

The background image for the top section of the page shows a large steel truss bridge spanning a wide river. In the foreground, two people are standing on the grassy bank, looking out at the water. The scene is captured during the "golden hour" of sunset or sunrise, with a warm, orange glow over the sky and water. The city skyline is visible in the distance behind the bridge.

Edmonton Water Treatment Plants Flood Mitigation Project

August 2023 Update

Digital Version

What's new in this newsletter?

- Get up to speed on the project – and how we're meeting commitments to Indigenous Nations and community members
- See how our vegetation management plan is taking shape – and how we'll replant more area than we remove
- Learn about next steps in the approval process and detailed design that will feature art and educational elements

As you may have seen or heard from us in the past couple of years, we need to protect the water supply for Edmonton and more than 90 communities in the metropolitan region from a major flood event.

To ensure we can continue to serve the 1.3 million people in the Edmonton metropolitan region who count on us for their drinking water, we are proposing a project that will:

- Lessen the chance of catastrophic damage to the region's treatment plants during a North Saskatchewan River flood
- Help us resume potable water treatment as quickly as possible afterwards

ABOUT THE PROJECT

The Edmonton Water Treatment Plants (WTP) Flood Mitigation Project will protect the region's drinking water supply by:

- Installing flood barriers to protect water treatment equipment such as transformers and pumps, and below-grade treated water reservoirs

- Preventing river water from backing up into the plants by installing flood gates into existing plant drainage pipes that discharge to the river
- Increasing protection to critical assets, or relocating them to higher ground within the plants

From 2024 – 2028, we plan to construct flood barriers that include a combination of grass-covered embankments and flood walls, both topped with security fencing. These barriers have been designed considering input from Indigenous partners and local communities while meeting technical requirements, reducing the impacts to vegetation and wildlife, and minimizing the cost to ratepayers.

Regrettably, this will result in the loss of some trees and vegetation in the area around the barriers. See the inside pages for more information about the total impact, and how we're planning to add more area of vegetation than we remove.

ADDRESSING COMMUNITY FEEDBACK

As we've been developing this project, we have engaged Indigenous Nations and local community members to learn about the values they share, barrier design, construction considerations and concerns. EPCOR has sought input from Indigenous Nations, community members, special interest groups, residents, recreational user groups and community leagues to understand how to best integrate the flood barriers into locations around the plants.

We've worked to address this feedback, which is reflected in the project proposal and Vegetation Management Plan we are taking forward to Edmonton City Council later this summer. Read on for highlights of the feedback we've heard and how we've addressed it, plus information about the City Council review.

EL SMITH WTP CONCEPTUAL VEGETATION MANAGEMENT PLAN MAP

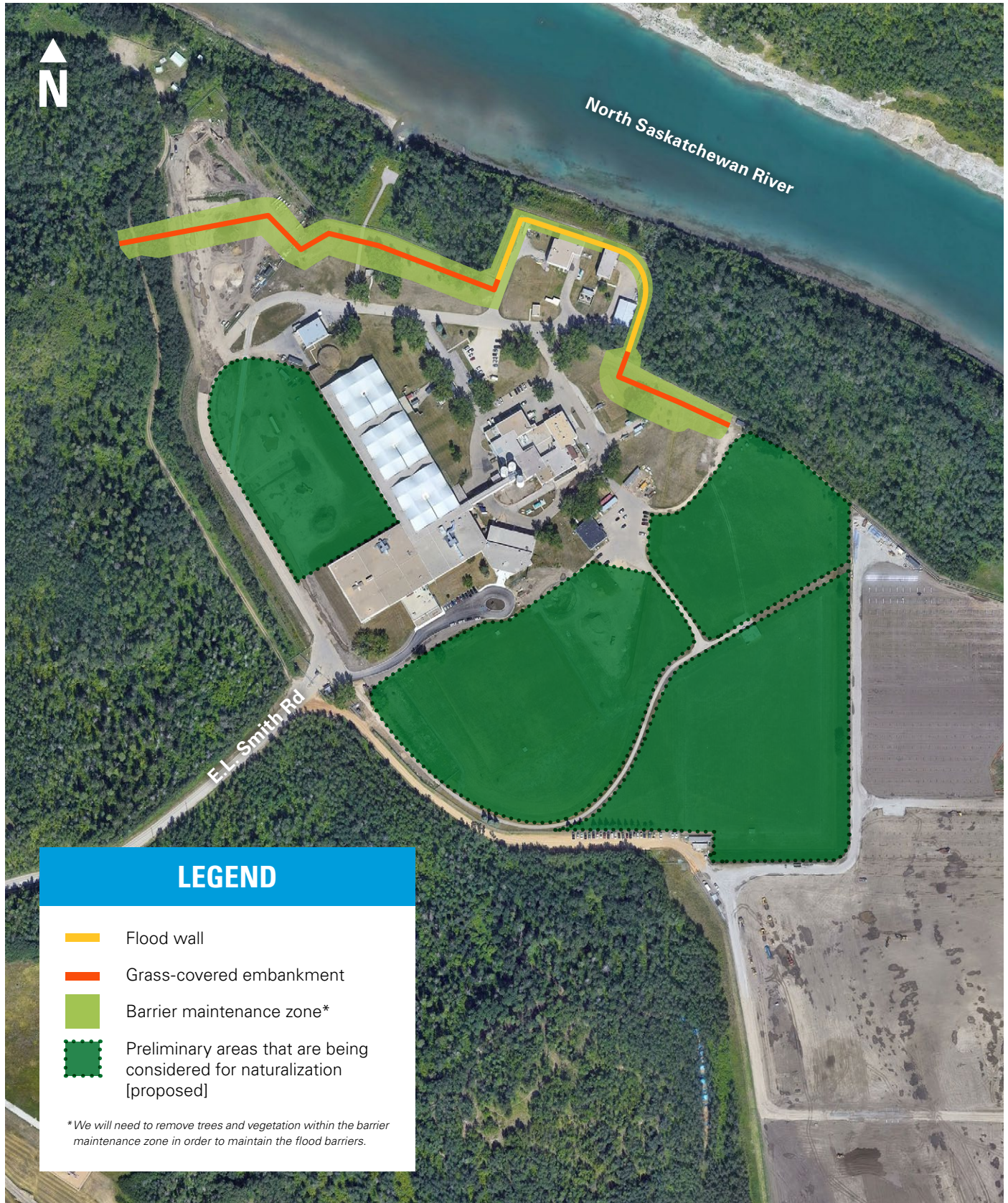


Figure 1. Infographic of EL Smith WTP plant site showing the expected impact from the flood mitigation project and preliminary areas that are being considered for naturalization. We will plant vegetation in the areas marked on the map where possible, where human connection points, infrastructure and maintained areas allow.

ROSSDALE WTP CONCEPTUAL VEGETATION MANAGEMENT PLAN MAP



Figure 2. Infographic of Rosedale WTP plant site showing the expected impact from the flood mitigation project. We will plant pockets of vegetation around the plant site over time, such as at the areas marked for naturalization on the map.

VEGETATION MANAGEMENT

Some trees will need to be removed during construction. After construction, a maintenance zone where some types of vegetation are restricted will be established, to make sure the flood barriers work properly. While we have worked to minimize the impact of the barriers, regrettably, a total of 557 trees will be removed between both plant sites. The following illustration gives you a sense of the trees that will be removed.



Tree size	Sapling	Small tree	Mature tree
Diameter at breast height	Less than 10 cm	Between 10 – 25 cm	Greater than 25 cm
Number being removed	E.L. Smith: 249 Rossdale: 11	E.L. Smith: 188 Rossdale: 32	E.L. Smith: 59 Rossdale: 18

CARING FOR THE RIVER VALLEY

Doing our part to support vegetation and wildlife habitat is a value we share with our communities. To minimize the impact of our activity on vegetation and wildlife, and improve the overall ecological structure and function at our WTP sites, we are taking a multi-mitigation approach, including a long-term a Vegetation Management Plan. Our goal is to naturalize areas that are greater than what is removed for the barriers.

What does this mean? The maps on these pages show two states of vegetation.

- The light green space around the barriers shows the “barrier maintenance zone” within which vegetation will be removed to preserve structural integrity. This zone is about 4.6 metres wide on either side of the barrier.
- The dark green space shows areas that are being considered for naturalization. This could include wildflower/pollinator gardens, planting more trees, and developing undergrowth around already treed areas.
- We will work with the City on how and where to add trees and vegetation on city land outside our fencelines.

HONOURING TRADITIONAL ECOLOGICAL KNOWLEDGE

As part of developing the Vegetation Management Plan, EPCOR requested participation from interested Indigenous Nations and communities to form a Traditional Ecological Knowledge working group to provide meaningful input to vegetation management at the two WTP sites. In the first half of 2023, EPCOR held several meetings to walk the sites and discuss shared values and naturalization strategies, and gather feedback to ensure these lands were cared for. We are now incorporating this advice into our Vegetation Management Plan, which will target a return to a natural Prairie Parkland ecoregion as appropriate. There is also a strong desire for harvestable berries and ceremonial sites for Indigenous teachings.

All together, we reached out to more than 30 Nations to engage on vegetation and construction, this included hosting pipe ceremonies at Rossdale Water Treatment Plant and making offerings that reflect the diversity of Indigenous Peoples in and around Edmonton.



Supporting Urban Indigenous Ceremony

We will provide some of the trees being removed as part of this project to kihcihkaw askî for ceremonial and traditional uses. kihcihkaw askî provides a natural setting in Edmonton for Indigenous Peoples, groups, and communities to host ceremonies, sweat lodges and facilitate intergenerational learning.

FAST FACTS

- We're responding to the risk of major flood to ensure we can continue to provide clean drinking water to you and more than 1.3 million people in over 90 communities and counties around Edmonton.
- The proposed flood mitigation project will protect the region's WTPs to a 1-in-500-year flood level. This is a measure of risk, and could happen more often than the name suggests. While the likelihood of such a flood is very low, the catastrophic impact that would occur if we're not protected would take months to recover from, leaving the Edmonton region with limited or no drinking water during that time.
- In the event of a flood, our WTP flood barriers will not worsen the impact of a flood on local communities. This was confirmed through engineering studies and provincial hydraulic modelling.
- We deeply value the river valley and are committed to improving the ecological value of the area. We will restore more vegetation area than we remove.
- These lands have been gathering places for Indigenous Peoples since time immemorial, and so we are honouring Indigenous perspectives and connections to the land by engaging more than 30 Indigenous Nations and communities throughout the project.
- We're designing the barriers to integrate into the natural environment and character of the local communities, which we heard from Indigenous Nations and local community members was important.
- Indigenous Nations and communities will monitor all the activity that disturbs the ground for this project, and any archaeological artifacts we find. We have also worked with Nations to develop a new archeological finds process that goes above and beyond provincial reporting requirements.
- Two government initiatives have committed grant funding to complete this work: the Provincial Alberta Community Resilience Program and the Federal Disaster Mitigation and Adaptation Fund, to a total of approximately \$22 million. This helps to ease the burden on our water customers.
- We're partnering with communities on neighbourhood flood resilience by enhancing neighbourhood flood protection, supporting emergency response and recovery, and working with homeowners to flood-proof their homes. (Visit epcor.com/floodprevention to learn more.)



A sample rendering of enhanced vegetation and the flood wall at the E.L. Smith Water Treatment Plant.



This rendering shows how the path to the south of the Rossdale Water Treatment Plant will look once the barrier and revegetation is complete. The project will not touch the vegetation south of the trail, between the trail and the river.



This rendering shows how the flood barrier might look once complete. The barrier will use a combination of grass-covered embankment and concrete wall.

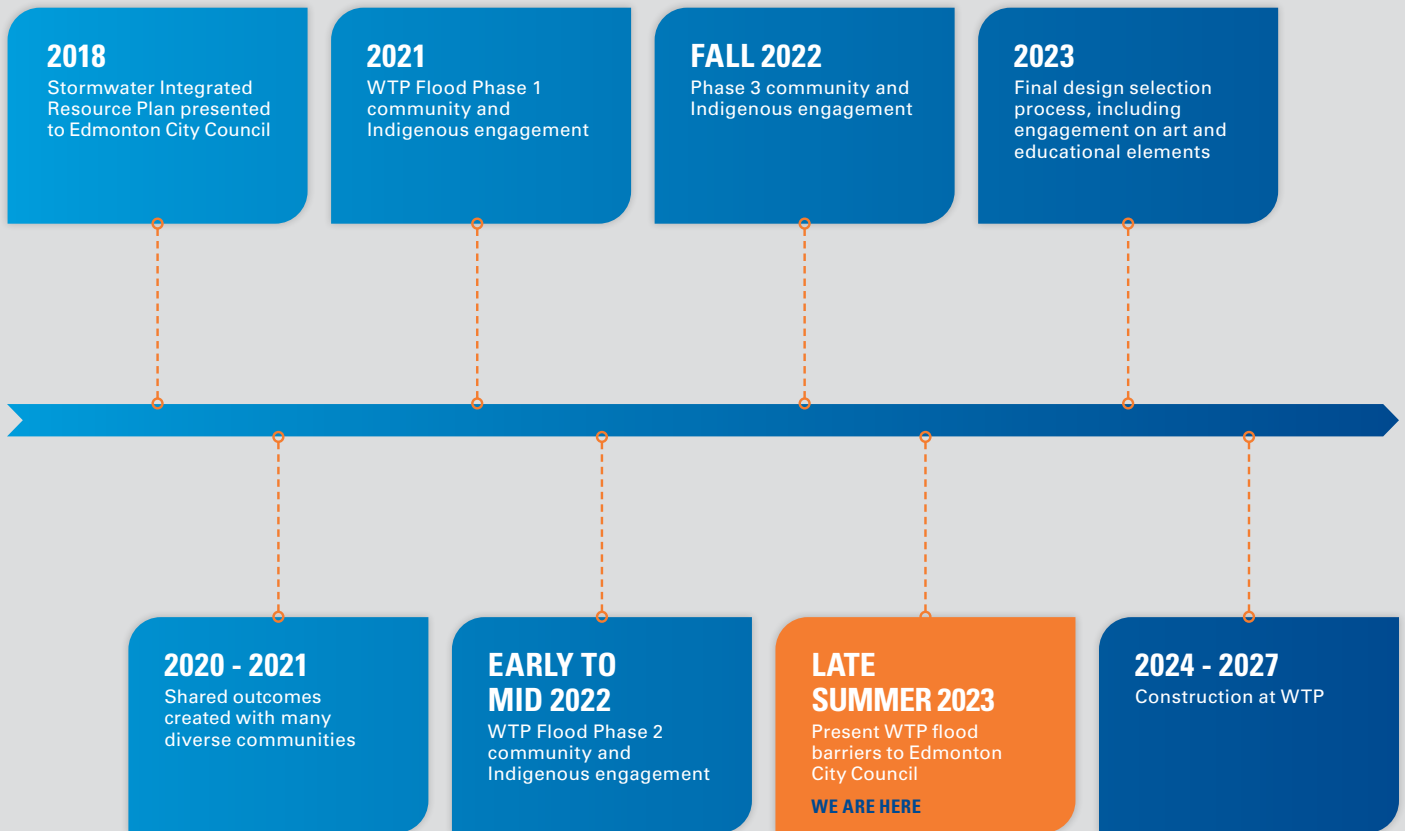
WHAT'S NEXT?

City Council approval process: On September 5, 2023, our project team will be presenting to Edmonton's Utility Committee about the project. If approved, Utility Committee will refer the project to City Council for the September 12, 2023 meeting. However, this date may change.

Ongoing Indigenous and community engagement: The flood barriers present an opportunity to tell the history of these lands through art and interpretive storytelling. We have heard art, recreation, knowledge, tradition and history are all important to be recognized.

We are working with Indigenous Nations and local communities to add art and interpretive installations for people to interact with and enjoy, based on their feedback. Watch for more information coming soon about how you can get involved in this engagement process.

WATER TREATMENT PLANTS (WTP) FLOOD MITIGATION PROJECT AND ENGAGEMENT TIMELINE



WE WANT TO HEAR FROM YOU

Do you have questions or comments you'd like to share?
Contact us at:

Phone: 780-412-3599

Email: waterprojects@epcor.com

Website: Read more about the project and download full project reports at 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.