ 1.40	\$ 1.38
Impact of Customer Rate	5.7%	5.0%	4.7%
Monthly Unit Rate	\$ 27.95	\$ 29.35	\$ 30.73
<i>Target: Stable, consistent rate increases</i>	<i>No</i>	<i>No</i>	<i>No</i>
<b>4 Financing of Capital Investments</b>			
Debt to Net Assets Ratio	82%	81%	81%
<i>Target: Between 50% - 70%; balancing cash availability, construction inflation, and interest</i>	<i>No</i>	<i>No</i>	<i>No</i>

## Financial Impacts for the Drainage Utility

This Business Plan is prepared in adherence to the Drainage Utility Fiscal Policy (C304D). The Utility Fiscal Policy is focused on providing rate stability while ensuring the Drainage Utility has sufficient funds to meet ongoing capital, operating and cash flow needs. The supporting rate impacts reflect the services and processes needed to support the Utility's mission, values and strategic initiatives.

### Financial Challenges

The Drainage Utility capital budget will see a significant annual increase over the next 10 years from \$186M in 2016 to \$288M in 2025. This is due to the need to address system demands to ensure current and future customer requirements are met in Flood Mitigation, Neighbourhood Renewal and Systems Rehabilitation. To manage this effectively, the Drainage Utility is developing plans to address these growing demands.

For example, with Flood Mitigation historical severe storm events that have resulted in neighbourhood flooding has prompted the Drainage Utility to develop flood mitigation strategies to address the issue. While implementation of recommended capital improvements is underway, a proactive program continues to evolve from the City-wide Flood mitigation program.

The short-term plan is to continue with flood mitigation projects currently planned to address the impacted communities as part of the 2015-2018 Capital Budget. The city-wide plan on Flood Mitigation is expected to be more substantial, and quantified as concept plans are better known.

The financial targets for the Drainage Utility focus on providing stable and consistent rate increases and overall long-term financial sustainability. The challenge facing the Drainage Utility is providing the stable rate increases while managing the substantial growth of the Flood and other capital programs.

### 2017 – 2018 Amendments

The Drainage Utility reviewed assumptions, current business model and asset infrastructure for proposed amendments to both the 2017 and 2018 Approved Operating and Capital Budgets.

## 2016 – 2018 Amended Business Plan – Drainage Utility

	2016 Approved Budget	2017 Proposed Budget	2018 Proposed Budget
<b>Revenue &amp; Transfers</b>			
Rate Revenue	\$ 161,707	\$ 168,869	\$ 176,362
Program Revenue	11,183	12,221	10,758
<b>Total Revenue &amp; Transfers</b>	<b>172,890</b>	<b>181,090</b>	<b>187,120</b>
<b>Expenditure &amp; Transfers</b>			
Personnel	72,353	77,782	81,080
Materials, Goods & Supplies	39,376	42,906	37,797
External Services	81,438	88,649	77,372
Biosolids Disposal	16,662	17,412	17,562
Shared Services	15,953	16,905	17,351
Fleet Services	4,012	4,095	4,077
Other Intra-municipal Services	4,603	8,327	2,415
Interest and Amortization	44,205	48,029	52,345
Local Access Fee	8,762	9,076	9,406
Customer Billing Services	6,046	6,183	6,323
Utilities & Other Charges	3,790	4,054	4,074
Transfer to Sanitary Servicing Strategy Fund	1,300	1,300	1,300
Subtotal	<b>298,500</b>	<b>324,718</b>	<b>311,102</b>
Intra-municipal Recoveries	(164,604)	(181,639)	(161,501)
<b>Total Expenditure &amp; Transfers</b>	<b>133,896</b>	<b>143,079</b>	<b>149,601</b>
<b>Net Income (Loss)</b>	<b>\$ 38,994</b>	<b>\$ 38,011</b>	<b>\$ 37,519</b>
<b>Full-time Equivalents</b>	760.9	769.9	777.9

As shown, in the Drainage Utility 2016 Approved Budget and 2017-2018 Forecast Financial Indicators, the proposed 2017 & 2018 rate will remain at \$34.03 per month in 2017 and \$35.03 per month in 2018 for a typical residential customer.

## 2017-2018 Proposed Amendments by Category - Operating

	Incremental Change \$000's			
	Proposed 2017		Proposed 2018	
	Revenue	Expense	Revenue	Expense
Approved 2016 - 2018 Operating Budget*	\$ 181,059	\$ 143,471	\$ 187,142	\$ 149,920
<b>Changes to Maintain Current Service Levels</b>				
Increased Insurance Premium Costs		140		143
<b>Growth on Existing Services</b>				
Regulated Revenue	31		(22)	
UIS Billing Charges		2		(2)
<b>Impacts of Capital</b>				
Update debenture borrowing interest rates		(315)		(390)
Interest & Amortization for Additional Capital		(219)		(70)
<b>Total 2017 - 2018 Proposed Amendments</b>	<b>31</b>	<b>(392)</b>	<b>(22)</b>	<b>(319)</b>

\* Council approved 2016-2018 Operating Budget is the starting point or base budget and does not include the proposed 2017-2018 amendments.

## 2017-2018 Proposed Amendments by Category - Capital

	Incremental Change (in \$000's)		
	Proposed 2017	Proposed 2018	Proposed Total
<b>Capital Projects</b>			
Drainage Operations Equipment & Vehicles	2,209	1,592	3,801
Expanded Neighbourhood Flood Mitigation	(34,638)	(15,925)	(50,563)
Tweddle Place Dry Pond & Sewer Upgrades	28,209	7,504	35,713
Ekota Dry Pond and Menisa Storm Relief	10,587	1,399	11,986
Tawa Dry Pond (TW1, HV1, WL1)	18,572	10,045	28,617
Silverberry 4 Pond Naturalization Pilot	761	607	1,368
Centrate Line Replacement	2,555	-	2,555
Mill Woods Double Barrel Replacement	6,400	-	6,400
Service Connection Renewal	(1,918)	(375)	(2,293)
Sewer Laterals to Support Downtown Intensification	(9,936)	(5,262)	(15,198)
Sewer System Upgrading	(12,274)	(10,523)	(22,797)
Residuals Disposal Facility	6	-	6
Initial Phase Downtown Stormwater Drainage Servicing	(25)	-	(25)
<b>Total 2017-2018 Proposed Amendments</b>	<b>\$ 10,508</b>	<b>\$ (10,938)</b>	<b>\$ (430)</b>

## Rate Impacts

The rate impacts as a result of the 2016 – 2018 Business Plan is presented below. It shows the amended impacts relating to 2017 – 2018 and is grouped into three categories (Operating Impacts, Capital Impacts and Other Impacts).

### Drainage Utility Rate Impacts (\$/month for typical customer)

	Approved	Proposed	
	2016	2017	2018
<b>Operating Impacts</b>			
Operating & Maintenance	\$ 0.40	\$ 0.72	\$ 0.23
Biosolids	0.10	0.09	0.03
<b>Subtotal</b>	<b>\$ 0.50</b>	<b>\$ 0.81</b>	<b>\$ 0.26</b>
<b>Capital Impacts</b>			
Total Capital Program	\$ 1.55	\$ 1.09	\$ 1.63
<b>Subtotal</b>	<b>\$ 1.55</b>	<b>\$ 1.09</b>	<b>\$ 1.63</b>
<b>Other Impacts</b>			
Rate of Return	\$ (1.09)	\$ (0.94)	\$ (0.93)
Local Access Fee	0.04	0.04	0.04
<b>Subtotal</b>	<b>\$ (1.05)</b>	<b>\$ (0.90)</b>	<b>\$ (0.89)</b>
<b>Total Rate Impact</b>	<b>\$ 1.00</b>	<b>\$ 1.00</b>	<b>\$ 1.00</b>
<b>Current/Proposed Rate</b>	<b>\$ 33.03</b>	<b>\$ 34.03</b>	<b>\$ 35.03</b>

## 2016 – 2018 Amended Business Plan

### Operating Impacts

#### Operating and Maintenance

Operating and Maintenance rate increases, in the 2016 – 2018 Approved Budget, are primarily due to increased costs of operating a larger drainage system. The 2016-2018 approved budget



increases were primarily due to the addition of 35 new FTEs in 2016, 9 FTEs in 2017 and 8 FTEs in 2018 for a total of 52 FTEs.

Please refer to the table below for a full listing of the new FTEs that were requested as part of the 2016-2018 approved budget.

## New FTE Requests

Core Service	2016	2017	2018	Total
Planning	12.0	2.0	1.0	15.0
Operations	10.0	3.0	5.0	18.0
Design & Construction	10.0	3.0	2.0	15.0
Strategic Services	3.0	1.0	-	4.0
<b>Total</b>	<b>35.0</b>	<b>9.0</b>	<b>8.0</b>	<b>52.0</b>

The amended Business Plan includes a small increase related to costs associated with the growth of operational and maintenance equipment. This includes an additional insurance premium cost of \$140K in 2017 and \$143K in 2018.

## Biosolids Disposal

There are no changes to the 2017-2018 Amended Business Plan from the 2016 – 2018 Approved Operating Budget for Biosolids Disposal. Biosolids Disposal rate increases, in the 2016 – 2018 Approved Budget, are the result of maintaining disposal targets at 120% of generation. The 120% disposal target will be maintained throughout the 2016-2018 Business Plan period with the primary methods of disposal being the Compost Facility (operated by the Waste Management Utility), and beneficial reuse options in land application uses (external providers).

The Biosolids Management Strategy is a long term plan to manage the beneficial use of biosolids, in a cost effective and environmentally responsible manner. The benefits to residents' quality of life are also an important consideration. As such the 2016-2018 Approved Budget was prepared based on a scenario in which disposal and the reduction of inventory levels is maximized.

The current long term plan is to mitigate any potential environmental issues by drawing down the inventory levels at the Clover Bar Lagoons to a more manageable level of 50,000 dry tonnes. Based on proposed disposal targets, this target is forecast to be achieved by 2029.

To support this long term plan, additional dewatering capacity is required to meet the proposed biosolids disposal target. To address this issue an Enhanced Biosolids Dewatering Facility, approved at the March 14, 2013 Utility Committee, was commissioned in early 2015.

The Drainage Utility will continue to explore potential opportunities to implement additional cost effective disposal options, to allow the Utility to reach the 50,000 dry tonnes inventory level sooner, to further mitigate future environmental risks and improve residents' quality of life.

## Capital Impacts

The rate impacts on the 2016-2018 Approved Budget are the result of increased capital investment in key Drainage Services infrastructure such as Mature Neighbourhood Renewal, Flood Mitigation and Structure & Sewer Rehabilitation.

The capital impacts incorporate the addition of the Expanded Neighbourhood Flood Mitigation Program beginning in 2015. As the overall Flood Mitigation program ramps up, increased rate impacts will flow proportionally higher to the Drainage Utility.

Amortization and interest rate impacts will also occur as drainage infrastructure is put into operation and the resulting depreciation and related interest from debt financing are incurred.

The 2016 – 2018 Amended Business Plan includes increased capital needs associated with the Expanded Flood Mitigation, Millwoods Double Barrel Replacement as well as the Silverberry 4 Pond Naturalization Pilot and the Centrate Line Replacement. This is offset with a decrease in anticipated capital spending in this capital cycle on the profiles for Service Connection Renewals, Servicing for the Downtown Intensification and Sewer System Upgrading.

Further details surrounding the capital needs increase and rate impacts will be presented as part of the Spring Supplemental Capital Budget Adjustment and Fall Supplemental Operating Budget Adjustment.

The 2017-2018 Amended Capital Forecast can be seen in Appendix 2.

## Other Impacts

### Rate of Return

The Rate of Return is the amount of earnings required from investments made in capital assets to ensure sufficient funding is available to meet ongoing operating, capital and cash requirements while balancing rate stability and long term financial sustainability. The reduction in rate impact represents the management of these needs and ensures the ratepayer is charged only what is required based on the Utilities long term objectives

## Local Access Fee

The Drainage Utility pays 8% of rate revenue to the City of Edmonton for exclusive right of way access. As rate revenue increases, the Local Access Fee also increases.

**Financial Indicators**

The Financial Indicators for the 2016-2018 Amended Business Plan are presented in the table below. As shown below, based on current forecasts, the Drainage Utility is able to incorporate all the rate impacts listed above while maintaining a stable combined rate increase of \$1.00 per month (average 3% rate increase) each year for the typical customer. In addition, the Drainage Utility is also able to maintain a healthy Debt to Net Assets Ratio and maintain a cash balance that allows for current and future capital investment needs.



## Drainage Utility 2016 Approved Budget and 2017-2018 Forecast Financial Indicators

Financial Indicators	2016 Approved Budget	2017 Proposed	2018 Proposed
<b>1 Rate Sufficient to Meet Expenses</b>			
<b>Net Income</b>			
Sanitary	17,046	16,631	16,206
Stormwater	21,948	21,380	21,313
<i>Target: Positive Net Income</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>
<b>2 Cash Position (Combined)</b>			
Next Year's Capital Financed by Pay As You Go	54,963	14,468	37,182
Risk Allowance	1,860	1,928	1,636
Rate Stabilization	1,667	1,890	1,775
<b>Cash Target</b>	58,490	18,286	40,593
<b>Cash Position</b>	58,490	18,286	40,593
<i>Target: Cash position at minimum equal to the Cash Target.</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>
<b>3 Rate Increase</b>			
Sanitary			
<b>Typical Residential Monthly Billing Increase</b>	\$ 0.50	\$ 0.50	\$ 0.50
Impact of Customer Rate	2.2%	2.2%	2.1%
Stormwater			
<b>Typical Residential Monthly Billing Increase</b>	\$ 0.50	\$ 0.50	\$ 0.50
Impact of Customer Rate	5.1%	4.9%	4.7%
Combined			
<b>Typical Residential Monthly Billing Increase</b>	\$ 1.00	\$ 1.00	\$ 1.00
Impact of Customer Rate	3.1%	3.0%	2.9%
<i>Target: Stable, consistent rate increases</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>
<b>4 Financing of Capital Investments</b>			
Debt to Net Assets Ratio	58%	57%	58%
<i>Target: Between 50% - 70%; balancing cash availability, construction inflation, and interest</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>

The financial information presented above represents a preliminary look at the strategic plan for the Drainage Services Utility. Updated indicators for 2017-2026 will be presented in the fall of 2016 focusing on providing stable and consistent rate increases and overall long term financial sustainability while managing the challenges of delivering a growing capital and operating program.

## Appendix 1: Capital Investment

The following tables display the 2016 Approved Capital Budget and 2017 - 2018 Amended Capital Forecast for the Waste and Drainage Utilities:

### Waste Utility 2017 - 2018 Amended Capital Forecast

Amounts (\$000)

Capital Program Name	2016 Approved Budget	2017 Proposed	2018 Proposed	2019-2025 Proposed
<b>Collection Services Facilities</b>				
Northeast Eco Station	0	0	0	0
Northwest Eco Station	1,500	0	217	13,800
Kennedale Facility Expansion	0	0	0	0
Eco Stations Facilities Upgrade	0	0	0	0
<b>Subtotal</b>	<b>1,500</b>	<b>0</b>	<b>217</b>	<b>13,800</b>
<b>Processing &amp; Disposal Facilities</b>				
Integrated Processing & Transfer Facility	2770	12,000	8,020	0
Anaerobic Digestion Facility	15,000	22,035	0	32,533
Material Recovery Facility Renewal	1,010	8,000	5,000	7,397
Equipment Storage & Maintenance Facility Expansion	0	0	0	0
Cure Site Land Use and Development	3,000	4,500	2,500	0
Landfill Capping and Revegetation	1,519	1,370	1,392	4,170
Refuse Derived Fuel Dryer	6,950	457	0	0
Arterial Roadway Assessment	500	0	0	5,134
<b>Subtotal</b>	<b>30,749</b>	<b>48,362</b>	<b>16,912</b>	<b>49,234</b>
<b>Collection Services and Processing &amp; Disposal Infrastructure</b>				
Collection Facilities & Infrastructure	850	1,225	1,350	500
Waste Management Centre Facilities	4,440	3,233	3,417	6,315
Waste Management Centre Site Infrastructure	1,676	2,047	3,886	2,486
<b>Subtotal</b>	<b>6,966</b>	<b>6,505</b>	<b>8,653</b>	<b>9,301</b>
<b>Vehicles and Equipment</b>				
Waste Containers	2,200	3,332	3,273	2,400
Equipment and Vehicles (Collections)	2,428	4,519	4,197	8,879
Equipment and Vehicles (P&D)	3,147	6,054	6,497	1,709
<b>Subtotal</b>	<b>7,775</b>	<b>13,905</b>	<b>13,967</b>	<b>12,988</b>
<b>Total Capital Budget</b>	<b>46,990</b>	<b>68,772</b>	<b>39,749</b>	<b>85,323</b>
	2016 Approved Budget	2017 Proposed	2018 Proposed	2019-2025 Proposed
Total Growth	33,982	39,855	14,503	60,555
Total Renewal	13,009	28,917	25,246	24,768
<b>Total Capital Budget</b>	<b>46,990</b>	<b>68,772</b>	<b>39,749</b>	<b>85,323</b>

## Drainage Utility 2017 - 2018 Amended Capital Forecast

Amounts (\$'000)


Capital Program Name	2016 Approved Budget	2017 Proposed	2018 Proposed	2019 and Beyond
<b>Non-Contributed</b>				
<b>Drainage Neighbourhood Renewal</b>				
Drainage Neighbourhood Renewal Coordination	29,159	22,786	22,470	239,837
Sewer Upgrading	2,652	(350)	1,858	199,685
Service Connection Renewal	1,061	(310)	751	15,830
<b>Subtotal</b>	<b>32,872</b>	<b>22,126</b>	<b>25,079</b>	<b>455,352</b>
<b>Drainage System Rehabilitation</b>				
Mill Woods Double Barrel Replacement/SESS SA1	7,426	7,824	-	-
Structures Rehabilitation	6,060	9,413	7,554	62,637
Sewer Rehabilitation	5,092	3,421	5,402	42,638
High Priority Repair	12,200	7,563	12,943	102,153
Creek Erosion Protection	2,228	285	2,589	21,356
Optimization of 30 Avenue storm trunk overflow	2,122	5,596	-	-
Groat Road Trunk Sewer Rehabilitation	8,487	10,027	-	-
<b>Subtotal</b>	<b>43,615</b>	<b>44,129</b>	<b>28,489</b>	<b>228,784</b>
<b>Flood Mitigation</b>				
Neighbourhood Flood Mitigation Projects	13,932	9,033	9,512	10,528
Expanded Neighbourhood Flood Mitigation	16,818	(14,918)	9,519	306,565
Tweddle Place Dry Pond and Sewer Upgrades	-	28,209	7,504	22,089
Ekota Dry Pond and Menisa Storm Relief (EK1, MN1)	-	10,587	1,399	-
Tawa Dry Pond (TW1, HW1 & WL1)	-	18,572	10,045	-
Morris Pond	-	4,812	-	-
Opportunistic Flood Mitigation Project	-	3,388	-	60,073
<b>Subtotal</b>	<b>30,750</b>	<b>59,683</b>	<b>37,979</b>	<b>399,253</b>
<b>Environmental Quality Enhancement</b>				
Enhanced Biosolids Dewatering	-	300	-	-
SE Edmonton Stormwater Trunk 41 Ave	-	-	-	-
River for Life	-	1,410	1,857	94,603
Biosolids Facilities Renewal	2,801	2,810	1,171	14,129
Centrate Line Replacement	-	2,555	-	-
Fat, Oil and Grease Facility	-	-	-	14,120
Environmental & Collection System Monitoring	451	1,161	411	3,553
Queenie Basin Loading Reduction	-	-	-	3,905
City Wide Odour Control Program	1,591	1,894	1,238	9,771
Environmental Enhancement Projects	212	125	225	2,665
Silverberry 4 Pond Naturalization Pilot	-	761	607	150
Mill Creek End of Pipe Treatment Facility	2,633	5,637	2,334	-
<b>Subtotal</b>	<b>7,688</b>	<b>16,653</b>	<b>7,843</b>	<b>142,896</b>
<b>Combined Sewer Overflow Strategy</b>				
Opportunistic Sewer Separation	530	4,854	4,502	35,532
Combined Sewer Overflow Control Projects	3,183	2,061	-	-
<b>Subtotal</b>	<b>3,713</b>	<b>6,914</b>	<b>4,502</b>	<b>35,532</b>
<b>Drainage System Expansion</b>				
Review/Inspect Developer Built Sewers	1,784	1,855	2,047	17,490
Drainage Construction and Equipment	3,593	958	2,153	28,607
Drainage Construction Equipment and Vehicles	-	7,742	8,650	40,051
Drainage Facility Upgrading	3,713	2,537	1,688	8,651
Kennedale Accommodation	5,305	4,885	-	-
Drainage IT Assets	2,652	4,886	2,814	22,207
Residuals Disposal Facility	-	6	-	-
Interconnection Control Program	1,061	1,082	1,126	8,883
Servicing for Downtown Intensification	1,061	414	928	16,607
<b>Subtotal</b>	<b>19,169</b>	<b>24,365</b>	<b>19,406</b>	<b>142,497</b>
<b>Contributed</b>				
<b>Sanitary Servicing Strategy Projects</b>				
Sanitary Servicing Strategy Projects	24,558	35,513	22,759	195,424
WESS W12-SAN	-	675	-	-
<b>Subtotal</b>	<b>24,558</b>	<b>36,189</b>	<b>22,759</b>	<b>195,424</b>
<b>Drainage System Expansion</b>				
Initial Phase Downtown STM Drainage Services	13,850	16,713	7,200	87,301
Local Improvement	5,305	16,153	5,628	51,802
Service Connection Expansion	3,395	(982)	3,602	28,425
Creek Erosion Protection	1,061	4,216	1,126	23,370
<b>Subtotal</b>	<b>23,611</b>	<b>36,101</b>	<b>17,555</b>	<b>190,899</b>
<b>Total Capital Budget</b>	<b>185,977</b>	<b>246,160</b>	<b>163,609</b>	<b>1,790,635</b>



# Key Measures


## APPENDIX 2 - SUMMARY ALIGNMENT OF OUTCOMES & PERFORMANCE MEASURES

The following tables capture how the work of Utility Services aligns to a Corporate Outcome and/or to a Corporate Leadership Team (CLT) Strategic Focus Area as well as associated performance measures. The performance measures are intended to provide a summary of the measures that the Branch is currently monitoring and are identified throughout this business plan.





Corporate Goals	Area	Branch Performance Measures	Actual	Target			
			2015	2016	2017	2018	
Goal: A Healthy Community Well Served							
	Waste Mgmt	Number of users of Eco Stations and Big Bin Events.	287,989	297,000	305,000	310,000	Utility 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.
		Percentage of households recycling	93%	95%	95%	95%	
		Number of missed collection stops per 10,000.	2	4	4	4	
		Percentage of customers satisfied with waste collection services.	89%	95%	95%	95%	






	Drainage	Percentage of emergencies responded to within 2 hours	84%	85%	86%	87%	
		Number of Blocked Mainline Sewers per 100 KM	1.3	2.5	2.4	2.4	
		Percentage of mature neighborhoods at 1:100 level of service	8.7%	12.0%	13.0%	16.0%	

Corporate Goals	Area	Branch Performance Measures	Actual	Target			Branch Strategic Direction
			2015	2016	2017	2018	
Goal: Environmental Stewardship							
	Waste Mgmt	Compliance with environmental permits and regulations.	100%	100%	100%	100%	Utility Services is committed to preserving and protecting our environment and biodiversity through continuous improvement, regulatory compliance, and pollution prevention.
		Percentage diversion of residential waste from landfill.	52%	65%	75%	90%	
		Cost per tonne of material processed at the Edmonton Waste Management Centre.	\$99	\$104	\$107	\$108	
		Tonnes of non-residential waste diverted from landfill.	65,000	80,000	80,000	80,000	
	Drainage	Edmonton Watershed	6.7	6.7	6.8	6.9	

		Contaminant Reduction Index Score (five-year rolling average)					
	<i>*Index available from AEP at a later time</i>	River Water Quality Index	87 (Target)*	87	87	88	
		Kg of Total Loading – TSS (five-year rolling average)	53,300	51,000	50,000	50,000	

Corporate Goals	Area	Branch Performance Measures	Actual	Target			Branch Strategic Direction
			2015	2016	2017	2018	
Goal: Sustainable Infrastructure							
   	Drainage	Percent of Land Development Applications reviewed on time	55%	65%	80%	80%	Utility Services is committed to optimized and integrated asset management through effective planning and sustainable funding.
		Pipe Capacity Rating (SAN-STM-CSO: 2/B or Better)	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%	90.0%	90.0%	90.0%	
		Percentage capital (as rehabilitation) re-invested compared to total system replacement value	0.45%	0.58%	0.70%	0.81%	

Corporate Goals	Area	Branch Performance Measures	Actual	Target			Branch Strategic Direction
			2015	2016	2017	2018	
Goal: Fiscal Sustainability							
	Drainage	Annual Net Income	\$43.3M	\$39.0M	\$37.6M	\$37.2M	Utility Services strives for rates that are fair, equitable and provide value.
		Percentage Rate Increase	3.2%	3.1%	3.0%	2.9%	
		Debt to Net Asset Ratio	51%	58%	57%	58%	
		Cash Position	\$59.9M	\$58.4M	\$38.7M	\$36.8M	

Corporate Goals	Area	Branch Performance Measures	Actual	Target			Branch Strategic Direction
			2015	2016	2017	2018	
Goal: Organizational Effectiveness							
 	Waste Mgmt	Cost per tonne for curbside collection of refuse and recyclables	\$143	\$151	\$153	\$174	Utility Services fosters a culture of innovation and a strong sense of purpose, through a commitment to people, and optimizing systems and resources.
		Percentage diversion of residential waste from landfill	52%	65%	75%	90%	
	Drainage	Employee Engagement Survey Score	66.3%	68.0%	N/A	70.0%	
		Percentage turnover per 100 FTEs (excluding retirement)	3.4%	6.0%	6.0%	6.0%	

 <b>Preserve and sustain Edmonton's environment</b>	 <b>Improve Edmonton's livability</b>	 <b>Ensure Edmonton's financial sustainability</b>
 <b>Transform Edmonton's urban form</b>	 <b>Diversify Edmonton's economy</b>	 <b>Shift Edmonton's transportation mode</b>