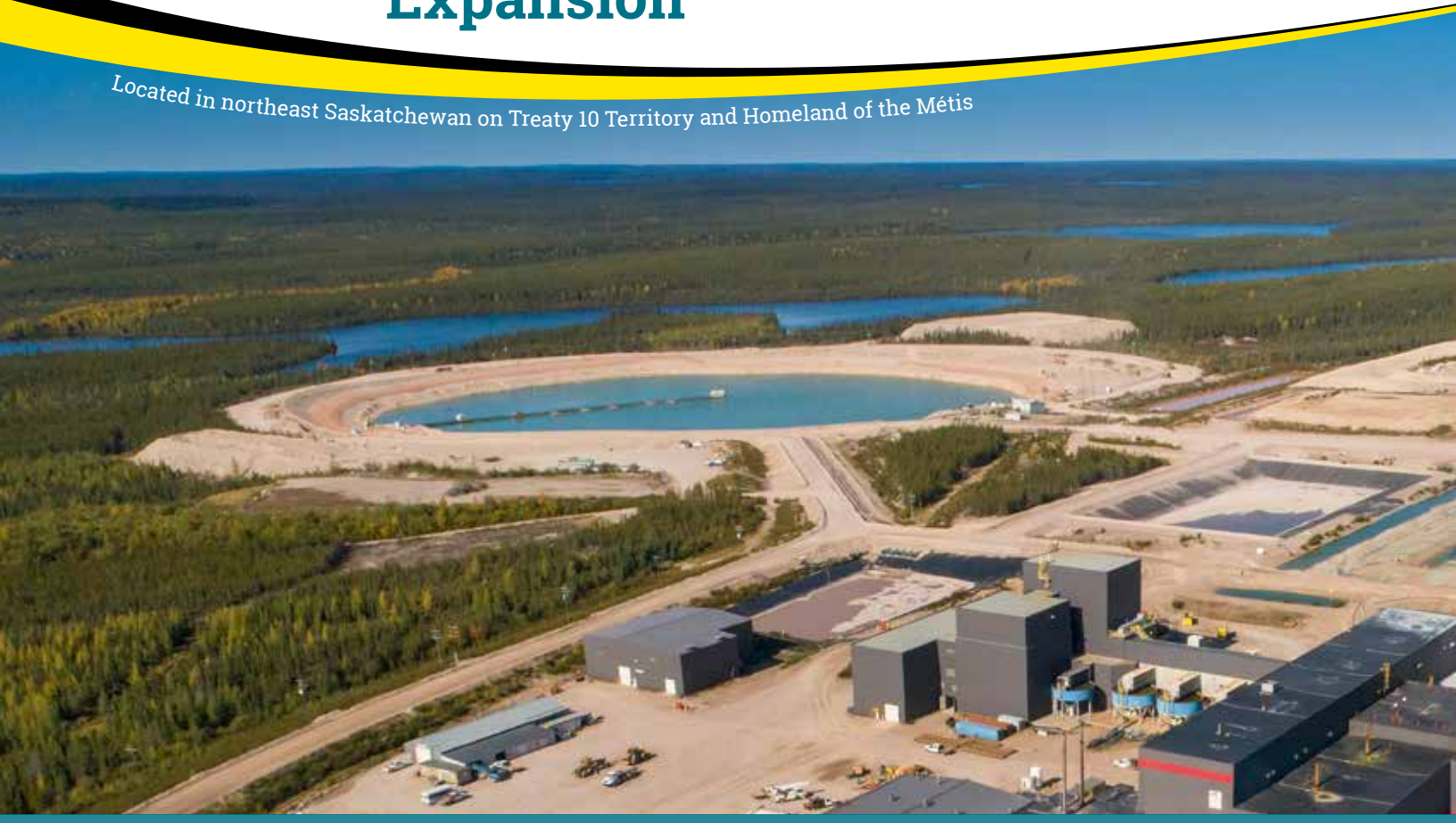
Orano Canada's McClean Lake Tailings Management Facility Expansion

Located in northeast Saskatchewan on Treaty 10 Territory and Homeland of the Métis



Tailings Facts

- Tailings are the waste material left after a mineral, such as uranium, is processed out of the rock or ore.
- All mining and mineral processing facilities produce tailings.
- Tailings must be disposed of and managed properly to protect the environment for the long term.
- Tailings can be disposed of using various options such as in existing valleys, on surface, underground, and in mined out pits.

Tailings at McClean Lake

- At Orano Canada's McClean Lake Operation, tailings are disposed of in a mined out pit, called the JEB pit. They are submerged under water as a method of radiation protection and to prevent them from freezing, which is more challenging to manage.
- Tailings are processed in the McClean Lake mill to be stable in the long term (do not release chemicals that may pose a risk to the environment), and to consolidate (settle and pack as a hard solid mass) in the pit - now called the Tailings Management Facility. They act as a plug that forces ground water to travel around the pit (keeps ground water clean).

Sustainably Managing Our Tailings For The Long Term

Orano has over 20 years of milling and tailings disposal experience at McClean Lake. It is expected that the tailings management facility (TMF) will reach its capacity in 2027, so we are proposing to expand the TMF to allow us to keep milling beyond 2027. We view this expansion as the best option as it allows us to use an existing disturbed area, which means the footprint of the site does not increase; it uses existing infrastructure and does not impact any new environment.

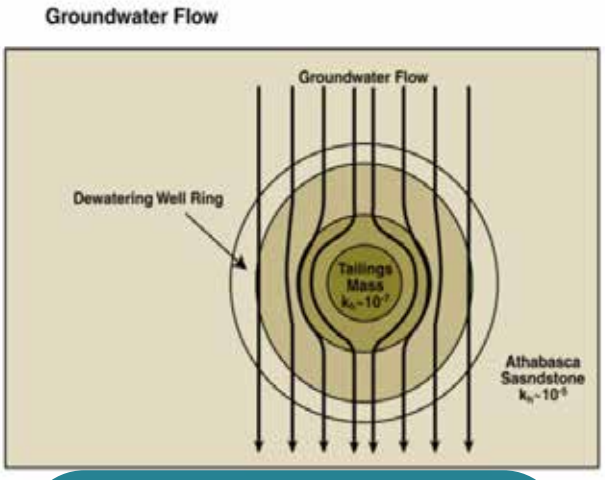
Tailings before they go in the TMF. They have the texture of pudding, they are not runny.

Tailings after a few years in the TMF. They are now solid and hard. They create a plug, which forces the ground water to go around them. They are not free flowing.

Hardened tailings are compact, strong and can stand on their own. A sample of 7,6cm (3in) in diameter by 25,4cm (10in) long can withstand 6kg (13lb) of weight stacked on it.

The Tailings Management Facility

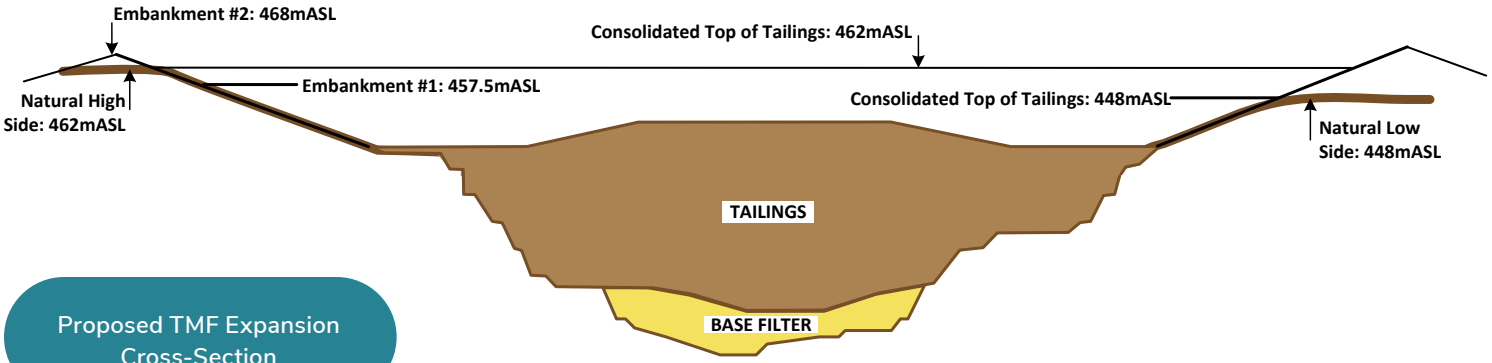
- The Tailings Management Facility (TMF) design allows the proper management of the tailings, and minimizes potential adverse environmental impacts. Orano designed the existing and proposed expansion of the TMF with safe operation and decommissioning in mind.
- Tailings from the uranium milling process are collected and treated in the tailings preparation circuit. The solids are separated from the liquids. The liquids are treated in the water treatment plant. The solid tailings are thickened into a mud like substance called slurry that has the consistency of pudding. The thick slurry is pumped down to the TMF for long-term storage.
- Once in the TMF, the tailings settle at the bottom and consolidate or harden over time. These hard tailings are not free flowing and are fully contained in the facility.



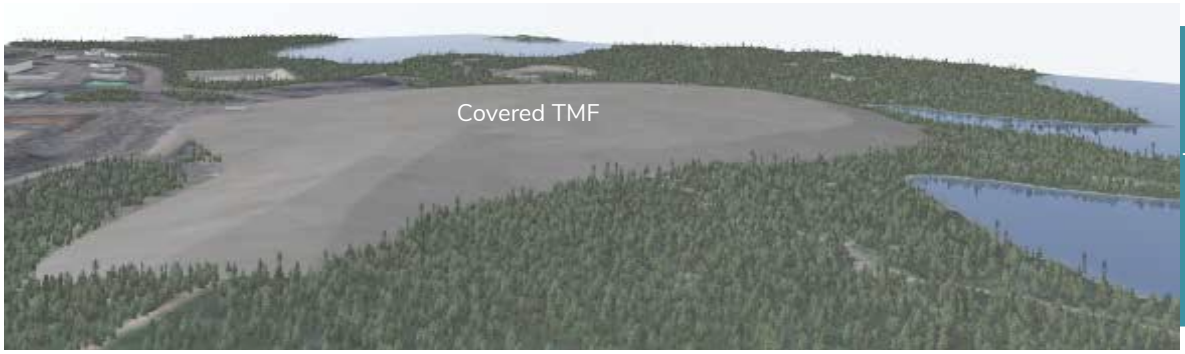
Tailings are compact and act as a plug to divert groundwater around the TMF

The Proposed TMF Expansion

- Currently, tailings are allowed to consolidate to the top of the pit on the lowest side. To optimize the TMF's footprint and have the tailings be even with the existing ground at the end of production, Orano is proposing to build an embankment around the top of the pit so that the height all around the pit becomes even with the existing highest side of the pit.
- Responsibly, this expansion will take place in stages as the space is needed to continue to produce. The material used to construct the embankment will come from the existing clean waste rock pile.
- During operations, the tailings will be placed higher than the naturally occurring high side of the pit, which will allow the tailings to settle and pack at a level even or below the natural high side of the pit after closure of the TMF. At the time of decommissioning, a protective cover will be placed on the TMF, the side slopes will be flattened and the entire facility will be shaped and blended into the natural environment.



Proposed TMF Expansion Cross-Section



Decommissioned TMF Rendering

The cover will be vegetated with species determined during conversations with Indigenous representatives

Decommissioned TMF Rendering

Revegated with local species

Stability

- The stability of the TMF's slope has been one of the main considerations during the development and design of the various stages of the proposed expansion.
- In the short term, during operations, the embankment will help contain the water cover on top of the tailings. The tailings themselves are not free flowing but rather dense and continue to solidify over time.
- The TMF is not located in an area at risk of earthquake.
- A stability monitoring program has been designed and will be implemented following construction of the expansion.
- A third party has conducted an assessment of the potential results of an unlikely embankment failure. It was determined that there would be no catastrophic effect on the watershed downstream of the facility. However, the water and sediment quality in the small lake (Fox Lake) immediately adjacent to the TMF may be affected but would recover within months up to a few years following the remediation.

Regulatory Process

- Orano has updated the TMF expansion project description, which was initially submitted in 2012. The update takes into account operational changes that occurred at the McClean Lake Operation since then.
- The project description details the use of the existing footprint of the TMF and site infrastructure. It outlines the fact that there is no need for new waste rock piles, water treatment plants or roads, and that the discharge of effluent will continue in the same watershed. The environmental footprint of the project is minimized.
- The project description is currently undergoing a technical review by the Canadian Nuclear Safety Commission. During this technical review process and in anticipation of the federal regulatory approval, Orano will continue to provide information on the project.
- The provincial regulator has previously determined that an environmental assessment is not required, which allowed Orano to proceed with the process to obtain construction approval. This process will begin in advance of the need to start construction.
- Orano expects that they will need to begin construction of the expansion in about 2027.

2011 TMF Open House in Air Ronge

Responding to Stakeholder Questions

Q: Is this above ground tailings?

A: No it is not. The tailings are still being maintained within the pit. Over time, they will be at or below the natural high-side of the pit.

Q: Is there a risk of failure?

A: The proper design and construction will minimize this risk, and so will the implementation of the embankment monitoring program to watch for signs of potential failure.

Q: What would be the consequences of a failure?

A: In the unlikely event that the embankment would fail, third-party studies indicate that there would be no catastrophic effect on the waterbodies downstream. The water and sediment quality in the small lake immediately next to the TMF could be affected but would recover within months, or up to a few years, after remediation.

Q: What is the expansion's impact on the environment?

A: There are no new effects on the environment from this project, other than those previously considered, reviewed and approved. The surface and groundwater quality will remain below provincial thresholds, and there are no additional effects on the landscape or wildlife.

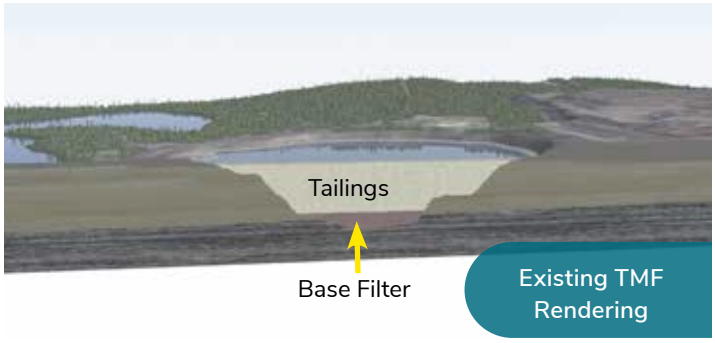
We want to hear from you

Orano is committed to discussing its projects and seeking feedback from the public, particularly its northern neighbours.

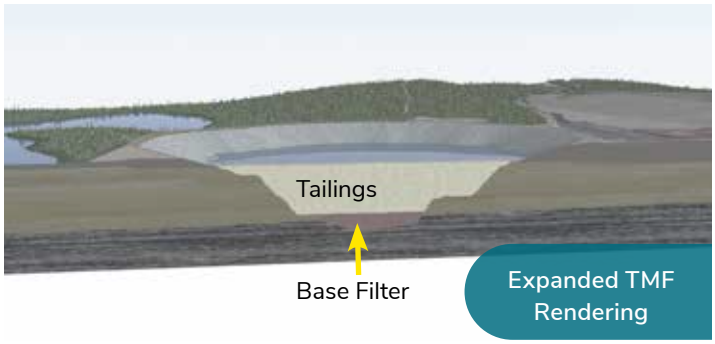
Orano has been providing information and receiving important feedback on this project since 2011, from the public, Indigenous leadership, communities and representatives of organizations such as the Northern Environmental Quality Committees and the Ya'thi Néné AJES. These conversations will continue throughout the regulatory process and for the life of the operation.

We continue to seek your comments or questions and would appreciate receiving any feedback as soon as possible so we may address any concerns in advance of the regulatory decision.

Please send your feedback, comments or questions to **oc-publicrelations@orano.group**



Existing TMF Rendering



Expanded TMF Rendering

Decommissioned TMF Rendering

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