



# **E.L. Smith 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 E.L. Smith 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 service for years to come.

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.

## **COMMUNITY & INDIGENOUS ENGAGEMENT**

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 E.L. Smith 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 E.L. Smith to respect teachings and Indigenous ways of knowing as it relates to these lands.

We conducted community engagement using a variety of techniques, including online and in-person workshops, one-on-one meetings, and regular project communications. Engagement to-date was designed to help us **refine** the project design.

## **ADDRESSING COMMUNITY CONCERNS**

During conversations with community members, we heard a number of questions relating to the impact of the project, and EPCOR's role as a neighbour in the community. To summarize these concerns:

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 in the event of a major flood?

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

EPCOR relies on hydraulic modelling from the provincial government, which is based on work by the United States Army Corps of Engineers. The modelling, as confirmed by a third-party consultant, shows that there would be minimal change in the water level around E.L. Smith due to the treatment plant flood barriers.

EPCOR also has programs in place to help mitigate other impacts of both rainfall and river-related flooding.

- Stormwater Integrated Resource Plan, 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. Visit [epcor.com/floodmitigation](https://epcor.com/floodmitigation) to learn more.
- Homeowner Flood Prevention Program, which includes free flood proofing home inspections. A backwater valve subsidy is also available to eligible properties. Visit [epcor.com/floodprevention](https://epcor.com/floodprevention) to learn more.



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



North Saskatchewan River

E.L. Smith Rd

**LEGEND**

-  Flood wall
-  Grass-covered embankment



### Grass-covered embankments topped with security fencing.

Grass-covered embankments have the following features:

- The embankments are natural looking; and
- 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 generally take up a smaller amount of space.
- 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. Sod or naturalized grasses are the only option for replanting here. Roots from large vegetation can encourage burrowing animals.**

## WHAT WE HEARD: FLOOD BARRIER DESIGN

A combination of grass-covered embankments and flood walls will be built around E.L. Smith to meet technical requirements, reduce the impacts to vegetation and minimize the cost to rate payers.

We compiled and assessed all of the perspectives, suggestions, and comments received during community engagement to develop design considerations that we will take forward into detailed design over the next year.

We heard from community members and Indigenous Nations that there is a clear preference for maintaining the natural state of the area as much as possible. Participants also noted opportunities for sharing education and history with visitors.

The following are key insights from community members' feedback:

- *Prioritize maintaining and enhancing existing environment.*
- *Support existing recreational use through minimal amenities.*
- *Include educational features with Indigenous representation.*
- *Align with City, EPCOR, and community priorities.*

*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.*

## OUR COMMITMENT TO VEGETATION MANAGEMENT

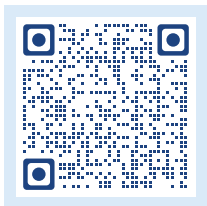
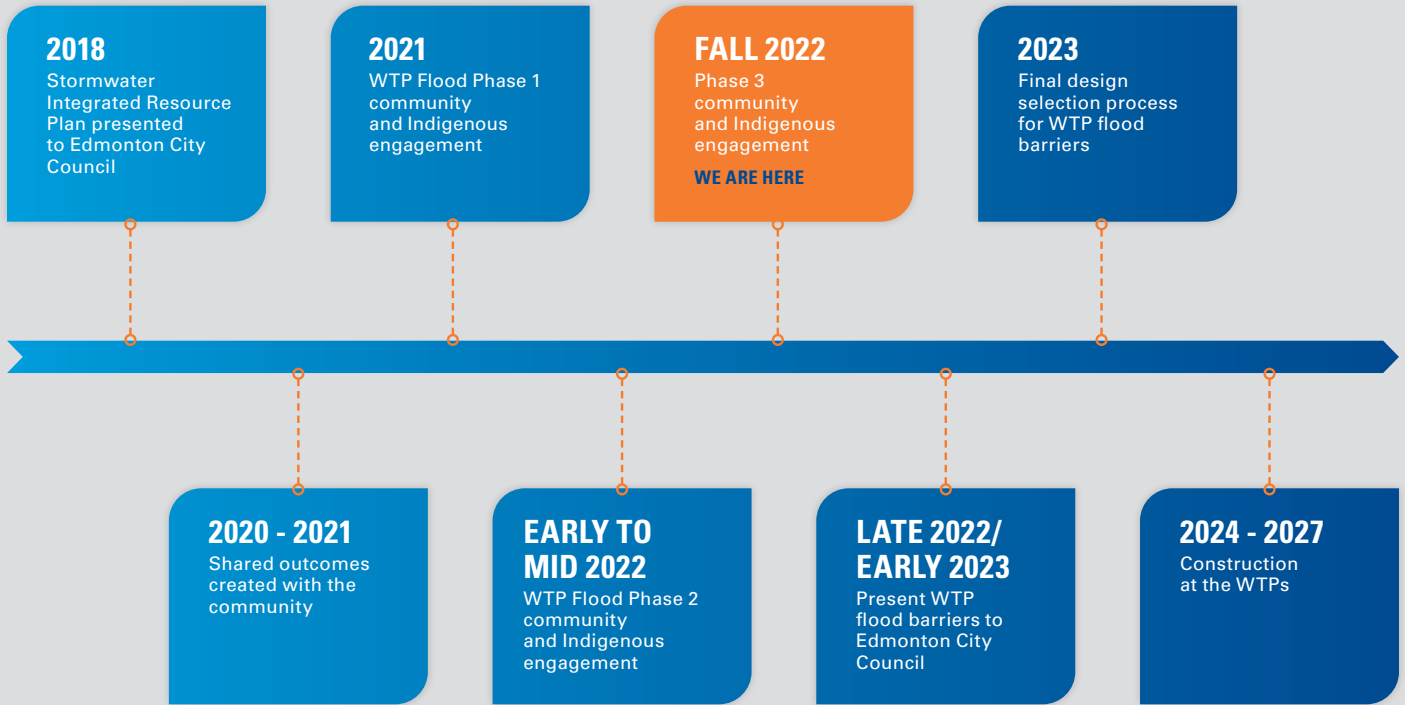
EPCOR is committed to stewarding the environment at our water and wastewater treatment plants. That means minimizing the impact of our activity on vegetation and wildlife; and replanting, restoring or replenishing habitat within our fenceline. To do this, we have begun to develop a vegetation management 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 E.L. Smith 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.**