



Appendix P

EPCOR WATER SERVICES

Stormwater Management Rebate Program

May 31, 2024

1.0 STORMWATER REBATE PROGRAM OVERVIEW

1. EPCOR Water Services (EWS) is implementing an expansion to its rebate program that will help to further reduce extraneous inflow into the wastewater collection system during significant storm events and decrease the risk of flooding. The proposed Stormwater Management Rebate Program is intended to help incentivize stormwater management practices on private properties, as well as assist customers mitigate sewer back-ups and other damage caused by flooding.

2. The current rebate program for Backwater valve installations will continue to be available to eligible customers to reduce their risk from sewer line backups (up to \$800/property). EWS will also continue to offer free home flood inspections to customers within Edmonton.

3. The expanded rebate program is to support additional private side property modifications to reduce the impact of stormwater runoff from parcels on the overall system and reduce risks of overland flooding. Eligible customers would be able to apply for rebates for stormwater management installations, (in addition to the rebate for backwater valve installation) up to a combined maximum of:

- \$2,000/property for single-family residential homes;
- \$5,000/property for multi-family residential homes; and
- \$10,000/property for Industrial, Commercial and Institutional (ICI) properties.

2.0 QUALIFYING PROJECTS

4. Customers may qualify for rebates for the installation of Low Impact Developments (LIDs) on their property. See Section 4.0 for a list of qualifying LIDs.

5. In addition, based on pre-approval from EWS, customers may also be eligible for rebates for disconnecting downspouts that are directly connected to a property's sanitary or stormwater service.

- **LIDs** are a type of green infrastructure that reduce the volume and speed of flows into the collection system by capturing and retaining water for later/slower release. LIDs, such as rain barrels, bioretention basins, rain gardens, soil cells, soakaway pits and more can improve property drainage and reduce the risk of sewer backups. Rebates for the installation of new LIDs will be determined using a cost-of-service calculation that considers the volume of stormwater it can manage. The total rebate for LIDs on

individual properties will be assessed based on the area and depth of impervious surface that the stormwater can be diverted per m³.

- **Downspouts** channel water from a property's roof to local storm drains or sewers. Properties (typically ones built more than 30 years ago) with downspouts connected directly to a property's sanitary or storm service add increased pressure on the wastewater collection system, especially during times of heavy rain and snowmelt. Based on system requirements, and where identified and approved by EWS, customers with downspouts that are connected directly to the wastewater collection or stormwater system (i.e. to pipes running underground) may be eligible for a rebate of up to \$100 per downspout to cover the costs of rerouting roof leaders to run above ground where water can be absorbed into a permeable surface (e.g. grass), or collected in a rain barrel/storage tank.

3.0 RATIONALE

6. The proposed program was developed based on a number of factors, including the number of different property types in the City of Edmonton (CoE), historical flooding reports, similar programs in other jurisdictions, as well as local programming with comparable target audiences (e.g. the City of Edmonton's Boulevard Gardening Program).

7. In addition to flood mitigation and alignment with the SLOW theme of the Stormwater Integrated Resource Plan (SIRP), the proposed rebate program will also help provide system capacity for future community growth. Furthermore, effective stormwater management practices have been shown to help reduce peak runoff periods and improve the water quality of flows. This not only helps reduce the costs to operate and maintain the wastewater collection system (e.g. reduces the need for large-piped infrastructure investments) but helps maintain reasonable rates for customers.

8. Research also shows that natural hazard mitigation, such as green infrastructure, saves much more than it costs. For riverine flooding, the big-picture average is about \$6 USD saved per \$1 USD invested. Also, engagement with third-party stakeholder organizations such as the Institute for Catastrophic Loss Reduction have shown that stormwater management installations can potentially reduce insurance premiums. Many LIDs are also often lower maintenance, saving property owners time and money. LIDs also bring broader environmental benefits, helping generate clean air, combat heat island effects, increase biodiversity, and protect the groundwater table through natural filtration.

4.0 ELIGIBLE LOW IMPACT DEVELOPMENTS

9. Pending pre-approval from EWS, customers that opt to install new LIDs on their property may be eligible for a rebate under the proposed Stormwater Management Rebate Program.

10. Eligible LID installations include:

- **RAIN BARRELS AND STORAGE TANKS** that capture water run-off from roofs via a downspout connection, providing the opportunity to reuse rainwater, save money on potable water usage, and care for lawns and gardens with more nutrient rich water. To be eligible for the rebate a slow drain system must be installed in order to have storage capacity available for subsequent rain events.
- **RAIN GARDENS** (a.k.a. bioretention gardens) are shallow, depressed native plant gardens that promote the infiltration of rainwater. They may look like a typical flower or shrub bed, however, these gardens have specially blended soils and a storage component to filter and hold water during and after a rainfall. Rain gardens work by allowing rain water to enter the garden and then be filtered by the soil and plants.
- **BIORETENTION BASINS** look a lot like rain gardens on the surface, however these basins have their own inlet and a perforated pipe beneath the surface where water is collected, allowing rain water to enter the basin and be filtered by the soil before going to the stormwater system.
- **PERMEABLE PAVEMENTS** provide an alternative to asphalt or cement and allow rainfall to percolate into the ground.
- **SOAKAWAY PITS** are below-ground reservoirs of permeable material that collect rainwater, allowing for infiltration to the ground. These pits provide a good option for properties where there is limited surface space available for a rain garden.
- **ABSORBENT LANDSCAPING** is a depressed landscaped area that looks similar to grassed areas, and can include other vegetation or trees. The landscaped area contains a surface inlet and outlet and may contain a small depression. The area is built with deeper topsoil and sand mixture to hold water during and after a rainfall.
- **BOX PLANTERS** have specially blended soils and rock layers, along with plants, to hold water during and after a rainfall. Box planters can look very different depending where they are installed but are typically used in urban areas.
- **SOIL CELLS** are plastic milk crate-like structures, containing specially blended, uncompact soils, designed to be installed beneath hardscape surfaces like sidewalks

and roads. Once the soil cells are installed, you often cannot tell they are there. These soil cells have their own inlet and a perforated pipe where water is collected, allowing rainwater to enter the soil cells to encourage plant root growth, which helps hold water during and after a rainfall. The water is then filtered by the soil before going to the stormwater system.

5.0 NEXT STEPS

11. EWS plans to work with the City of Edmonton, Community Leagues, Green Infrastructure Proponents and the Insurance sector representatives to promote the program.
12. A new Stormwater Rebate Projects performance measure will track the participation of customers in this proposed stormwater rebate program related to LID installations and downspout disconnections, with the number of qualifying installations reported to EWS' regulator as part of the annual PBR Progress Report. The existing performance measure related to property flood inspections will continue to be tracked and aligns with the installation of backflow valves; however, the number of backwater valves installed is excluded from the stormwater rebate tracking measure to avoid double counting.