



# Rossdale Water Treatment Plant Flood Mitigation Project

Fall 2022 Update

EPCOR is taking action to protect the water supply for Edmonton and more than 65 surrounding communities in the event of a major flood, while also partnering with local communities on flood resilience.

**Read more about the project and download the full What We Heard report for Rossdale at [epcor.com/floodprotection](https://epcor.com/floodprotection).**

By taking action now, we can manage the risk associated with flooding and ensure that customers continue to receive clean, safe and reliable drinking water during a flood emergency.

Protecting our water treatment plants (WTPs) during a major flood event will include three kinds of work:

- Increase protection to critical assets, or relocate them to higher ground within the water treatment plants.
- Prevent river water from backing up into the plants through drainage pipes that discharge to the river, starting in 2023.
- Develop flood barriers to protect equipment and storage facilities that can't be moved.

We expect to begin construction on the flood barriers in 2024. Although there are key decision points along the way, we will continue to engage with community members and Indigenous Nations throughout the project.

Over the past year, we have been working with community members, Indigenous Nations and rights-holders to understand perspectives and preferences related to flood barriers at the Rossdale Water Treatment Plant. We have also regularly employed Indigenous monitors during ground disturbance work for this project. In partnership with Indigenous Nations and communities, we have held ceremonies at Rossdale to respect teachings and Indigenous ways of knowing as it relates to these lands.

EPCOR plans to review the project plan with City Council in late 2022/early 2023.

## ADDRESSING COMMUNITY CONCERNS

Over the past year, we have had numerous conversations and interactions with the Rossdale community, including meetings with the Rossdale Community League executive, online and in-person workshops, one-on-one meetings and pop-up events in which we shared home flood prevention information and distributed free water sensors.

During these conversations, we heard two main questions relating to the impact of the project, and EPCOR's role as a neighbour in the community:

1. What is EPCOR doing to support flood protection for local communities as a whole?
2. How is EPCOR ensuring that the proposed flood barriers will not adversely affect nearby homes?

A key commitment of our plan to protect the plants is that any flood barriers will not worsen flooding in the surrounding neighbourhood or negatively impact nearby homes.




Hydraulic modelling from the provincial government, based on work by the United States Army Corps of Engineers and confirmed by a third-party consultant, shows that there would be **no change in the water level across the flood plain around Rossdale** due to the treatment plant flood barriers. In addition, **flood flows through the community would not be worse** due to the presence of flood barriers around the plant. If you would like more information on this, please email [waterprojects@epcor.com](mailto:waterprojects@epcor.com) or call 780-412-3599.

EPCOR has programs in place to help the Rossdale community and homeowners mitigate other impacts of both rainfall and river-related flooding.

- Our Stormwater Integrated Resource Plan is a 20-year, \$1.6-billion plan that includes a variety of actions to slow, move, secure, predict and respond to flooding in Edmonton neighbourhoods. In Rossdale, this will mean construction of a dry pond, improvements to the outfall gates to prevent water backup, and low-impact development (or "green infrastructure"). Visit [epcor.com/floodmitigation](https://epcor.com/floodmitigation) to learn more.
- Our Homeowner Flood Prevention Program includes free flood-proofing home inspections, as well as a backwater valve subsidy for eligible properties. We also distributed 31 free Wi-Fi water sensors to the Rossdale and Riverdale communities this past summer. Visit [epcor.com/floodprevention](https://epcor.com/floodprevention) to learn more.



## LEGEND

-  Flood wall
-  Grass-covered embankment
-  Road regrading

### Grass-covered embankments topped with security fencing

- Grass-covered embankments are natural looking.
- They take up a wider amount of space compared with flood walls.
- They have specific landscaping requirements that can only accommodate naturalized grasses or sod so the area can be mowed. Large vegetation can prevent proper inspections, create seepage pathways, and encourage burrowing animals.



### Flood walls topped with security fencing.

- Flood walls take up a smaller amount of space compared with grass-covered embankments.
- They can incorporate more of the community amenities.
- Security fencing on top of the flood barriers protects the water reservoirs and treatment plant.



**With either type of flood barrier (wall or grass-covered embankment) buffer zones are in place that restrict the type of vegetation that can be replanted. The buffer zone is about 5m from the wall or end of the embankment slope. This is to maintain the structural integrity of the barrier.**

We are also committed to helping protect our neighbours in the Rossdale community. In the event of a severe flood from the river overtopping its banks, the City of Edmonton and Alberta Environment and Parks would activate their Emergency Operations Centre. EPCOR would work with our partners during the response, and ensure that safe, clean water remains available to help with response and recovery efforts.

## WHAT WE HEARD: FLOOD BARRIER DESIGN

Community engagement to date was designed to help us **refine** the barrier design.

A combination of either grass-covered embankments or flood walls will be built around the Rossdale Water Treatment Plant, designed to meet technical requirements, reduce the impacts to vegetation and minimize the cost to rate payers.

*Thank you to everyone who has provided feedback about this project to date!*

*This is a collaborative effort and we appreciate your insight and input. The feedback you've provided to date has helped us understand what we should consider as we select designs for the Rossdale site.*

At two locations facing east, we asked participants what kind of flood barrier they preferred. The three primary options explored were a grass-covered embankment, a flood wall, or a combination of the two. Responses were nearly evenly distributed between these options.

However, the community input did provide insights into how they want the barriers to look and feel. These design considerations, which we will take forward to detailed design, include:

- Create space for recreation and transportation.
- Blend into existing surroundings.
- Consider how to discourage vandalism.
- Improve "institutional" look/feel of the WTP.
- Celebrate the history of the area.
- Add amenities that support recreation and community gathering.
- Align with City, EPCOR, and Community priorities.

## OUR COMMITMENT TO VEGETATION MANAGEMENT

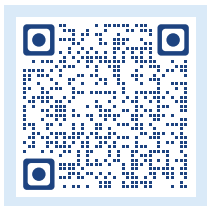
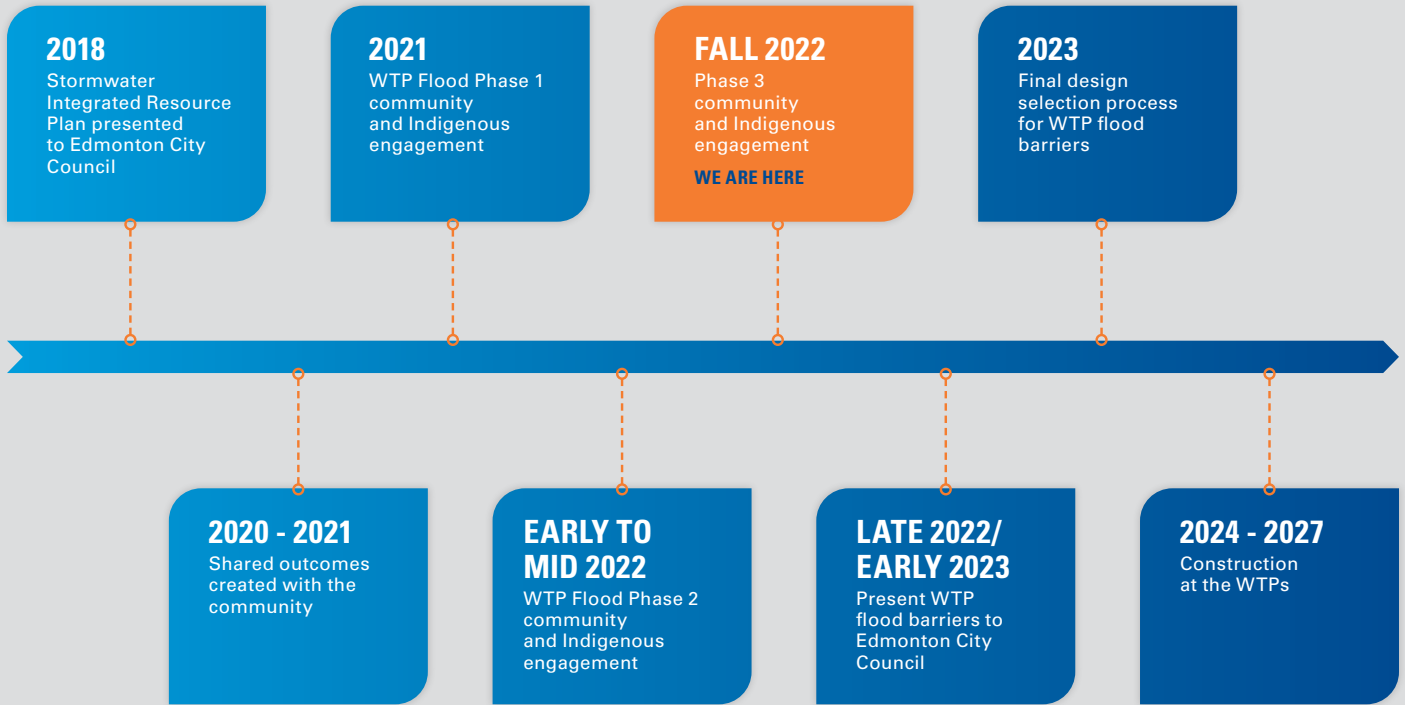
EPCOR is committed to stewarding the environment at our water and wastewater treatment plants. That means minimizing the impact of our activity on vegetation and wildlife; and replanting, restoring or replenishing habitat within our fenceline. To do this, we have begun to develop a vegetation management plan to improve overall ecological structure and function, and restore habitat on our sites. We are mapping current vegetation at each site and outlining a long-term plan to increase natural areas. This could include wildflower/pollinator gardens, developing a diverse undergrowth and forest succession strategy around already treed areas, and planting more trees to support city-wide goals toward improving the urban forest.

In addition to developing vegetation management plans for our sites, we will be looking for opportunities to work collaboratively with the City of Edmonton and align with the Urban Forest Management Plan on vegetation and habitat management outside our fencelines.

For the work associated with this flood mitigation project, we will begin implementation of this vegetation management plan with the aim of achieving an overall net gain in ecosystem structure and function in the area. This includes expanding natural areas within our fenceline if we are unable to restore them outside.



# WATER TREATMENT PLANT (WTP) FLOOD MITIGATION PROJECT AND ENGAGEMENT TIMELINE



## WE WANT TO HEAR FROM YOU

Along with the community input we've received to date, are there other things you'd like us to consider? Take this short survey

to tell us what you think by scanning the QR code with your smart phone camera.

## You can also contact us at:

**Phone:** (780) 412-3599

**Email:** [waterprojects@epcor.com](mailto:waterprojects@epcor.com)

Read more about the project and download the full What We Heard report for Rossdale at [epcor.com/floodprotection](http://epcor.com/floodprotection).

**EPCOR gratefully acknowledges grant funding received through the Alberta Community Resilience Program and the Government of Canada's Disaster Mitigation & Adaptation Fund.**