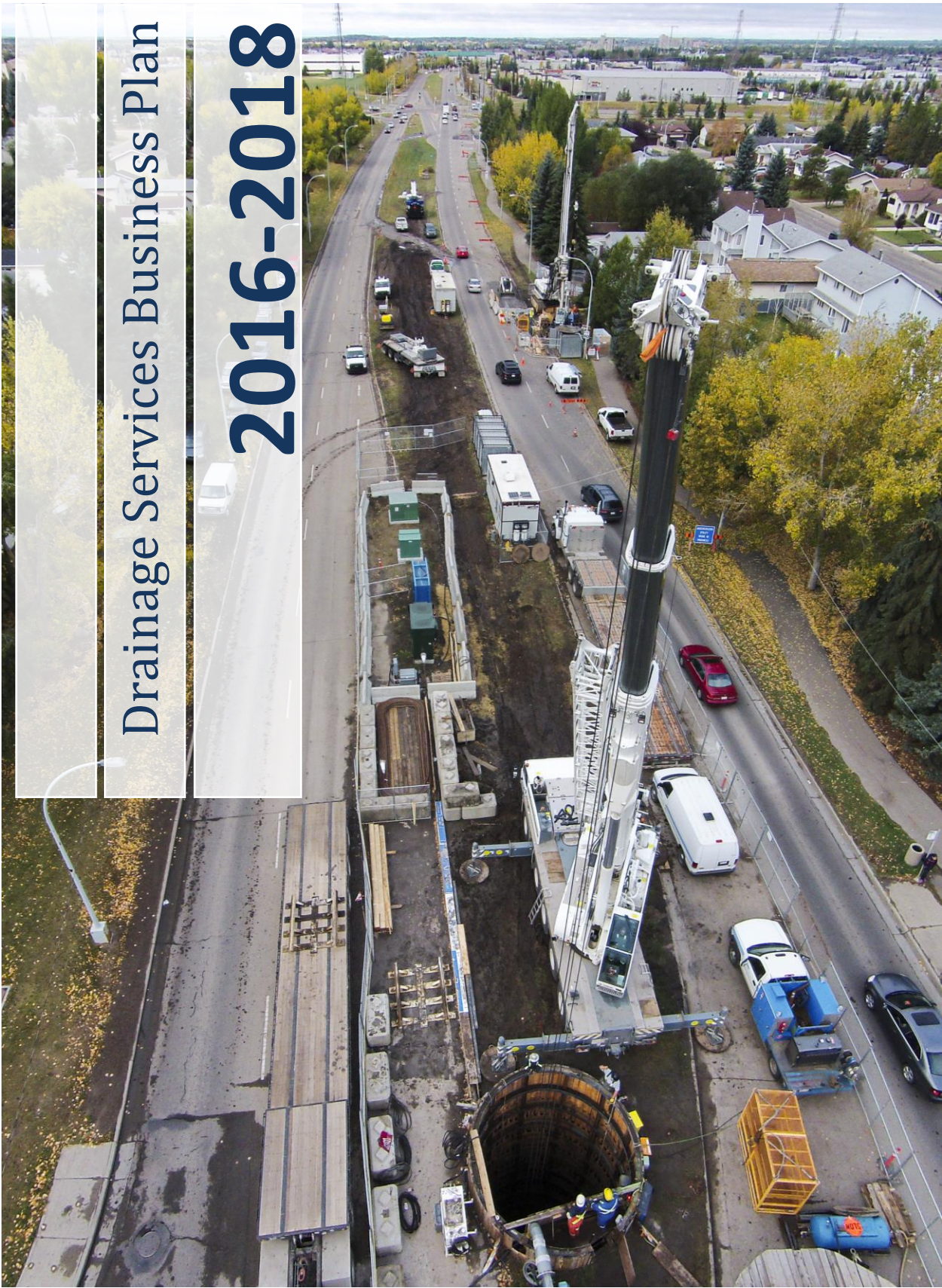


Drainage Services Business Plan

2016-2018





# TABLE OF CONTENTS

Introduction	3
Organizational Categories	3
Overview of Utilities	4
Strategic Foundation	
Vision	5
Mission	5
Values	6
Goals	7
Key Strategic Directions	8
Culture	14
Risk Identification	15
Emerging Issues	16
Positive Change Initiatives	18
Financial Impacts	19
Further Information	23



# INTRODUCTION

The Drainage Services 2016 to 2018 Business Plan aligns with the City of Edmonton directions and priorities as outlined in The Way Ahead, and with the Financial Services and Utilities Department priorities. This Business Plan will guide the operations of Drainage Services for the three years beginning in 2016.

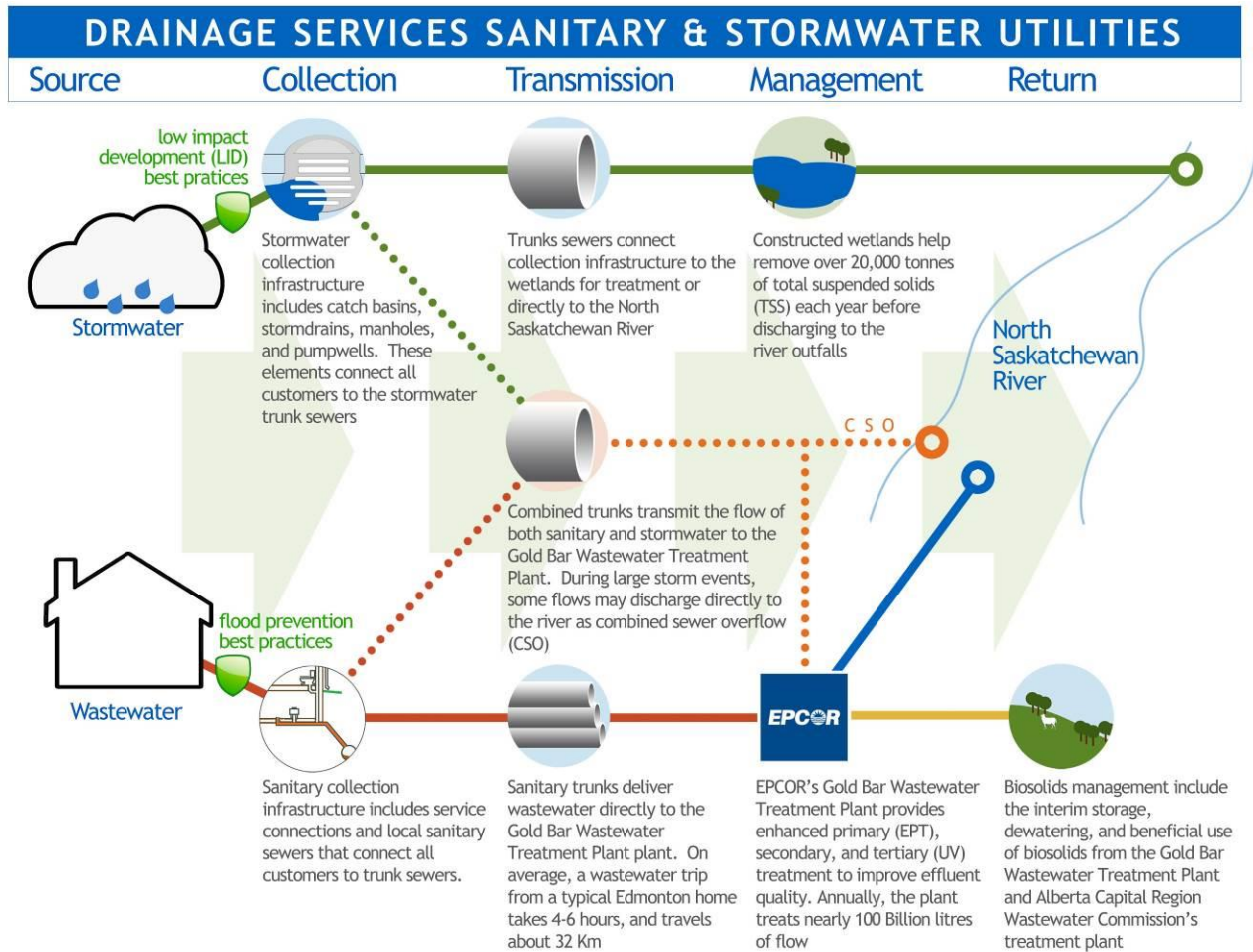
The goals and Key initiatives outlined in the 2016 to 2018 Business Plan have been updated to align with the Aspirational Drainage Master Plan. Other changes from the 2016 to 2018 Business Plan include the update of the emerging issues and an update on the financial impacts.

Based on these considerations, the leadership team of Drainage Services has developed the following 2016 to 2018 Business Plan.

## ORGANIZATIONAL CATEGORIES

Branch Leadership and Management		
Think Outcome: A comprehensive view of the drainage system and its priorities and standards	Build Outcome: A drainage system that meets our standards	Operate Outcome: Optimized drainage system effectiveness
<b>Core Activities:</b> <ul style="list-style-type: none"><li>• Drainage System Inventory (physical assets)</li><li>• Drainage System Information (performance, organization, etc.)</li><li>• Innovation and Future System Needs</li></ul>	<b>Core Activities:</b> <ul style="list-style-type: none"><li>• Scope and design</li><li>• Build</li><li>• Inspection and system access permission</li></ul>	<b>Core Activities:</b> <ul style="list-style-type: none"><li>• Proactive maintenance</li><li>• Reactive maintenance</li><li>• Monitoring and enforcement</li></ul>
Support Outcome: An organization that is optimally enabled to perform and achieve its goals		
<b>Core Activity:</b> Business Methods and Process		

# Overview of Storm and Sanitary Utilities



# STRATEGIC FRAMEWORK

## VISION

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

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

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

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

Drainage 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***

Drainage 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 infrastructure to achieve sustainable urban development goals; and we enable affordable utility rates for the people of Edmonton over the long term.

### ***Excellent Service***

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

### ***Engaged and Inspired Employees***

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***

Drainage Services recognizes the increasing cross-jurisdictional and cross-functional nature of environmental, asset management, and financial challenges; hence 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.



# GOALS

The following six align with the Aspirational Drainage Master Plan (2015-2024). Each Goal is composed of Key Strategic Directions. The icons beside each goal indicate the link to the City's 10-year goals.

## 1. HEALTHY LIVING AND ENVIRONMENTAL STEWARDSHIP



Drainage Services is committed to reducing its impact on our environment and protect the health of our people and ecosystem through continuous improvement towards zero pollutants and contaminants

## 2. CITIZENS WELL SERVED



Drainage Services desires to ensure our customers feel well served by the utility. This means that citizens feel they receive good value for the cost of drainage services, which includes uninterrupted and seamless service, flood risk reduction, and timely and enthusiastic customer support.

## 3. SUPPORTING AND ENHANCING GROWTH AND DEVELOPMENT



As the City continues to explore urban densification; residential, commercial and industrial development; and regional collaboration; Drainage Services will continue to work closely with other City departments and developers to ensure our neighbourhoods are sustainable and have minimal environmental impact.

## 4. SUSTAINABLE INFRASTRUCTURE



Drainage Services is committed to a proactive, optimized and integrated asset management approach linking operational data with long term planning. This approach ensures the continued integrity of our assets, reduces the need for emergency repairs, and supports innovation.

## 5. FISCAL RESPONSIBILITY



Fiscal responsibility means that we have a well-planned, balanced, and managed budget that clearly demonstrates to customers the value they receive for the rates they pay. As a fiscally responsible utility, Drainage Services has planned our finances to enable us to support our operations and goals in a manner that is fair and equitable to current and future ratepayers.

## 6. ORGANIZATIONAL EXCELLENCE



Drainage Services is committed to optimizing the way we manage our people, equipment, and our workplace by providing a healthy, engaging, productive workplace where employees feel a strong sense of pride and purpose. We implement sound management practices and processes and engage effective communication.



Green



Grow



Live



Finance



Prosper



Move

## KEY STRATEGIC DIRECTIONS

Goals	Strategic Directions	Performance Measurement
1. Healthy Living and Environmental Stewardship	➤ Mitigate the environmental and public health impacts of combined sewers.	➤ Edmonton Watershed Contaminant Index Score (five-year rolling average) <u>Actuals:</u> 2012 - 6.7 2013 - 6.5 2014 - 6.5 <u>Target:</u> 2015 - 6.5 2016 - 6.7 2017 - 6.8 2018 - 6.9
	➤ Coordinate with regulators to ensure understanding and compliance with current and emerging regulations.	
	➤ Reduce the amount and improve the quality of stormwater discharge through a variety of approaches including encouraging low impact development, increasing the use of green infrastructure and exploring innovative techniques.	➤ River Water Quality Index <u>Actuals:</u> 2012 - 87.0 2013 - 87.0 2014 - 87.0 <u>Target:</u> 2015 - 87.0 2016 - 87.0 2017 - 87.0 2018 - 88.0
	➤ Develop solutions to support the beneficial use of biosolids.	
	➤ Engage in Proactive Watershed management and planning such as the River for Life Strategy.	
	➤ Minimize system odour emissions and air entrapment impacts.	➤ Kg of Total Loading - TSS (five-year rolling average) <u>Actuals:</u> 2012 - 40,000 (3-year avg) 2013 - 43,500 (4-year avg) 2014 - 52,000 <u>Target:</u> 2015 - 51,000 2016 - 51,000 2017 - 50,000 2018 - 50,000
	➤ Proactively manage the potential impacts of climate change through adaptation of current systems.	
	➤ Support conservation of natural areas and wetlands.	



Goals	Strategic Directions	Performance Measurement
2. Citizens Well Served	<ul style="list-style-type: none"> <li>➤ Reduce the risk of flooding for private property and public spaces.</li> <li>➤ Increase customer satisfaction with drainage services and responsiveness.</li> <li>➤ Strengthen customer relations through communication, engagement and education by developing proactive programs.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Percentage of customers satisfied with Drainage Services  <u>Targets:</u>  Targets under development.</li> <li>➤ Percentage of emergencies responded to within 2 hours  <u>Actuals:</u>  2012 - N/A  2013 - N/A  2014 - N/A  <u>Target:</u>  2015 - 80.0%  2016 - 85.0%  2017 - 90.0%  2018 - 90.0%</li> <li>➤ Number of blocked mainline sewers per 100km length (five-year rolling average)  <u>Actuals:</u>  2012 - 2.7  2013 - 2.4  2014 - 2.3  <u>Target:</u>  2015 - 2.5  2016 - 2.5  2017 - 2.4  2018 - 2.4</li> <li>➤ Percentage of mature neighbourhoods at 1:100 level of service  <u>Actuals:</u>  2012 - 6.0%  2013 - 6.0%  2014 - 6.0%  <u>Target:</u>  2015 - 9.0%  2016 - 12.0%  2017 - 13.0%  2018 - 16.0%</li> </ul>

Goals	Strategic Directions	Performance Measurement
3. Supporting and Enhancing Growth and Development	<ul style="list-style-type: none"> <li>➤ Manage ongoing wastewater and stormwater servicing programs to ensure growth and development is well planned and coordinated.</li> <li>➤ Support densification and infill development through planning and implementation of system upgrading and/or green infrastructure.</li> <li>➤ Coordinate on industrial land development to support the City's prosperity goals.</li> <li>➤ Enhance servicing in a regional context by supporting planning for growth and coordination/harmonization of regional servicing.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Percent of Land Development Applications reviewed on time  <u>Actuals:</u>  2012 - 47.8%  2013 - 28.8%  2014 - 46.3%  <u>Target:</u>  2015 - 75.0%  2016 - 80.0%  2017 - 80.0%  2018 - 80.0%</li> <li>➤ Pipe Capacity Rating  <u>Targets:</u>  Targets under development.</li> </ul>

Goals	Strategic Directions	Performance Measurement
4. Sustainable Infrastructure	<ul style="list-style-type: none"> <li>➤ Proactive maintenance, rehabilitation and replacement of assets through increased monitoring, inspection and condition assessment.</li> <li>➤ Enhance the processes around data gathering, management, and application and link the data more effectively into the planning, design, construction, and maintenance phase.</li> <li>➤ Integrate an asset management philosophy into day-to-day activities to extend responsibility across Drainage Services.</li> <li>➤ Increase innovation to achieve more efficient and effective management of Drainage infrastructure.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Percentage of infrastructure at or above the minimum level of condition rating  <u>Actuals:</u>  2012 - 90.3%  2013 - 90.9%  2014 - 90.8%  <u>Target:</u>  2015 - 90.0%  2016 - 90.0%  2017 - 90.0%  2018 - 90.0% </li> <li>➤ Percentage capital (as rehabilitation) re-invested compared to total system replacement value  <u>Actuals:</u>  2012 - 0.32%  2013 - 0.29%  2014 - 0.35%  <u>Target:</u>  2015 - 0.47%  2016 - 0.58%  2017 - 0.70%  2018 - 0.81% </li> </ul>

Goals	Strategic Directions	Performance Measurement
5. Fiscal Responsibility	<ul style="list-style-type: none"> <li>➤ Ensure a fair and equitable rate structure that supports necessary Drainage Services Initiatives.</li> <li>➤ Operate in a manner that is financially sustainable.</li> <li>➤ Engage in transparent and efficient budgeting and reporting processes to provide clear and timely financial information.</li> <li>➤ Manage the process of funding the renewal of developer contributed assets.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Annual Net Income  <u>Actuals:</u>            2012 - \$36.8M            2013 - \$34.6M            2014 - \$50.4M  <u>Forecast:</u>            2015 - \$37.2M  <u>Targets:</u>            2016 - \$39.7M            2017 - \$38.1M            2018 - \$37.0M</li> <li>➤ Percentage Rate Increase  <u>Actuals:</u>            2012 - 23.3%            2013 - 7.5%            2014 - 7.8%  <u>Forecast:</u>            2015 - 3.2%  <u>Targets:</u>            2016 - 3.1%            2017 - 3.0%            2018 - 2.9%</li> <li>➤ Debt to Net Asset ratio  <u>Actuals:</u>            2012 - 56.0%            2013 - 55.0%            2014 - 53.0%  <u>Forecast:</u>            2015 - 56.0%  <u>Targets:</u>            2016 - 58.0%            2017 - 59.0%            2018 - 60.0%</li> <li>➤ Cash position  <u>Actuals:</u>            2012 - \$33.8M            2013 - \$47.8M            2014 - \$25.6M  <u>Forecast:</u>            2015 - \$32.8M  <u>Targets:</u>            2016 - \$45.2M            2017 - \$39.3M            2018 - \$40.6M</li> </ul>



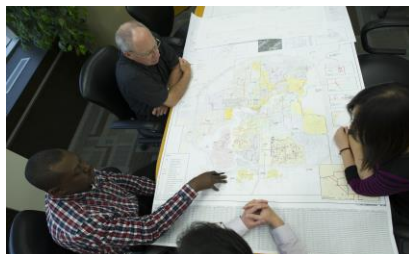
Goals	Strategic Directions	Performance Measurement
6. Organizational Excellence	<ul style="list-style-type: none"> <li>➤ Ensure Workforce sustainability through effective recruitment, training and retention.</li> <li>➤ Improve internal communication, coordination and collaboration within Drainage Services and between City departments.</li> <li>➤ Develop a culture to support a high performing organization.</li> <li>➤ Optimize equipment management and adopt new technology to support effective and efficient operations.</li> <li>➤ Enhance knowledge transfer within and across Drainage Services' functions.</li> <li>➤ Enhance knowledge transfer within and across Drainage Services' functions.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Employee Engagement Survey Score  <u>Actuals:</u>  2012 - 66.3%  2013 - 66.3%  2014 - 66.3%  <u>Target:</u>  2015 - 66.3%  2016 - 68.0%  2017 - 68.0%  2018 - 70.0% </li> <li>➤ Percentage turnover per 100 FTEs (excluding retirement)  <u>Actuals:</u>  2012 - 3.5%  2013 - 6.1%  2014 - 6.4%  <u>Targets:</u>  2015 - 6.0%  2016 - 6.0%  2017 - 6.0%  2018 - 6.0% </li> </ul>



## CULTURE IN THE WORKPLACE

The following table provides an overview of the Drainage Services Culture Action Plan. This plan was developed based on the results of the 2014 Employee Engagement and Diversity survey.

Culture Action Plan			
Issue to be Actioned	<ol style="list-style-type: none"> <li>1. Improve information sharing and communication so everyone can get information when it's needed.</li> <li>2. Improve employee's trust in Branch and Department Leadership team</li> <li>3. Improving supervisor feedback to employees</li> </ol>		
Desired Outcomes	<ol style="list-style-type: none"> <li>1. 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 Drainage Services.</li> <li>2. The work environment supports the sharing and collaboration of staff ideas with leadership and shared commitment to explore ideas.</li> <li>3. 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.</li> </ol>		
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	<input type="checkbox"/> Maintain or improve favourable responses from 2014



## RISK IDENTIFICATION

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

Risk Factors	Likelihood (1 to 5)	Impact (1 to 5)	Mitigation Strategy	Risk Owner
<b>Climate Change</b> - Particularly changes in rainfall patterns causing potential flooding.	5	5	<input type="checkbox"/> Develop long term flood mitigation strategy <input type="checkbox"/> Climate research and modelling <input type="checkbox"/> Maintain rain gauge network	Drainage Planning
<b>Aging Infrastructure</b> - Aging infrastructure, proactive vs. reactive asset management	4	4	<input type="checkbox"/> Develop holistic approach to integrated asset management	Branch Leadership
<b>Technology</b> - Not keeping up with technology changes; particularly with construction technology.	3	4	<input type="checkbox"/> Adopt new technology into our business (e.g. piloting new technology) <input type="checkbox"/> Adapt/react to changing technology (e.g. social media)	Branch Leadership
<b>Engaged Employees</b> - Aging workforce, knowledge transfer, recruitment and retention.	3	3	<input type="checkbox"/> Implementation of Culture Action Plan <input type="checkbox"/> Enhanced training and knowledge sharing <input type="checkbox"/> Development of standard processes and procedures <input type="checkbox"/> Succession planning and competency development	Branch Leadership
<b>Legal/Regulatory</b> - Non-compliance due to changes in legislation; stricter environmental enforcement.	2	4	<input type="checkbox"/> Ensuring due diligence in staying up to date and adjusting to any changing industry and environmental regulations (e.g. ENVISO). <input type="checkbox"/> Continuous improvement (e.g. Total Loadings Plan)	Branch Leadership
<b>Customer Expectations</b> - Not meeting customer expectations with regards to level of service received, and access to timely information.	3	2	<input type="checkbox"/> Effectively managing customer's expectations <input type="checkbox"/> Managing our budget to meet customer expectations <input type="checkbox"/> Proactive and timely communication.	Branch Leadership

## EMERGING ISSUES

### FLOOD MITIGATION

Historical severe storm events that have resulted in neighbourhood flooding has prompted Drainage Services 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 the impact quantified as concept plans are better known. In addition, this will also address how we can mitigate the potential risks associated with climate change.

### 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 2014, this budget utilized \$16.0 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.

#### Total Spent on Emergency Repairs (\$)

	2009	2010	2011	2012	2013	2014
Total Spent on Emergency Repairs	\$6,541M	\$6,969M	\$6,842M	\$8,478M	\$14,272M	\$16,037M



## CAPACITY IMPLEMENTATION PLAN

Drainage Services capital budget will see a significant increase over the next 10 years from \$171M in 2015 to \$279M in 2024. To manage this effectively, Drainage Services 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 Services 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.



# POSITIVE CHANGE INITIATIVES

Drainage Services has several Positive Change Initiatives that are under development, or underway. These initiatives will contribute towards City Council's 2% Innovation Savings.

- 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 Drainage Services 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 will complete 1-2 tunnel boring machine refurbishments annually achieving an annual cost savings of \$380,000 per tunnel boring machine, or approximately \$570,000 annually.
- Managing Engineering Drawings Review - Drainage Services 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 \$630,000. The potential of expanding this initiative to other areas of the City organization has also been identified and is being explored.
- Apart from these 3 major initiatives, there are other smaller continuous initiatives that will be implemented that will result in some minor cost savings/avoidance.

# FINANCIAL IMPACTS

The financial rate impacts of the 2016-2018 Drainage Services Business Plan is presented in the following tables and financial indicators. The supporting rate impacts reflect the services and processes needed to support the Utility's mission, values and strategic initiatives.

The financial rate impacts are also prepared in adherence to Drainage Services Utility Fiscal Policy (C304D). The Utility Fiscal Policy is focused on providing rate stability while ensuring the Utility has sufficient funds to meet ongoing capital, operating, and cash flow needs.

## RATE IMPACTS

The rate impacts as a result of the 2016-2018 Business Plan, as presented in the table below, are grouped into three categories (Operating Impacts, Capital Impacts, and Other Impacts).

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

	Forecast			
	2015	2016	2017	2018
<b>Operating Impacts</b>				
Operating & Maintenance	\$ 0.38	\$ 0.40	\$ 0.57	\$ 0.45
Biosolids Disposal	0.76	0.11	0.08	-
<b>Subtotal</b>	<b>\$ 1.14</b>	<b>\$ 0.51</b>	<b>\$ 0.65</b>	<b>\$ 0.45</b>
<b>Capital Impacts</b>				
Total Capital Program	\$ 0.97	\$ 1.45	\$ 1.95	\$ 1.76
<b>Subtotal</b>	<b>\$ 0.97</b>	<b>\$ 1.45</b>	<b>\$ 1.95</b>	<b>\$ 1.76</b>
<b>Other Impacts</b>				
Rate of Return	\$ (1.15)	\$ (1.00)	\$ (1.64)	\$ (1.25)
Local Access Fees	0.04	0.04	0.04	0.04
<b>Subtotal</b>	<b>\$ (1.11)</b>	<b>\$ (0.96)</b>	<b>\$ (1.60)</b>	<b>\$ (1.21)</b>
<b>Total Rate Impact</b>	<b>\$ 1.00</b>	<b>\$ 1.00</b>	<b>\$ 1.00</b>	<b>\$ 1.00</b>
<b>Current Rate</b>	<b>\$ 31.03</b>	<b>\$ 32.03</b>	<b>\$ 33.03</b>	<b>\$ 34.03</b>
<b>Proposed Rate</b>	<b>\$ 32.03</b>	<b>\$ 33.03</b>	<b>\$ 34.03</b>	<b>\$ 35.03</b>

## OPERATING IMPACTS

### Operating and Maintenance

Operating and Maintenance rate increases are primarily due to building internal capacity to deal with current and future increased demand for services associated with operating a larger drainage system as well as from increased development activities in the City. This is represented by requests for new FTE's resulting in a rate increase of \$0.40 in 2016, \$0.57 in 2017, and \$0.45 in 2018 for Planning, Design & Construction, Operations, and Strategic Services staff.

Please refer to the table below for a full listing of the new FTE's that have been requested as part of the 2016-2018 Business Plan.

### FTE Request (Full)

<b>FULL REQUEST</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>Total</b>
Planning	16.0	1.0	-	17.0
Design & Construction	10.0	4.0	2.0	16.0
Operations	16.0	5.0	10.0	31.0
Strategic Services	3.0	1.0	-	4.0
<b>TOTAL</b>	<b>45.0</b>	<b>11.0</b>	<b>12.0</b>	<b>68.0</b>

Many of the FTE's requested in the table above, however, will not result in a full rate impact as part of the Operating & Maintenance costs as a portion of the FTE's are recoverable through capital (Design & Construction and Operations) and developer fees (Planning). Please refer to the table below for a breakdown of the net FTE request included in the 2016-2018 Business Plan.

### FTE Request (Net of Recoverable)

<b>NET REQUEST</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>Total</b>
Planning	9.0	0.5	-	9.5
Design & Construction	-	-	-	-
Operations	14.5	5.0	10.0	29.5
Strategic Services	3.0	1.0	-	4.0
<b>TOTAL</b>	<b>26.5</b>	<b>6.5</b>	<b>10.0</b>	<b>43.0</b>

New additions are assumed to be hired on average by the end of the third quarter in the year of addition. As such only 25% of an employee's full year salary will be incurred in the year of addition and 100% will be incurred in the following year and beyond. The personnel costs also assume a 6% vacancy rate. Both of these personnel assumptions reflect on average the difficulty in hiring skilled positions within the Utility.

Further support for the increase in FTE's will be provided through business cases that will be prepared and presented as part of the 2016-2018 Drainage Services Utility Budget.



### **Biosolids Disposal**

Biosolids Disposal rate increases 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 Waste Management Services), the Nutrigold Program (administered by Waste Management Services), and beneficial reuse options in land application uses (external providers).

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 forecasted to be achieved by 2029.

To support this long-term plan, additional dewatering capacity is required to meet the proposed biosolids disposal targets. To address this issue an Enhanced Biosolids Dewatering Facility, approved at the March 14, 2013 Utility Committee Meeting, has now been put into service as of May 2015.

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

### **CAPITAL IMPACTS**

The rate impacts related to capital expenditures are primarily the result of increased capital investment in key infrastructure in the Drainage Neighbourhood Renewal, Drainage System Rehabilitation, and Flood Mitigation programs. The 2016-2018 Business Plan also incorporates the beginning of the 10 Year Expanded Neighbourhood Flood Mitigation Program.

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

Further details surrounding the Utility's capital needs and rate impacts will be presented as part of the 2016-2018 Drainage Services Utility Budget.

### **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 Utility's long-term objectives.

#### **Local Access Fees**

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

## FINANCIAL INDICATORS

The Financial Indicators for the 2016-2018 Business Plan are presented in the table below. As shown below, based on current forecasts, the Utility is able to incorporate all the rate impacts listed above while maintaining a stable combined rate increase of \$1.00 (average 3% rate increase) each year for the typical ratepayer (per month). In addition, the 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.

### Financial Indicators

	Forecast			
	2015	2016	2017	2018
<b>FINANCIAL INDICATORS</b>				
<b>1 Rate Sufficient to Meet Expenses</b>				
<b>Net Income</b>				
Sanitary	17,803	17,045	15,635	15,106
Stormwater	19,489	22,739	22,541	21,876
<b>Target: Positive Net Income</b>				
<b>Cash Position (Combined)</b>				
Target (Next Year's Capital Financed by Pay As You Go)	24,789	39,523	29,778	33,147
<b>Uncommitted Cash Position</b>	<b>32,819</b>	<b>45,211</b>	<b>39,345</b>	<b>40,602</b>
<b>Risk Allowance</b>	<b>8,030</b>	<b>5,688</b>	<b>9,567</b>	<b>7,455</b>
<b>Target: Cash position greater than the total Pay as You Go required.</b>				
<b>Rate Increase</b>				
Sanitary				
<b>Typical Residential Monthly Billing Increase</b>	<b>\$ 0.50</b>	<b>\$ 0.50</b>	<b>\$ 0.50</b>	<b>\$ 0.50</b>
Impact of Customer Rate	2.3%	2.2%	2.2%	2.1%
Stormwater				
<b>Typical Residential Monthly Billing Increase</b>	<b>\$ 0.50</b>	<b>\$ 0.50</b>	<b>\$ 0.50</b>	<b>\$ 0.50</b>
Impact of Customer Rate	5.4%	5.1%	4.9%	4.7%
Combined				
<b>Typical Residential Monthly Billing Increase</b>	<b>\$ 1.00</b>	<b>\$ 1.00</b>	<b>\$ 1.00</b>	<b>\$ 1.00</b>
Impact of Customer Rate	3.2%	3.1%	3.0%	2.9%
<b>Target: Stable, consistent rate increases</b>				
<b>2 Debt Financing of Capital (Combined)</b>				
Debt to Net Assets Ratio	56%	58%	59%	60%
<b>Target: Between 50%- 70%; balancing cash availability, interest rates, and construction inflation.</b>				

## CONCLUSION

The financial information presented above represents a preliminary look at the strategic plan for the Utility. Directions received from the Utility Committee as well as further analysis through the Drainage Capacity Implementation Plan will be incorporated into the preparation of the 2016-2018 Drainage Services Utility Budget to be presented in October 2015.

## FURTHER INFORMATION

Visit our website:  
[www.edmonton.ca/drainage](http://www.edmonton.ca/drainage)

*Inquiries may also be directed to:*

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