

STORMWATER UPDATE



**Report to Utility Committee
June 24, 2024**

**EPCOR WATER SERVICES
2025-2027 PBR Application**

Stormwater Update

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1.0 Stormwater Charges – Background

1. Edmonton’s Stormwater collection system is a complex network of runoff capture, storage and conveyance that includes thousands of kilometers of above and underground infrastructure (catchbasins, ditches, culverts and pipes) along with hundreds of strategically placed stormwater management facilities (wet and dry ponds). The system not only collects and transfers stormwater, but also mitigates against flooding and improves the quality of flows that are returned to the North Saskatchewan River and other local water bodies.

2. The cost to implement, operate and maintain the Stormwater system is a shared responsibility and is distributed across properties in Edmonton. Like all of EPCOR’s utility rates, the Stormwater rates are based on a cost-of-service model that is reviewed through the PBR process and approved by City Council. Application of stormwater rates are also referenced in the EPCOR Wastewater Services Bylaw 19627, which states that all properties that either directly or indirectly access EPCOR’s stormwater system should be charged for stormwater services.

3. Stormwater charges are intended to cover the cost to provide Stormwater services across the City of Edmonton and the charges for each individual property are calculated based on the following formula:

Monthly Stormwater Charge =

Area X Runoff Coefficient X Development Intensity X Stormwater Rate

- Area – the size of each individual property in square meters.
- Runoff Coefficient – is a measure of how fast water runs off a property. It is assessed for each zone based on an engineering review of the runoff for a typical customer within that zone. The zone for each property is determined and assigned by the City.
- Development Intensity (I factor) – is an adjustment of the runoff coefficient based on specific property characteristics. The I factor is 1.0 for all customers unless a customer qualifies for an adjustment through the “Intensity Adjustment Program”. This program is available to commercial and multi-residential properties. The objective of the program is to incentivize customers to reduce runoff by adding stormwater infrastructure to their properties.

- Stormwater Rate – is the monthly stormwater charge per square meter, which is determined by EPCOR for each PBR term and approved by City Council through the PBR proceeding.

2.0 Customer Stormwater Bill Impacts in the 2025-2027 Wastewater Application

4. In addition to the general rate increases proposed for the 2025-2027 PBR term, there are three other factors that will result in Stormwater bill impacts to customers:

- Impact to Stormwater rates from Cost of Service Study recommendations (allocation of costs between the sanitary system and the stormwater system);
- Updates to runoff coefficients to align with City of Edmonton zoning changes in 2024; and
- Implementation of billing for Stormwater services for customers that are currently unbilled.

2.1 Impact to Stormwater Rates from Cost of Service Study Recommendations

5. An independent cost-of-service study helped inform EPCOR's wastewater collection and treatment PBR application. A copy of the report is included as Appendix K-2 of the PBR application. The primary objective of this analysis is to support EWS' established practice of setting cost-based rates by determining how costs should be allocated between the wastewater collection (sanitary) and stormwater system. The conclusions from this study indicate that sanitary rates should decrease and stormwater rates increase so that the revenues from the rates charged to customers result in revenues that more closely align with the cost of providing sanitary and stormwater services. The proposed changes result in revenues for each utility service that are within 5% of their cost of service, which is reasonable. Without making a change to reflect the cost allocation between sanitary and stormwater costs, there would be an overcollection of revenues for sanitary services of approximately 16% and an undercollection of stormwater revenues of approximately 16%. The proposed changes are largely offsetting for most customers. However, customers who have large properties with low water use will see their overall wastewater bill increase, which more accurately reflects the stormwater costs to service their properties.

2.2 Updates to Runoff Coefficients to Align with City of Edmonton Zoning Changes

6. With the approval of the City’s Edmonton Zoning Bylaw 20001, runoff coefficients have been updated to align with the new zones. EPCOR undertook an engineering study to update the runoff coefficients as part of its Design Standards Review. EPCOR has modernized its design standards for water, sanitary and storm systems in order to ensure prudently built infrastructure that aligns with the City’s new zoning and supports the City’s plans for growth and densification. Based on this analysis, the updated runoff coefficients reflect the appropriate average runoff for a property within that zone.

7. Runoff coefficients for the new zones are reflected in the proposed Wastewater Services Bylaw 20865, which is included in the PBR application, and are compared with runoff coefficients for the original zones in the table below. These new runoff coefficients will be applied to city of Edmonton properties for determining their Stormwater charges effective April 1, 2025.

**Table 2.2-1
Stormwater Runoff Coefficients – New and Original Zones**

Runoff Coefficient	Original Zone	New Zone
0.1	AG	
0.2	A, RR	A, AG, NA, RR, RVSA
0.3	AP, US (schools)	PS, PSN
0.4		FD
0.5	RF1-4, RMH, IH, MA, AGU	AJ, RS/RSF >450m ²
0.55		DC <700m ² , PU, RM/RSM >450m ² , RS/RSF <450m ² , UF
0.6		DC >700m ² , RL, RM/RSM <450m ² , UI
0.65	RSL, RF5, RF6, RA7, RPL	CN, MUN
0.75	RA8, US (except schools), PU	BE, CB, CG, IH, IM, MU
0.9	RA9, CNC, CSC, CB1, CHY, CO, IB, IM, AGI, DC	
0.95	CB2	

8. EWS is incorporating differentiated runoff coefficients for certain zones to recognize that the runoff for a typical property in these zones differ by area of the property. Specifically, runoff coefficients differ between residential properties less than 450 m² and properties greater than 450 m² to recognize the differences in the ratio of building size and natural areas between smaller and larger lots. DC zones are also divided into properties less than 700 m² and properties greater than 700 m² to recognize that smaller properties with a DC zone classification

are usually residential properties with lower typical runoff compared to larger (non-residential) properties with a DC zone classification.

9. Although these changes result in lower runoff coefficients for some properties and higher runoff coefficients for others, the monthly bill impacts, both positive and negative, tend to be low. However, a small number of properties will see a significant bill increase. These increases are primarily due to previous incorrect zoning classifications of a property (i.e., original agricultural zoning of the property wasn't updated in the billing system following development) or updates to reflect the appropriate average run-off coefficient factor for a particular zone (i.e., heavy industrial zone). For these properties with more significant bill impacts, EPCOR will be engaging and informing them of their bill impacts and potential options to mitigate the increases.

10. Options available for multi-residential and commercial properties to mitigate their bill increases include:

- if a customer can demonstrate their property's runoff coefficient is materially different from that of a typical property within the same zone, a customer can request an adjustment to their runoff coefficient through EPCOR's Intensity Adjustment Program.
- if a property's runoff coefficient is appropriate based on the zone, customers can still reduce their runoff coefficient by taking advantage of EPCOR's new Stormwater Rebate Program. Under this program, a customer can install Low Impact Development installations on their property to capture stormwater and reduce runoff. By doing this they can decrease their runoff coefficient and reduce their stormwater bill.

2.3 Implementation of Billing for Stormwater Services that are Currently Unbilled

11. In accordance with the EPCOR Drainage and Wastewater Treatment Bylaw, any property that receives stormwater services is a customer who should be billed for this service. To ensure fair and equitable charges to all customers receiving stormwater services within Edmonton, EPCOR is aiming to ensure there is consistent application of the stormwater utility charges. All properties in Edmonton that have the potential for stormwater or snowmelt to flow off of the property and into EPCOR's stormwater system should be charged for Stormwater services. Enrollment of all properties who receive stormwater services into billing results in a more appropriate and fair allocation of the cost to be recovered through EPCOR's rates.

12. For the most part, the Stormwater Utility has only been billing for stormwater services to properties that also have a sanitary service account with EPCOR. Following the transfer of the Drainage utility to EPCOR in 2017, EPCOR began an audit of the stormwater utility that revealed some exceptions to this. Certain sanitary customers in account were not being billed for stormwater services including some of the City's properties and most of the privately owned cemeteries and golf courses.

13. EPCOR had planned to begin billing for these properties in 2022 as contemplated in its 2022-2024 PBR application. In 2021, EPCOR notified the City of the estimated bill increase for 2022 and began notifying impacted customers, including privately owned cemeteries. However, during the public hearing based on Councillor feedback, for the 2022-2024 PBR, EPCOR adjusted its approach and postponed bringing these properties into billing until the next PBR term in 2025 to provide more sufficient notification.

14. To ensure all properties who are receiving stormwater services pay for their share of the costs to provide those services, EPCOR is implementing a phased approach, which will result in an allocation of the costs to provide stormwater services to these unbilled properties. The first phase will commence on April 1, 2025, when EPCOR will introduce full billing of all properties in Edmonton that currently have water or sanitary service accounts. This includes:

- Certain City properties (recreation centres, community leagues, attractions, etc.) that are currently not receiving a stormwater bill. Including these properties will result in \$1.7 million in additional stormwater billing to the City beginning in 2025. This bill increase will be partially offset by decreases to the sanitary bill.
- Privately owned cemeteries that currently are not receiving a stormwater bill.
- Privately owned golf courses are not receiving a stormwater bill.

15. EPCOR will engage with these customers to inform them of the changes, as well as share options on how to mitigate these increases through Stormwater Management Rebate Program and Intensity Adjustment Program, if eligible.

16. The second phase of bringing new customers into billing will commence after April 1, 2025 and be implemented during the PBR period and will include properties that do not currently have water or sanitary service accounts but do have stormwater or snowmelt that flows off their property and enters the stormwater system. EPCOR's geospatial analysis indicates there are portions of land in Edmonton that are not currently being billed for

Stormwater services, but likely receive these services. This includes several types of properties ranging from those with higher runoff, like parking lots, to properties with lower runoff, such as parks, vacant and undeveloped land. Although some of these properties are being billed, most are not being billed today.

17. Because this will require a large administrative effort to identify these customers and set up EPCOR accounts for stormwater only service, these customers will be brought into billing over the PBR period. By bringing these properties into billing, current ratepayers will benefit as the costs to serve are more fairly and equitably borne by all customers who benefit from stormwater services.