



# 2017 Progress Report

Drainage Services

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## Table of Contents

<b>1</b>	<b>INTRODUCTION.....</b>	<b>2</b>
<b>2</b>	<b>CUSTOMERS AND CONSUMPTION .....</b>	<b>3</b>
<b>3</b>	<b>FINANCIAL PERFORMANCE.....</b>	<b>4</b>
3.1	ACCOUNTING STANDARDS .....	4
3.2	REVENUE.....	5
3.3	OPERATING EXPENSES BY COST CATEGORY .....	6
3.4	NET INCOME .....	7
<b>4</b>	<b>CAPITAL PROGRAMS .....</b>	<b>8</b>
4.1	CAPITAL EXPENDITURES .....	8
<b>5</b>	<b>OPERATIONAL PERFORMANCE .....</b>	<b>11</b>
5.1	WATER QUALITY AND ENVIRONMENTAL INDEX.....	11
5.2	CUSTOMER SERVICE INDEX.....	12
5.3	RELIABILITY & OPTIMIZATION INDEX .....	13
5.4	SAFETY INDEX .....	14
<b>6</b>	<b>RATES AND BILL COMPARISONS .....</b>	<b>15</b>
<b>APPENDIX A: PBR PLAN 2017-2021.....</b>		<b>16</b>
A.1	PBR FRAMEWORK.....	16
A.2	DRAINAGE RATES.....	17
A.2.1	<i>Sanitary Utility .....</i>	<i>17</i>
A.2.2	<i>Stormwater Utility .....</i>	<i>17</i>

# 1 Introduction

This report provides an annual update to the City of Edmonton on the operational and financial results for the year ended December 31, 2017 for Drainage Services ("Drainage") provided within Edmonton by EPCOR Water Services Inc. ("EWSI"). These services are regulated by the City of Edmonton City Council in accordance with the previous City of Edmonton Drainage Bylaw 16200 under an interim agreement until such time as a new EPCOR Drainage Bylaw is approved. A new EPCOR Drainage Bylaw 18100 has been established, and effective starting January 1, 2018.

Due to the transition of Drainage from the City of Edmonton to EPCOR on Sept 1, 2017, this 2017 Progress Report presents annual information for a period over which Drainage was under two separate organizations under different business models and utilizing different accounting standards. The differences in accounting standards impact the ability to provide a direct comparison of costs and revenues under each reporting standard. Where possible, explanations are included to explain the differences in accounting standards and how those differences impact the presentation of 2017 results. This issue will resolve itself in future reports.

## 2 Customers and Consumption

Drainage provides services to three customer classes: Residential, Multi-Residential, and Non-Residential. These classes are unchanged from the previous City of Edmonton Drainage Rate Filings. Customer counts, total annual consumption and monthly consumption per customer are shown in Table 2.1 below:

**Table 2.1**  
**Customers, Consumption and Consumption per Customer**

		A
Customers and Consumption		2017
		Actual
1	<b>Sanitary Utility</b>	
2	Customers (Average Active Services per Month)	
3	Residential	259,237
4	Multi-Residential	3,752
5	Non-Residential	16,627
6	Total	279,615
7	<b>Stormwater Utility</b>	
8	Customers (Average Billed Services per Month) <sup>1</sup>	
9	Residential	247,460
10	Multi-Residential	3,573
11	Non-Residential	14,724
12	Total	265,757
13	<b>Annual Consumption (ML)</b>	
14	Residential	45,427
15	Multi-Residential	23,826
16	Non-Residential	17,816
17	Total	87,070
18	<b>Monthly Consumption per Customer (m<sup>3</sup> per month)</b>	
19	Residential	14.6
20	Multi-Residential	395.7
21	Non-Residential	119.4

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<sup>1</sup> Stormwater Utility customer counts are based on billed monthly service counts. The monthly counts fluctuate from month to month due to billing cycles and can cause the yearly average customer count to be lower than if it calculated based on active monthly service counts. Active service counts will be used in future reporting.

## 3 Financial Performance

### 3.1 Accounting Standards

The 2017 Drainage Progress Report presents financials from an accounting perspective rather than from a regulatory or revenue requirement perspective.

Drainage Services followed the Public Sector Accounting Standards (PSAS) as part of the City of Edmonton published financial statements. Transitioning Drainage to EPCOR's financial records of EPCOR included the adoption of International Financial Reporting Standards (IFRS). EPCOR uses IFRS which is the applicable generally accepted accounting standard for public companies. Areas where the different standard resulted in an adjustment include:

- Under IFRS, contributions are shown as deferred revenue on the balance sheet and amortized to revenue. \$11.7 million was removed from line 15 of Table 3.1 Other Services Revenue. This amount is included in line 2 of Table 3.3 Revenue(amortization of contributions). Under IFRS these contributions are shown gross on the balance sheet and are not netted against the applicable asset. Under PSAS, these contributions were included in equity.
- Under IFRS, contributions to Sanitary Servicing Strategy Fund (SSSF) are netted against the applicable PP&E and amortized over time to the income statement. For PSAS, payments to the SSSF were expensed.
- Under IFRS, deposits are reclassified to deferred revenues on the balance sheet and amortized to revenue as services are provided. Under PSAS, deposits were shown as a liability on the balance sheet and recognized as revenue as services were provided.
- Under IFRS, depreciation and amortization on Property, Plant and Equipment (PP&E) was calculated in a different manner than PSAS. Certain asset groups were reclassified and componentized.
- Under IFRS, research or pre-conceptual study costs are not capitalized as a specific alternative has not yet been chosen and cannot yet be linked to future benefits. Under PSAS, more study costs, research costs, pre-conceptual study costs and pilot project costs are left on the balance sheet and amortized over a straight-line period without being linked to future benefits.
- Under IFRS, intangible assets are recorded for customer rights and rights of use on the balance sheet and amortized to income over the period of usage or right. For PSAS, intangibles are not capitalized but were directly expensed.
- Under IFRS, Interest During Construction (IDC) is capitalized to assets which are being constructed for a period of longer than six months. PSAS does not record IDC and all interest flows through the income statement.

As a result of all of the above changes, the IFRS statements from an income statement and balance sheet perspective no longer are useful from a regulatory perspective. The PSAS financial statements more readily resembled a rate base view.

EPCOR had focused on the IFRS books as a requirement for public reporting and funding. In 2019 Drainage will provide financial reporting on a regulated basis that is generally aligned to what EPCOR Water and Wastewater reports in their Progress report. Conversion to IFRS took approximately six months and we anticipate preparing a regulatory set of books will require a similar time frame with significant resources.

The information presented in the sections below provides the financial results achieved for the entire year, four months as EPCOR and eight months as City.

## 3.2 Revenue

Drainage Services regulated rate revenues include sanitary services which vary by customer type, fixed charges based on meter size and consumption. Stormwater services regulated rate revenues vary by customer type, area of premise, development intensity factor and zoning. Other revenues include regulatory services, application fees, wastewater transfer station services and miscellaneous fees through third party agreements.

**Table 3.1**  
**Drainage Revenue**  
**(\$ millions)**

		A	B	C
Drainage Revenue		2017 Actuals		
		PSAS COE Jan-Aug	IFRS EPCOR Sept-Dec	Total
1	<b>Sanitary Utility</b>			
2	Residential	48.7	24.2	72.9
3	Multi-Residential	12.6	6.6	19.2
4	Non-Residential	18.1	9.2	27.3
5	Sub-total	79.4	40.0	119.4
6				
7	<b>Stormwater Utility</b>			
8	Residential	21.0	10.8	31.8
9	Multi-Residential	2.5	1.2	3.7
10	Non-Residential	15.5	8.0	23.5
11	Sub-total	39.0	20.0	59.0
12				
13	Total Revenue (Rate) <sup>1</sup>	118.4	60.0	178.4
14				
15	Other Services Revenue <sup>2</sup>	6.6	3.3	9.9
16	<b>Total Drainage Revenue</b>	<b>125.0</b>	<b>63.3</b>	<b>188.3</b>

Total Drainage revenue is comprised of:

1. Drainage Revenue (Rate) incorporates a 3% rate increase that was implemented in January 2017 and increased average consumption (see Table 2.1) as the City / customer base continues to grow.
2. Other Revenue is composed of fees from services such as Regulatory Services, Operational Services, External Projects and Investment Income.

### 3.3 Operating Expenses by Cost Category

The operating expenses by cost category are illustrated below in Table 3.2 and tie to line 3 in Table 3.3.

**Table 3.2**  
**Operating Expenses by Cost Category**  
**(\$ millions)**

		A	B	C
Cost Categories		2017 Actuals		
		PSAS COE Jan- Aug	IFRS EPCOR Sept- Dec	Total
1	<b>Drainage Services</b>			
2	Salaries, benefits, shared services and contractors <sup>1</sup>	39.2	22.0	61.2
3	Customer billing	4.1	2.0	6.1
4	Biosolids disposal <sup>2</sup>	8.7	2.1	10.8
5	Materials and supplies	5.8	2.2	8.0
6	Other <sup>3</sup>	1.0	2.9	3.9
7	Franchise Fees	6.1	3.0	9.1
8				
9	<b>Total Drainage Services</b>	<b>64.9</b>	<b>34.2</b>	<b>99.1</b>

Notes regarding Table 3.2:

1. Salaries, benefits, shared services and contractors include costs that are purchased through contractors or performed through the salaries and benefits of employees. Under the City, shared service costs appear to include \$3.3 million of other costs.
2. Under EPCOR, biosolids processing volumes and costs decreased due to processing issues.
3. EPCOR's other costs also includes \$4.0 million in one-time transition costs associated with the September 1<sup>st</sup> transfer of Drainage. For comparison purposes, the transition costs have not been included in Table 3.2.

### 3.4 Net Income

Drainage's net income for the twelve month period ended December 31, 2017 is \$34.2 million. Table 3.3 illustrates the results achieved for the entire year, four months as EPCOR and eight months as City.

**Table 3.3**  
**Net Income**  
**(\$ millions)**

		A	B	C
Net Income		2017 Actuals		
		PSAS COE Jan-Aug	IFRS EPCOR Sept-Dec	Total
1	Revenue (rate)	125.0	63.3	188.3
2	Revenue (amortization of contributions) <sup>1</sup>	0.0	11.7	11.7
3	Operating expenses <sup>2</sup>	(64.9)	(34.2)	(99.1)
4	Depreciation and amortization <sup>3</sup>	(22.1)	(24.1)	(46.2)
5	Interest	(13.6)	(6.9)	(20.5)
6	Net Income	24.4	9.8	34.2

There are several sources for the financial results in Table 3.3 Financial Performance. These numbers are comprised of:

1. The "2017 Actuals PSAS COE Jan – Aug" columns are the results Drainage achieved prior to transfer. These numbers are from the "Financial Statements of Drainage Utility of the City of Edmonton Eight Months Ended August 31, 2017 Unaudited", which were obtained from the City of Edmonton.
2. Operating expenses do not include \$4 million in one-time transition costs associated with the September 1<sup>st</sup> transfer of Drainage.
3. The "2017 Actuals IFRS EPCOR Sept – Dec" columns are the results Drainage achieved post transfer beginning September 1, 2017. These numbers are in compliance with IFRS and audited as part of the Consolidated Statements of EPCOR Utilities Inc.



## 4 Capital Programs

The Drainage Services capital program is based on the drainage utility's long term plan that was used as the part of the independent third party report assessing the transition of the Utility to EPCOR (Grant Thornton report CR\_8300). The EPCOR Drainage Services capital program for the PBR 2018 to 2022 term is projected to be \$866.3M and will include over 200 projects in 6 major project categories. Over the course of the PBR term, changes to the capital program may be required in response to changes in regulatory or operational requirements, customer demands or other unforeseen circumstances. These changes are coordinated through EPCOR Drainage Services Project Management Office and are reviewed and approved by EPCOR Drainage Services Capital Project Steering Committee, EPCOR's Financial Review Council, or EPCOR's Board of Directors, depending on the significance of the change. Changes will be reported to Utility Committee through the Operational Plan (presented annually in Q1 for the upcoming year) the Annual Progress Report (presented annually in Q2 for the proceeding year), and the Mid-Year update for the Operational Plan (presented at the start of Q3 annually for the current year)

### 4.1 Capital Expenditures

Table 4.1 shows the actual capital expenditures for -2017 for each project category. Table 4.1 also provides a comparison of total 2018-2021 capital expenditures identified in the drainage utilities long term plan to EPCOR Drainage Services current capital forecast. Explanations for differences between drainage utilities Long term plan capital expenditures and EPCOR Drainage Services current projection by project categories are provided below the table.

**Table 4.1**  
**Capital Expenditures**  
**(\$ millions)**

		A	B	C	D	E	
	Project Category	2017 January 1 – August 31	2017 September 1 – December 31	2017 Total	2018 Budget	2018-2021	
						Long Term Plan	Current Projection
1	Drainage System Rehabilitation	21.2	11.4	32.6	59.6	119.2	196.8
2	Drainage Neighbourhood Renewal	18.4	12.1	30.5	15.0	175.8	132.3
3	Environmental Quality Enhancement	0.3	2.2	2.5	15.5	100.8	62.3
4	Flood Mitigation	19.6	9.1	28.7	33.6	247.5	247.5
5	Drainage System Expansion	14.4	15.0	29.4	18.9	84.2	84.2
6	Sanitary Service Strategy	8.4	6.1	14.5	28.1	137.8	143.2
7	<b>Capital Expenditures (before contributions) <sup>1</sup></b>	<b>82.3</b>	<b>55.9</b>	<b>138.2</b>	<b>170.7</b>	<b>865.3</b>	<b>866.3</b>
8	Sanitary Service Strategy Fund	(6.8)	(6.1)	(12.9)	(28.1)	(137.8)	(143.2)
9	Drainage System Expansion	(5.8)	(1.4)	(7.2)	(8.9)	(60.1)	(35.2)
10	Flood Mitigation	(2.0)	0.0	(2.0)	(6.9)	0.0	(20.5)
11	<b>Sub Total</b>	<b>(14.6)</b>	<b>(7.5)</b>	<b>(22.1)</b>	<b>(43.9)</b>	<b>(197.9)</b>	<b>(198.9)</b>
12	<b>Capital Expenditures (Net of Contributions) <sup>2</sup></b>	<b>67.7</b>	<b>48.4</b>	<b>116.1</b>	<b>126.8</b>	<b>667.4</b>	<b>667.4</b>

<sup>1</sup> "Capital Expenditures (before contributions)" includes total capital work performed by EPCOR Drainage Services for the given period.

<sup>2</sup> "Capital Expenditures (Net of Contributions)" is the total capital work performed by EPCOR Drainage Services which is included in the rate base.

The Drainage Utility Long Term Plan to EPCOR Drainage Services Current Projection differences by project category for the period 2018-2021 are as follows:

1. **Drainage System Rehabilitation** – \$77.6m greater than the drainage utility long term plan. EPCOR has identified that the drainage system rehabilitation capital expenditures projected in the drainage utility long term plan are lower than expected and additional expenditures are required in the period 2018-2021 to mitigate the risk of failure and to maintain levels of service. This category includes all rehabilitation required to address asset condition. The increase of \$30 million in 2018 is primarily due to the required rehabilitation of the Groat Road Stormwater Trunk with a forecast total project cost of \$41.7 million.
2. **Drainage Neighbourhood Renewal** – \$43.5 million less than the drainage utility long term plan. This category includes the costs of neighbourhood drainage asset renewal to align with the City of Edmonton's Building Great Neighbourhoods program. The lower projected costs are as a result of accelerated work completed in the 2015-2017 period and timing of capital expenditures. The drainage neighbourhood renewal program will continue to align with the City of Edmonton's current program.
3. **Environmental Quality Enhancements** –\$38.5 million less than the drainage utility long term plan. This category includes capital expenditures that mitigate the impact of the drainage system on the environment such as combined sewer overflows, loading to the river, and beneficial reuse of biosolids. The projected capital expenditures will continue to achieve all environmental requirements and commitments of the drainage utility.
4. **Flood Mitigation** – no change
5. **Drainage System Expansion** – No change. This program includes growth driven projects such as developer built assets, service connections and downtown intensification projects funded by a Community Revitalisation levy.
6. **Sanitary Service Strategy** - \$5.4 million greater than the drainage utility long term plan. This work is contributed to the Utility. The increase is due to timing of expenditures on large multi-year projects.

## 5 Operational Performance

Drainage Services' performance is measured by the results of four indices prescribed in Bylaw 18100. Due to the recent transfer of Drainage to EPCOR, the Drainage Performance metrics indices are not yet set up with a scoring system. The metrics that are currently identified in Bylaw 18100 have been patterned after previous Drainage Utility service quality metrics. As stated in Bylaw 18100, Drainage Services will report on these metrics until December 31, 2019, after which new performance metrics with a scoring system will be defined for the remainder of the 2017-2021 PBR period. The metrics presented below are all based on 12 months (8 months of City data, and 4 months of EPCOR data) of data unless otherwise stated.

### 5.1 Water Quality and Environmental Index

**Table 5.1**  
**Water Quality and Environmental Index**

Index Component	PBR Performance Measure	2017 Actual	2017 Target
1. Edmonton Watershed Contaminant Reduction Index Score	Index score that measures contaminants released to the North Saskatchewan River from the City of Edmonton.	7.2	6.8
2. Total Loading – Total Suspended Solids	Total suspended solids loading (Kg/Yr) contributed to the North Saskatchewan River from the storm sewer system, combined sewer system, and Gold Bar Wastewater Treatment Plant. Based on a 5 year average.	51,618	50,000

#### 2017 Highlights

1. The Edmonton Watershed Contaminant Reduction Index Score exceeded its 2017 target. An increase in the index is good and means less contaminants were released into the river. It is anticipated that the trend of the index will continue to go upward.
2. 2017 experienced below average combined sewer overflow. This was a result of the lack of extreme rainfall which contributed to the lower loading in 2017. 2017 alone (non-averaged) had a TSS loading of 48,994 kg/d. The results reported in Table 5.1 are based on a 5 year average. The River for Life and Discharge Improvement Zone programs, as well as the CSO Control Strategy will contribute to continuous improvement toward meeting our targets.

## 5.2 Customer Service Index

**Table 5.2**  
**Customer Service Index**

Index Component	PBR Performance Measure	2017 Actual	2017 Target
1. Emergencies Responded to Within 2 Hours	Measures the efficiency in responding to customer reports or complaints that require an emergency response. The emergency repair crew is given 2 hours to respond and be on site from the time the report is received.	N/A	87%
2. Number of Blocked Mainline Sewers	Measures the number of blockages in the mainline per 100km of pipe.	1.0	2.3
3. Mature Neighbourhoods at 1:100 Service Level	Measures the percentage of neighbourhoods that are protected against a 100 year storm flood out of the 157 identified at-risk mature neighbourhoods.	14.3%	13.0%
4. Odour Complaints	Measures the number of odour complaint received from customers.	647	Reduction from previous year

### 2017 Highlights

1. Data will not be available for this metric until 2019.
2. The number of blocked mainline sewers metric exceeded its target in 2017. As we identify PBR metrics for 2020, we will consider a new metric with an intent to improve/enhance customer service.
3. The percent of mature neighbourhoods at a 1:100 service level metric is 1.3% higher than target, this is due to 2 projects in Millwood (Ekota and Minnisa) being completed earlier than planned.
4. The number of odour complaints have decreased in 2017 over 2016. Currently, the data include all general odour complaints and not all the complaints are attributed to sewer odour. Odour issues will continued to be managed through the Odour Mitigation Strategy that is being developed.

## 5.3 Reliability & Optimization Index

**Table 5.3**  
**Reliability & Optimization Index**

Index Component		PBR Performance Measure	2017 Actual	2017 Target
1.	Pipe Capacity Rating – Sanitary	Percentage of linear infrastructure assessed as having a hydraulic condition rating of 2 (or B) or better. Measured separately for sanitary, storm, and combined sewer infrastructure.	96.0%	96.0%
	Pipe Capacity Rating – Storm		50.0%	50.0%
	Pipe Capacity Rating – Combined Sewer		80.0%	80.0%
2.	Infrastructure at or Above Minimum Level of Condition Rating	Percentage of all infrastructure (including non-linear) assessed as being at or above the minimum level of condition rating.	90.0%	90.0%
3.	Capital (as rehabilitation) Re-invested Compared to Total System Replacement	Measures the percentage of investment dollars spent on renewal/rehabilitation work on aging drainage infrastructure compared to the total system replacement value.	0.33%	0.70%

### 2017 Highlights

- The pipe capacity for sanitary, stormwater and combined sewers have met targets for all three categories.
- The percentage of all infrastructure assessed as being at or above the minimum level of condition rating has met the 2017 target.
- The percentage of capital reinvested compared to the total system replacement value is 0.44% below target. The 2017 results only account for the rehabilitation of existing infrastructure and do not include system upgrades.

## 5.4 Safety Index

**Table 5.4**  
**Safety Index**

Index Component	Performance Measure	2017 Actual	2017 Target
1. Employee Engagement (survey every 2 years)	Measures the level of employee engagement within Drainage Services as a percentage.	N/A	N/A
2. Employee Turnover (excluding retirements)	Measures the percentage of employees leaving Drainage Services compared to the overall headcount. Excludes retirements. Includes voluntary, involuntary, and transfers to other business areas.	1.4%	6.0%
3. Lost Time Frequency Factor	Refers to the number of lost time injuries resulting from a workplace injury related to the total number of hours worked (200,000 hr) in a specific time period.	0.61	0.50

### 2017 Highlights

1. There are no Employee engagement results as the survey is only conducted once every 2 years and a survey was not conducted in 2017. EPCOR will be conducting an Engagement Survey in 2018.
2. The 2017 result is an annualized number based on four months (Sept-Dec) of EPCOR data; it does not capture the first eight months of 2017 which may have included transfers from Drainage to another business area within the City, or voluntary and involuntary turnover. The target of 6.0% assumed the inclusion of transfers from Drainage to another business area within the City, as well as voluntary and involuntary turnover.
3. The Lost Time Frequency Factor metric did not meet target. The 2017 results represents a blended calculation based on eight months (Jan-Aug) of City data and four months (Sept-Dec) of EPCOR data.

## 6 Rates and Bill Comparisons

Drainage Services provides fair value to customers at competitive rates. External bill comparisons are included in Section 3.6 in the Water and Wastewater 2017 PBR Progress Report for Drainage and Wastewater bill comparisons. The data for water and waste water services is presented together because this is how most other organizations collect and present this information.



# Appendix A: PBR Plan 2017-2021

## A.1 PBR Framework

Drainage rates for the 2018-2021 PBR term are regulated by the PBR Plan approved in the EPCOR Drainage Services Bylaw 18100. Bylaw 18100 was approved and effective as of Jan 1, 2018. For the period of Sept 1 – Dec 31, 2017, as outlined in Section 5 in the Letter of Intent Between the City of Edmonton and EPCOR:

*“Customer rate and charges and the terms and conditions of services for the Drainage Utility are currently outlined in City Bylaw 16200, Drainage Bylaw. EPCOR will operate the Drainage Utility in accordance with this Bylaw under an interim agreement (the “Interim Regulatory Framework Agreement”) until such time as a new EPCOR Drainage Bylaw is approved.”*

The 2018-2021 PBR plan encompasses rates and performance measures. The relationships between these components ensure that capital and operating cost decisions provide a balance between operational performance and rates, while safeguarding system reliability and service quality, providing fair, stable, predictable rates to rate payers, and providing a basis for the future development of the drainage system.

- **PBR Rates.** The Letter of Intent between the City of Edmonton and EPCOR establishes that drainage fees and charges will be adjusted on an annual basis, for the period of January 1, 2018 to March 31, 2022 and will reflect EPCOR’s commitment to hold the average annual rate increase over this period to 3%, based on a blended rate between the Sanitary and Stormwater utilities. There will also be a mechanism to allow for non-routine adjustments related to emergent City directed needs (e.g. flood mitigation).
- **Performance Measures.** Drainage’s PBR framework includes performance measures for drainage system service quality. The metrics that are currently identified in Bylaw 18100 have been patterned after previous Drainage Utility service quality metrics. As stated in Bylaw 18100, Drainage Services will report on these metrics until December 31, 2019. New performance metrics with a scoring system will be defined for the remainder of the 2018-2021 PBR period. For the purpose of this Progress Report, we have included the metrics as outlined in Bylaw 18100 and have reported the 2017 results in Section 5.

As outlined in Schedule 3, Section 6.3 of Bylaw 18100, for the period of Jan 1, 2018 – Dec 31, 2019 Drainage will report on the service quality measure for the purpose of tracking and reporting on performance, but will not face any financial penalties. For the period of 2020-2021, Drainage will face financial penalties if it does not meet or exceed performance measure standards, providing assurance to customers that drainage service quality will not be sacrificed to keep rates low or increase returns. When new metrics are in place in 2020,

Drainage's performance measures will be audited annually by an independent accounting firm. The performance measure results, together with Drainage's commentary on highlights and areas for improvements are shown in Section 5.

## A.2 Drainage Rates

### A.2.1 Sanitary Utility

Drainage's Sanitary Utility rates are calculated based upon:

1. A flat monthly service charge based upon meter size for the property.
2. A variable monthly charge applied to each cubic metre of water consumed and discharged to the sewer system.

The three main customer classes are residential, multi-residential, and non-residential.

### A.2.2 Stormwater Utility

Drainage's Stormwater rates are calculated based upon:

1. Area of premise (m<sup>2</sup>); and the proportion of the lot area attributable to each unit for multiple units that share a lot
2. Development Intensity Factor; this is assumed to be 1.0 except for properties that have demonstrated that they contribute significantly less stormwater per m<sup>2</sup> to the city's sewer system during rainfalls than other comparable properties.
3. Runoff coefficient that is based on the zoning of the property. For example, a single family house (RF1 zoning) typically has a runoff coefficient of 0.50
4. Rate

Stormwater Utility charges are calculated as:

$$\text{Area} \times \text{Intensity Factor} \times \text{Runoff Coefficient} \times \text{Rate}$$

The three main customer classes are residential, multi-residential and non-residential.