



EPCOR Water Services

2025-2027 Wastewater Services Performance Based Regulation Compliance Filing

December 13, 2024

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The following sections include a summary of the Utility Committee's motions issued on October 11, 2024 and EWS' explanations of how it has addressed the Utility Committee's directions outlined in the revised Attachment 9 of the October 11, 2024, Financial and Corporate Services report FCS02677. In addition, a summary of the revised revenue requirements for the 2025-2027 PBR term along with the revised average customer bill impacts for the 2025-2027 PBR term are provided below.

1.0 Utility Committee Motions

On October 11, 2024, the City of Edmonton Utility Committee passed the following three motions:

1. That the proposed 2025-2027 Wastewater Performance Based Regulation application be adjusted for recommendations in Attachment 9, as amended, of the October 11, 2024, Financial and Corporate Services report FCS02677, prior to City Council approval of Wastewater rates effective April 1, 2025.
2. That Administration work with EPCOR to develop a workplan that supports the implementation of the recommendations in Attachment 10 of the October 11, 2024, Financial and Corporate Services report FCS02677, including recommendations from the Utility Advisor.
3. That, subsequent to the submission of the workplan referred to in part 2, that EPCOR incorporate the recommendations in Attachment 10 of the October 11, 2024, Financial and Corporate Services report FCS02677 into the next Wastewater Performance Based Regulation application.

EWS has updated the EPCOR Wastewater Services Bylaw 20865 and the corresponding financial schedules in accordance with the first motion issued by the Utility Committee, specifically addressing the recommendations outlined in the revised Attachment 9 of the October 11, 2024, Financial and Corporate Services report FCS02677.

EWS will collaborate with City Administration in 2025 to develop the workplan identified in the second motion and will submit the workplan for Utility Committee approval. Based on the approval of the workplan, EWS will then incorporate the applicable recommendations in its consolidated Performance Based Regulation application to address the third motion.

The following sections summarize how EWS has addressed each of the directions outlined in the revised attachment 9 of the October 11, 2024, Financial and Corporate Services report FCS02677.

1.1 Depreciation

Utility Committee Direction per Attachment 9: *That EWSI employ historical depreciation rates for the purpose of the rate filing.*

In accordance with the Utility Committee motion, EWS has applied the historical depreciation rates for determining Wastewater Collection and Wastewater Treatment rates for the 2025-2027 PBR term. Refer to revisions in Financial Schedules 12-2-1 and 12-2-2 and Bylaw 20865, Schedule 1, Parts I, II and IV, and Schedule 3, Section 2.3.

1.2 Capitalization of Software Costs

Utility Committee Direction per Attachment 9: *EWSI prepare a business case to support its collective program of individual investments, totaling \$13.3 million, in Software as a Service (SaaS) projects across the PBR term given that the collective expenditure is above the established threshold for requiring a business case as well as the unique circumstance surrounding these projects.*

As committed by EWS at the October 11, 2024 Utility Committee meeting, EWS has provided an aggregated list of cloud-based software projects that are included as capital expenditures for the 2025-2027 PBR term (Attachment 5 to this Compliance Application). All of the included projects are too small to warrant individual business cases; however, EWS has provided additional information pertaining to the various cloud-based projects and the rationale for selecting a cloud-based solution.

1.3 Customer Consumption Forecasts

Utility Committee Direction per Attachment 9: *EWSI use a reduction of consumption rate of 1.3% in 2024, unless a replacement rate can be offered in the compliance filing, which is less than 3.8%.*

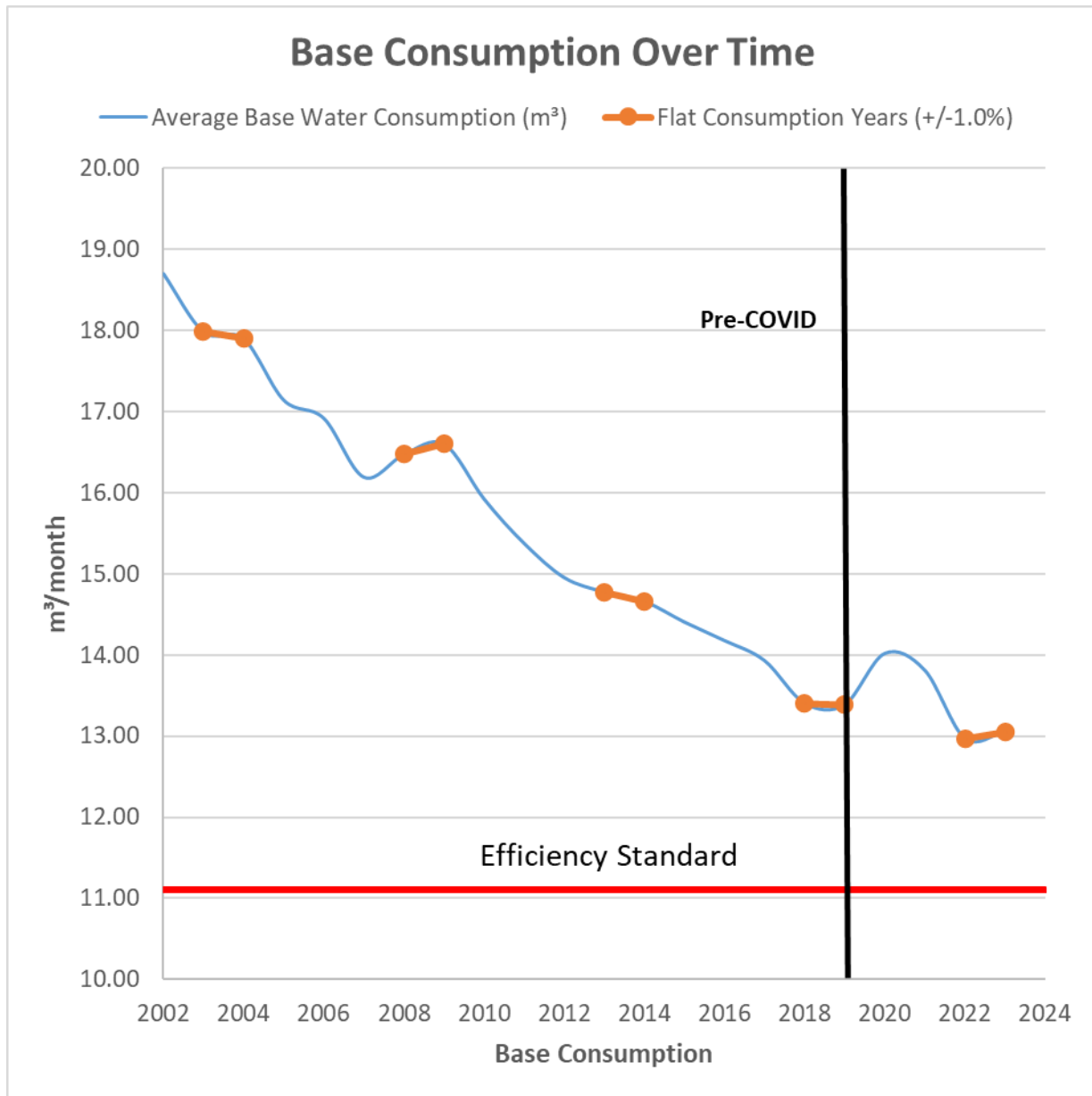
In accordance with the Utility Committee motion, EWS has adjusted the 2023 to 2024 decline in forecast consumption per residential customer from 3.8% to 2.4% and has revised variable rates for wastewater treatment and sanitary wastewater collection to reflect this adjustment. The adjustment to forecast consumption per residential customer results from an increase in forecast seasonal (outdoor) water consumption from 0.8 m³ to 1.0 m³ per customer to reflect the recent 3-year average seasonal consumption, rather than the 5-year average seasonal consumption used in the 2025 – 2027 Wastewater PBR Application. EWS also met with City Administration to explain its rationale for the adjusted 2023 to 2024 decline in forecast

consumption per residential customer from 3.8% to 2.4%, which was accepted as reasonable by City Administration.

EWS has not adjusted its base (indoor) consumption forecast for residential customers. EWS' disaggregated consumption forecast methodology is informed by extensive research and, except for the years significantly impacted by COVID-19, has proven to be accurate since its implementation in 2017. This robust geography-based forecasting approach includes separating Edmonton neighbourhoods into five categories (core, mature, established, developing and planned) based on the average year of home construction/renovation for each area of the City. These categories account for differences in the use of water-efficient fixtures and appliances, as well as the average household size (number of people).

As Chart 1.3-1 shows, EWS has experienced a steady and consistent decline in average base (indoor) consumption per customer for over two decades. Years of relatively flat base consumption occur from time to time (i.e. 2004, 2009, etc.), but have not been indicative of the long-term trend. This declining trend is expected to continue and align with the home construction/renovations within the City's core, mature and established neighbourhoods as customers continue to renovate their homes and replace old inefficient water fixtures and appliances with newer water-efficient fixtures and appliances. Research also suggests that high water efficiency households can achieve an efficiency benchmark of 11.1 m³/month. EPCOR's current base consumption is 13.0 m³/month, which supports the expectation that greater efficiency outcomes can be achieved in the future.

Chart 1.3-1
Historical Decline in Base Consumption



EWS notes that 12% of indoor water use is estimated to be leakage related (DeOreo, B. & Mayer, P., 2016) and expects this level to decline over the PBR term as EWS is currently in the midst of implementing the Advanced Metering Infrastructure (AMI) project for its Edmonton customers. Once fully deployed, AMI technology will enable access to real-time consumption

data, allowing EWS the ability to promptly notify customers of leaks and continuous flow, which is expected to result in a further decline in base consumption as customers will be informed of and can address their leakages much earlier. This additional decline in base consumption due to a reduction in leakage is not reflected in EWS' forecast and therefore the base consumption forecast is considered to be conservative and reasonable. As a result, no adjustment has been made to the base consumption.

Refer to revised rates reflected in Financial Schedules 22-1 to 22-5 and Bylaw 20865, Schedule 1, Parts I, II and IV, and Schedule 3, Section 2.3.

1.4 Return on Equity (ROE)

Utility Committee Direction per Attachment 9: *Direct EWSI to reduce the proposed rate of return on equity from 10.8% to 10.5%. Direct EWSI to continue with the proposed ROE ramp-up approach for Wastewater Collection across the 2025-2027 PBR term with the adjusted ROE calculated above as the end point.*

In accordance with the Utility Committee motion, EWS has applied a 10.5% return on equity for determining the Wastewater Treatment rates for the 2025-2027 PBR term. Furthermore, the return on equity for determining Wastewater Collection rates will be ramped up each year as follows with the final 2027 return on equity adjusted to 10.5%.

- 2025 Wastewater Collection ROE: 9.0%
- 2026 Wastewater Collection ROE: 9.9%
- 2027 Wastewater Collection ROE: 10.5%

This revision to the return on equity is reflected in the revised Wastewater Collection and Wastewater Treatment Financial Schedule 14-1 (Attachment 4 to this Compliance Application).

1.5 Wastewater Collection Efficiency Factor

Utility Committee Direction per Attachment 9: *Recommend an increase to the efficiency factor to 0.50% for Wastewater Collection and maintain this factor over the PBR term while integration towards "One-Water" continues. As a result of this increase, EWSI would be required to recalculate the impact to utility rates.*

In accordance with the Utility Committee motion, EWS has applied a 0.50% efficiency factor for determining Wastewater Collection rates for the 2025-2027 PBR term. Refer to revisions in Bylaw 20865, Schedule 3, Section 2.2.

1.6 Wastewater Treatment Performance Measures

Utility Committee Direction per Attachment 9: *EWSI revise the H2S exceedances monitoring to be done on a discrete station basis and not an averaging basis. EWSI consider adjusting the Biosolids Management measure to one that reflects the ratio of beneficial reuse of biosolids to the total amount of biosolids generated, on an annual or rolling average basis, to better reflect the effectiveness of EWSI's biosolids management program and enable benchmarking against comparator utilities.*

In accordance with the Utility Committee motion, EWS has revised Wastewater Treatment's H2S exceedance performance measures to be calculated on a discrete station basis and has adjusted the Biosolids Management measure to be a ratio of beneficial reuse of biosolids relative to the total dry tonnes of biosolids transferred to the Clover Bar Biosolids Resource Recovery Facility. Refer to revisions in Bylaw 20865, Schedule 3, Sections 4.0, 4.2.1, 4.2.2 and 4.3.2.

1.6.1 H2S 1-hour and 24-hour Exceedances

H2S – 1-Hour Exceedance Performance Measure

Description	H2S – 1-Hour Exceedance is a measure of the performance of short term odour control systems at the Gold Bar Wastewater Treatment Plant.
Formula	The H2S – 1-Hour Exceedance result is equal to the number of H2S 1-hour exceedances recorded at the Strathcona Industrial Association Air Quality Monitoring Stations located at Gold Bar or at Beverly and that are attributable to Gold Bar Wastewater Treatment plant operations or activities.
Standard	8 (maximum, annual)
Definitions	n/a
Reporting Frequency	Monthly

H2S - 24 Hour Exceedance Performance Measure

Description	The H2S - 24-Hour Exceedance measure is a measure of the performance of longer term odour control systems at the Gold Bar Wastewater Treatment Plant.
Formula	The H2S - 24-Hour Exceedance result is equal to the number of H2S 24-hour exceedances recorded at the Strathcona Industrial Association Air Quality Monitoring Stations located at Gold Bar or at Beverly and that are attributable to Gold Bar Wastewater Treatment plant operations or activities.
Standard	2 (maximum, annual)
Definitions	n/a
Reporting Frequency	Monthly

1.6.2 Biosolids Management

Biosolids Management Performance Measure

Description	Biosolids Management is a measure of EWSI's beneficial utilization of biosolids from the wastewater treatment process.
Formula	The Biosolids Management result is calculated based on the total dry tonnes of biosolids removed from the Clover Bar Biosolids Resource Recovery Facility for beneficial use relative to the total dry tonnes of biosolids transferred to the facility.
Standard	1.0 (minimum, annual)
Definitions	<p>Biosolids removed means the dry tonnes of biosolids transferred from the biosolids storage basins at the Clover Bar Biosolids Resource Recovery Facility to beneficial use programs such as compost or land application.</p> <p>Biosolids generated means the dry tonnes of biosolids transferred to the biosolids storage basins at the Clover Bar Biosolids Resource Recovery Facility.</p>
Reporting Frequency	Monthly

2.0 Late Payment Charge

In addition to addressing the motions outlined in the revised attachment 9 of the October 11, 2024, Financial and Corporate Services report FCS02677, EWS has also made a minor revision to the wording of the Late Payment Charges section contained in Part III of Schedule 1 in order to align with EWS' billing practice. The language 'per month' has been removed from Late Payment Charges to more accurately reflect EWS' billing practice. If a Customer does not pay their bill in full by the due date specified on the bill, EWS charges a late payment charge of 2.5%. The 2.5% charge is not compounded and only applied once to a Customer's bill. If EWS has already applied the late payment charge on a bill, EWS only charges the late payment charge on net new charges that are late on future bills. If a Customer carries a balance for a full year, the late payment charge is equivalent to a yearly rate of 2.5%.

3.0 Revised 2025-2027 Revenue Requirement

The revised 2025-2027 revenue requirement is summarized in Table 3.0-1 below. The original amounts from the PBR Application (column E) are provided for comparison purposes.

Table 3.0-1
Financial Schedule 3-1
Revised Revenue Requirement
2025-2027
(\$ millions)

Description	A	B	C	D	E
	Compliance Filing				Application
	2025	2026	2027	2025-2027	2025-2027
Wastewater Treatment (WWT)					
1 Operations & Maintenance Expenses	78.1	79.7	81.1	238.8	238.8
2 Franchise Fees & Property Taxes	11.7	11.9	12.3	35.8	36.3
3 Depreciation & Amortization	30.2	31.8	33.1	95.1	96.6
4 Return on Rate Base Financed by Debt	14.9	16.1	18.0	49.0	49.0
5 Return on Rate Base Financed by Equity	25.4	27.4	29.3	82.1	84.5
6 Sub-total	160.2	166.8	173.8	500.8	505.1
7 Revenue Offsets	(8.9)	(9.1)	(9.3)	(27.3)	(27.3)
8 Total WWT Revenue Requirement	151.3	157.7	164.5	473.5	477.8
Wastewater Collection (WWC)					
9 Operations & Maintenance Expenses	103.8	105.9	107.6	317.3	318.9
10 Franchise Fees & Property Taxes	13.6	13.3	13.3	40.1	40.2
11 Depreciation & Amortization	52.9	57.2	61.8	171.9	172.8
12 Return on Rate Base Financed by Debt	52.3	57.1	64.3	173.7	173.7
13 Return on Rate Base Financed by Equity	84.2	99.9	115.6	299.7	303.1
14 Sub-total	306.8	333.4	362.5	1,002.7	1,008.6
15 Revenue Offsets	(4.3)	(4.4)	(4.5)	(13.2)	(13.3)
16 Total WWC Revenue Requirement	302.5	329.0	358.1	989.5	995.4

4.0 Average Customer Bill Impacts

Revised average monthly bills for each customer class are summarized in Table 4.0-1 below. The average monthly bills from the PBR application are provided for comparison purposes.

Table 4.0-1
Financial Schedule 22-5
Average Month Bills by Customer Class
2025-2027
(\$ per month)

	A 2025	B 2026	C 2027	D 2025-2027
<u>Average Monthly Residential Bill</u>				
Compliance Filing				
1 Stormwater Utility	22.72	24.44	26.19	
2 Sanitary Utility	28.04	27.76	27.49	
3 Wastewater Treatment	23.61	23.97	24.42	
4 Combined	74.37	76.17	78.09	2.1%
PBR Application				
5 Stormwater Utility	22.87	24.81	26.81	
6 Sanitary Utility	27.96	27.75	27.55	
7 Wastewater Treatment	23.71	24.36	25.09	
8 Combined	74.55	76.91	79.44	2.9%
<u>Average Monthly Multi-Residential Bill</u>				
Compliance Filing				
9 Stormwater Utility	168.27	181.02	193.97	
10 Sanitary Utility	579.30	581.87	581.95	
11 Wastewater Treatment	538.94	557.02	574.34	
12 Combined	1,286.51	1,319.91	1,350.26	-0.3%
PBR Application				
13 Stormwater Utility	169.40	183.75	198.53	
14 Sanitary Utility	581.04	585.08	586.63	
15 Wastewater Treatment	548.15	573.19	597.95	
16 Combined	1,298.59	1,342.02	1,383.12	0.5%
<u>Average Monthly Commercial Bill</u>				
Compliance Filing				
17 Stormwater Utility	256.32	275.74	295.48	
18 Sanitary Utility	153.04	150.96	148.27	
19 Wastewater Treatment	131.69	133.69	135.41	
20 Combined Bill	541.06	560.40	579.16	0.2%
PBR Application				
21 Stormwater Utility	258.05	279.90	302.42	
22 Sanitary Utility	153.57	151.86	149.54	
23 Wastewater Treatment	134.57	138.38	141.96	
24 Combined Bill	546.19	570.14	593.91	1.1%