Orano Canada Inc.

Global Industry Standard on Tailings Management Disclosure

Version 2 Revision 0

Document # 359ML-400-RP-Z-009

October 2024

Orano Canada Inc.

Approval for Use

Editor:		
Spencer Chuhaniuk	Civil/Geotech Engineer	Approved By orano Digitally signed by CHUHANIUK Spencer Date: 2024.10.22 09:44:17 -06'00'
Name	Title	Signature

Approver:		
Colin Braithwaite	VP, SHER	BRAITHWAITE John Digitally signed by BRAITHWAITE John Date: 2024.10.22 10:23:41 -06'00'
Name	Title	Signature

History of Revisions

Version	Date	Details of Revision
1	October 2023	Initial Issue
2	September 2024	Update to Section 5 – Risk Assessment Update to Summary of Annual Performance with 2023 results Update to 2024 Independent Review

Table of Contents

1 Executive Summary

Orano Canada Inc. is the operator of the McClean Lake uranium production facility in Northern Saskatchewan, Canada. Tailings from the production process report to the JEB Tailings Management Facility. The JEB Tailings Management Facility is a former open pit mine and in 1999 was converted to permanently store tailings.

The JEB Tailings Management Facility has recently undergone expansion to permanently store tailings above natural ground (above the open pit rim). This involved extensive engineering, regulatory approval and construction of the embankment.

Orano Canada Inc. being a subsidiary of Orano Mining, a company member of the International Council on Mining and Metals agreed to apply the Global Industry Standard on Tailings Management to the JEB Tailings Management Facility. The consequence of failure for the JEB Tailings Management Facility was analysed and classified in the “very high” category. With the JEB Tailings Management Facility in the “very high” category, compliance to the Global Industry Standard on Tailings Management was to be met by August 5, 2023.

This disclosure note constitutes the official publication in compliance with Principle 15.1, B and C of the Global Industry Standard on Tailings Management (GISTM). Note that 15.1, A only concerns new tailings facility projects.

2 Introduction

Orano Canada Inc.'s (OCI) McClean Lake Operation is situated in Northern Saskatchewan, Canada as shown in Figure 2.1 and 2.2. Figure's 2.3 and 2.4 depict the location of the JEB Tailings Management Facility (TMF) within the McClean Lake Operation. The JEB TMF is operated and maintained by OCI. Engineering support comes from an Engineer of Record (EOR) team and an Independent Tailings Review Board (ITRB).

The JEB TMF was a former open pit mine, converted to a tailings facility in 1999. The TMF has recently undergone expansion to store tailings above natural ground. The current Stage 1 expansion embankment of 457.5 masl has the capacity to store 1.5 Mm^3 of unconsolidated tailings once complete. The future Stage 2 expansion embankment to 468 masl will provide an additional 2.25 Mm^3 of unconsolidated tailings storage.

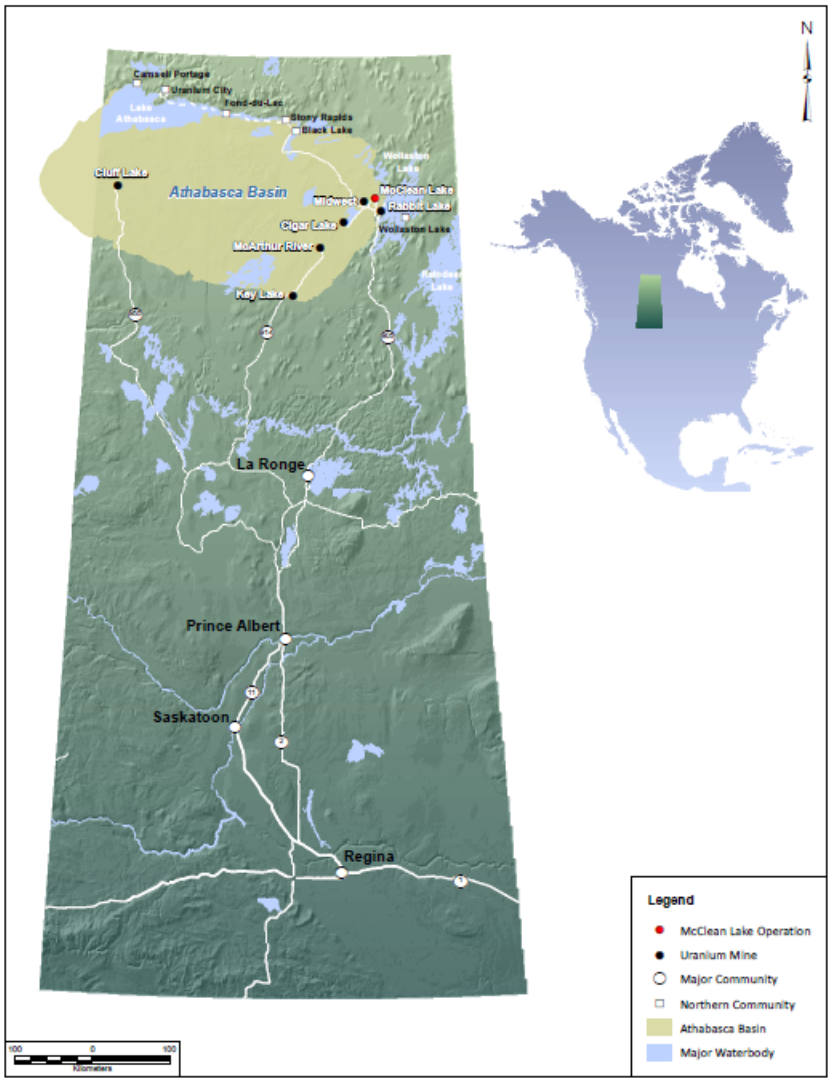

Figure 2.1 Location of the McClean Lake Operation

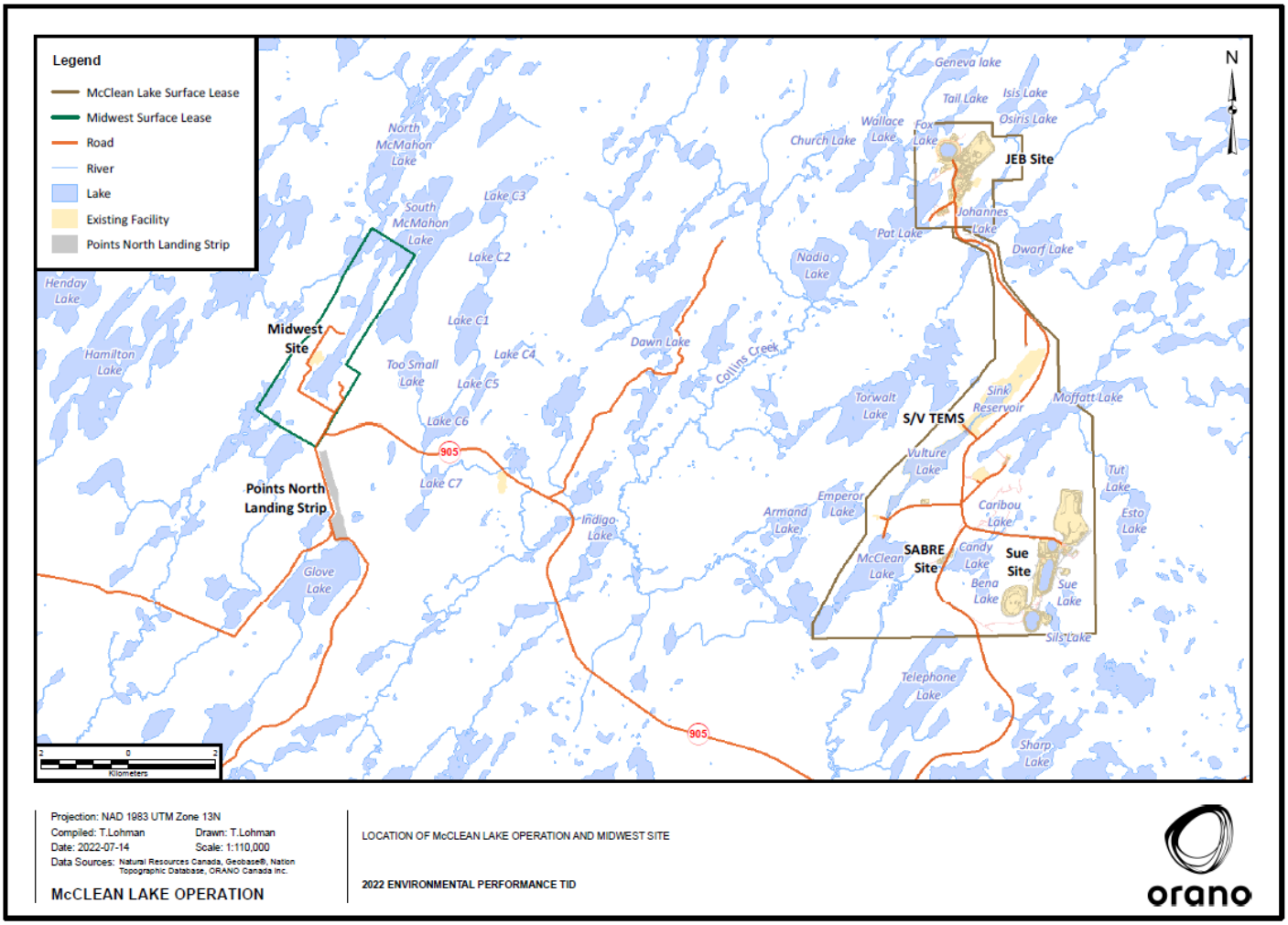

Figure 2.2 Location of the McClean Lake Operation

Figure 2.3 Location of the JEB TMF at the McClean Lake Operation

Figure 2.4 The JEB TMF at the McClean Lake Operation, looking North

3 Description of the Facility (B.1)

The JEB TMF embankment is constructed from crushed sandstone and the liner is constructed from a blend of crushed sandstone, till and bentonite. The liner portion is approximately 2 m thick, placed on the upstream side of the embankment and existing pit slopes (flattened as part of optimization of the facility). The liner extends down to the top of the sandstone. As shown in Figure 3.1.

Topography surrounding the JEB TMF is defined by muskeg-covered, poorly drained terrain. The lowest natural elevation corresponds to Pat Lake at approximately 443.5 masl, while the highest natural elevation corresponds to two drumlins at approximately 470 masl, located directly to the northeast and southeast of the JEB TMF (Golder Associates Ltd. 2019).

The general geology encountered in the JEB TMF area includes the following units in descending order:

- Till;
- Upper sandstone;
- Lower sandstone;
- Basement regolith; and
- Intact basement

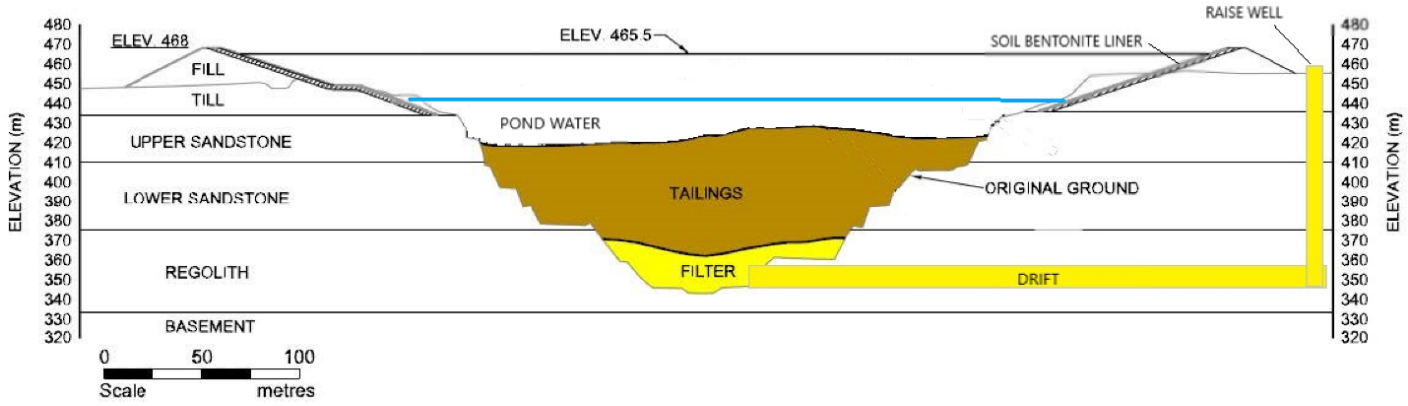

Figure 3.1 Cross section of the JEB TMF at future 468 masl elevation

The tailings are transported from the mill by pipeline to the JEB TMF where the tailings are deposited in a sub-aqueous manner. The JEB TMF was designed and constructed with a drift at the bottom of the pit and a raise well system. The raise wells are used for maintaining hydraulic containment and water level monitoring. In addition, the raise wells pumps return water back to the mill for use in the process. There is also a reclaim pump house on the JEB TMF pond water surface, which sends water from the JEB TMF pond to the JEB Water Treatment Plant.

A summary of the main characteristics of the JEB TMF are shown in Table 3.1.

Table 3.1 Main characteristics of the JEB TMF

Type	Downstream constructed rock fill embankment/dam, 3H:1V slopes, up stream soil bentonite liner
Lowest natural ground elevation (approximately)	448 masl
Current embankment and liner elevation	457.5 masl (embankment) 452.5 masl (liner)
Future embankment and liner elevation	468 masl
Operational freeboard	2.5 m (embankment 457.5 masl or less)

	1.5 m (embankment above 457.5 masl)
Storage Volume	1,500,000 m^3 (457.5 masl) 2,250,000 m^3 (468 masl)

4 Consequence Classification (B.2)

A preliminary dam consequence classification was provided by the EOR team for the JEB TMF (Golder Associates Ltd. 2021). The predicted incremental flood impacts due to a dam failure were summarized as the following:

- The population at risk within the inundation area is limited to workers who may be periodically in the area or recreational users in the area. The population could be one to ten people, corresponding to a consequence classification of Significant.
- Failure of the JEB TMF would result in flooding and debris flow downstream of the structure. Severe injury or loss of life could occur to a person in the inundation zone. It is expected that there would be between one to ten people that could experience loss of life from a failure, corresponding to a High consequence classification.
- Fox Lake and Pat Lake could receive flows of pond water and tailings solids if a failure of the JEB TMF were to occur. The flows could result in the loss or destruction of freshwater aquatic habitat, effects to water quality resulting in health effects to fauna, and long-term effects associated with metal leaching from tailings solids. Restoration may be possible but would require more than five (5) years to complete, corresponding to a Very High consequence classification.
- Failure of the JEB TMF would result in the cessation of operations that could realistically extend over several years. This would have an effect on the employees of the mine, as well as other businesses in the region. The effects may be considered to a small portion of the population (less than 500 people), corresponding to a Significant consequence classification.
- There is not any third-party infrastructure within the potential inundation zone. This corresponds to a Low consequence classification.

The preliminary dam consequence classification for the JEB TMF is presented in Table 4.1. Upon completion of the initial Dam Safety Inspection by the EOR in 2022 the consequence classification was confirmed. An overall ***Very High*** consequence classification is recommended by the EOR team.

Table 4.1: JEB TMF Preliminary Dam Consequence Rating Assessment (Golder Associates Ltd. 2021)

Factor	Consequence Classification
Potential Population at Risk	Significant
Potential Loss of Life	High
Environment	Very High

Factor	Consequence Classification
Health, Social, and Cultural	Significant
Infrastructure and Economics	Low
Overall Rating	**Very High**

5 Risk Assessment (B.3)

The EOR team conducted a Failure Mode and Effects Analysis (FMEA) for the JEB TMF (WSP Canada Inc. 2023). The FMEA provides an insight into priority areas to be addressed in the construction planning and operations monitoring. The following sections provide discussion of key themes in the Potential Failure Modes (PFMs), mitigation measures and how these could potentially be incorporated into the construction planning and operations. The PFM's serve as the risk register for the JEB TMF with the last update in July 2024. A summary of PFM categories are shown in Table 5.1.

Table 5.1: Potential Failure Modes Category Definitions (WSP 2023)

Category	Definition
I: Credible PFMs of Greatest Significance	Those PFMs of greatest significance considering need for awareness, potential for occurrence, magnitude of consequence, and likelihood of adverse response. Category I PFMs are those for which physical possibility is evident, fundamental flaw or weakness is identified, and conditions and events leading to failure seem reasonable and credible. The PFMs shall be subcategorized as urgent or less-urgent.
II: Credible PFMs Considered but of Lesser Significance	Those PFMs that are physically possible, but there is typically less urgency involved to respond to concerns. Category II PFMs are judged to be of lesser significance and likelihood than those of Category I. A PFM may be placed in Category II because there is no direct or indirect evidence or any indication of problem development; the loading required to initiate the potential adverse response is not as likely as for Category I; or the magnitude of consequences is not as significant as Category I PFMs. A surveillance and monitoring program is normally required for Category II. The PFMs shall be subcategorized as potentially significant or minor.
III: More Information or Analyses Needed in order to Classify	These PFMs to some degree lacked information sufficient to allow a confident

Category	Definition
	judgment of significance. As a result, additional investigative action or analyses is recommended.
IV: PFMs of Least Significance	Those PFMs are physically possible and of least significance because their likelihood is so remote that the failure is negligible, at least over the time period under consideration. The PFMs shall be subcategorized as insignificant or clearly negligible.
V: Other Considerations (Non-credible PFMs)	Candidate PFMs that were ruled out and not developed because the physical possibility does not exist, information came to light which eliminated the concern.

5.1 Key Focus Areas

Several important themes emerged in comparison of the PFMs. Only one Category I PFM is related to a physical failure of the embankment and the remaining ten Category I PFMs are related to the release of contaminated seepage:

1) **Embankment Construction and Care** – Seven of the 11 Category I PFMs are related to the JEB TMF construction and its maintenance: five PFMs highlight the importance of Quality Assurance/ Quality Control (QA/QC) of the materials during construction; one PFM highlights care of the Soil Bentonite Liner (SBL) surface during other construction activities; and one PFM highlights the importance of QA/QC of embankment foundation preparation. In general, multiple failure modes include mechanisms resulting from poor QA/QC during embankment construction. This FMEA stresses the need for adequate investigation prior to construction to verify ground conditions in advance of construction, and for strict controls during construction.

2) **Sampling and Instrumentation** – Three of the 11 Category I PFMS are related to JEB TMF monitoring. In addition to the potential for occurrence, these PFMs are significant because they highlight a need for awareness and a potential weakness associated with monitoring. It must be recognized that even the monitoring necessary to operate the JEB TMF safely has the potential to result in a failure mechanism: although sampling and testing tailings are fundamental to on-going evaluation and to validate the post decommissioning predictions, a poor tailings sample practice has the potential to fail the embankment and release contaminated seepage; and, although the instrumentation installed in the embankment is critical in assessing embankment performance, if care is not taken during installation there exists potential to release contaminated seepage.

3) **Pumping Capacity and Pond Operations** – Several PFMs are related to the maintenance of JEB TMF pond water elevations with one Category I PFM related to base drain pumping and loss of containment. Should the base drain become obstructed, the magnitude of consequence is considered great, and the approach to hydraulic containment within the JEB TMF throughout operations and decommissioning would require significant redesign.

5.2 Mitigation Measures and Additional Recommendations Summary

EMBANKMENT CONSTRUCTION AND OPERATION

An overarching recommendation for the JEB TMF throughout expansion is to continue construction QA/QC practices by implementation of the JEB TMF QA/QC Plan and to maintain as-built records. Field verification programs are recommended prior to expansion construction to improve confidence in the conditions expected. During operations, routine surveillance and monitoring of the embankment are necessary to observe and monitor changes related to downstream slope instability, internal erosion and seepage. Potential mitigations for PFMs related to downstream instability due to high porewater pressures and reduced shear strength are the following:

- A toe drain may be constructed to reduce porewater pressures and a stability berm at the toe of the embankment may provide a buttress for additional stability.
- Additional instrumentation may be installed in the foundation (e.g., slope indicators and piezometers). Potential mitigations for PFMs related to internal erosion are the following:
  - Formal ground disturbance programs may improve the tailings sample practice to mitigate soil bentonite liner damage beneath the tailings.
  - Standard well decommissioning practices may be implemented to mitigate preferential flow pathways.
  - Footprint preparation that includes a methodological approach to stripping soils mitigates the inadequate removal of buried organics that may result in differential settlement. Potential mitigations for PFMS related to the release of contaminated seepage are the following:
  - A seepage collection system may be constructed in the downstream embankment to mitigate releases to the environment.

OVERTOPPING AND POND WATER ELEVATIONS

Failures related to overtopping can be mitigated by implementing a higher freeboard during operations. Maintaining the design crest elevation is recommended and is the most beneficial when the soil bentonite liner and embankment is constructed to a constant elevation. To achieve a constant elevation in a single construction campaign, advanced construction sequencing and planning is recommended.

OPERATION, MAINTENANCE AND SURVEILLANCE CONSIDERATIONS

The Operations Maintenance and Surveillance (OMS) manual describes the plans and procedures that allow the JEB TMF to be operated in accordance with the design intent. The operating procedures will describe performance indicators and the response including actions to be taken if the performance criteria are not within the defined range. A Trigger Action Response Plan (TARP) is a tool to manage risk with trigger levels developed that consider the performance objective and response where performance levels are exceeded.

From the outcomes of the FMEA workshop, potential TARPs include performance indicators for management of water and seepage (e.g., pond water elevations and base drain hydraulic head) and other action levels for risks associated with, but not limited to, ground movement, erosion, pond water chemistry and piezometric levels.

Maintenance for the JEB TMF will identify all components with requirements to achieve performance objectives and will define the preventative and corrective actions to achieve these objectives. From the outcome of the FMEA workshop, maintenance is categorized into the expected preventative (e.g., maintenance of surveillance instruments such as the slope indicator probe), predictive (e.g., diverting surface runoff concentrated on the SBL crest) and corrective (e.g., design crest elevation maintenance) activities.

The OMS manual describes a surveillance program for the inspection and monitoring of activities to inform decision-making and to verify whether performance objectives, the risk management plan and design intent are being met. Surveillance includes site observations and inspections and instrument monitoring. Analysis of surveillance results should consider the expected range of observations or performance and the timeframes for data analysis reporting. Roles and timelines must be defined and the tools provided so that timely data is collected and reviewed by the appropriate personnel.

6 Breach and Inundation (B.4)

The EOR team conducted detailed dam breach analyses to obtain estimates of flood extents downstream of the JEB TMF embankment (Golder Associates Ltd. 2022). Two potential breach locations were selected for flood-induced overtopping scenarios:

- A potential breach dam breach of SW Dam at the JEB TMF.
- A potential breach dam breach of SE Dam at the JEB TMF.

The selected breach locations represent ‘worst-case’ scenarios for analyzing downstream impacts of hypothetical failures of the JEB TMF embankment under extremely wet hydrological conditions (i.e., PMP event). The detailed analyses were based on reasonably conservative dam breach parameters and used the topographic contour information obtained from Orano and other sources for the study area. For the detailed modelling, it was conservatively assumed that the entire tailings and water in the TMF above original natural ground would be released and that a dam breach would behavior as Newtonian (water-like) and was modelled entirely as water.

6.1 Effects of Potential Dam Failures

6.1.1 Southwest Dam

A hypothetical failure of the SW Dam would impact the downstream environment, including the Fox Lake, Wallace Lake, Pat Lake and Nadia Lake. In the event of an overtopping failure of the SW Dam, a total of 3.16 Mm³ of water and tailings was assumed to be released from the dam. The downstream affected areas are summarized as follows:

- The flood peak elevation immediately downstream of the dam was predicted to be 5.6 m above the ground elevation. The peak discharge and maximum flow velocity were estimated to be 2,570 m3/s and 6.1 m/s, respectively.
- The flood peak elevation at Pat Lake Inlet located 0.5 km downstream of the dam was predicted to be 2.4 m above the ground elevation. The peak discharge and flow velocity was estimated to be 2,240 m^3/s and 5.1 m/s, respectively.

- The flood peak elevation at Pat Lake outlet located 3.0 km downstream of the dam was predicted to be 0.7 m below the estimated channel bank elevation. Therefore, the flood flows would be contained within the channel. The peak discharge and flow velocity was estimated to be 78 m3/s and 0.6 m/s, respectively.

6.1.2 Southeast Dam

A hypothetical failure of the SE Dam would impact the downstream infrastructure and environment, including the Waste Rock Runoff Pond, a portion of the Mill Site Complex, the JEB TMF access road and Pat Lake. In the event of an overtopping failure of the SE Dam, a total of 1.53 Mm³ of water and tailings was assumed to be released from the dam. The downstream affected areas are summarized as follows:

- The flood peak elevation immediately downstream of the dam was predicted to be 3.8 m above the ground elevation. The peak discharge and flow velocity was estimated to be 533 m3/s and 4.5 m/s, respectively.
- JEB TMF access road located immediately downstream of the SE Dam would be overtopped with a maximum flow depth of 1.6 m. The peak discharge and flow velocity were estimated to be 526 m^3/s and 3.0 m/s, respectively.
- The flood peak elevation at Pat Lake Inlet located 0.7 km downstream of the dam was predicted to be 1.6 m above the ground elevation. The peak discharge and flow velocity was estimated to be 509 m3/s and 2.8 m/s, respectively.
- The flood peak elevation at Pat Lake outlet located 3.2 km downstream of the dam was predicted to be 1.4 m below the estimated channel bank elevation. Therefore, the flood flows would be contained within the channel. The peak discharge and flow velocity was estimated to be 27 m^3/s and 0.4 m/s, respectively.

7 Impact Assessment (B.4)

Two impact assessments were conducted for the implications of the unlikely failure of the JEB TMF embankment. One scenario modeled the impacts of a failure of the embankment at the Stage One elevation of 457.5 masl. The other scenario modeled the impacts at the final elevation of 468 masl. It should be noted in both hypothetical scenarios there are downstream environmental receptors but no downstream communities.

7.1 457.5 masl Scenario

The hypothetical failure of the JEB TMF embankment is predicted to result in impacted water quality in Fox Lake. Further downstream, exceedances of the available water quality guidelines (WQG) and benchmarks are predicted for the long-term WQG in Pat Lake, and the long-term WQG in Nadia Lake. Exceedances are not predicted in Upper Collins Creek from the JEB TMF failure, which indicates that potential negative effects are limited to Fox Lake, Pat Lake, and Nadia Lake.

The results of this screening level assessment indicate that the consequences of a dam failure at the JEB TMF would not have catastrophic effects on the Collins Creek watershed downstream of the facility. While water and sediment quality and the health of aquatic biota in Fox Lake would be affected and recovery of

the lake could take many months or years, it is not anticipated that water bodies downstream of Fox Lake would be negatively impacted over the short- or long-term (Arcadis Canada Inc. 2016).

7.2 468 masl Scenario

The hypothetical failure of the JEB TMF embankment is predicted to result in impacted water quality in Fox Lake. Further downstream, limited exceedances of drinking water guidelines are predicted in Pat Lake, with no other exceedances of the available water quality guidelines and benchmarks predicted in Nadia Lake and Upper Collins Creek from the JEB TMF embankment failure, which indicates that potential negative effects are limited to Fox Lake and Pat Lake.

In conclusion, the results of this screening level assessment indicate that the consequences of a JEB TMF embankment failure would not have catastrophic effects on the Collins Creek watershed downstream of the facility. While water and sediment quality and the health of aquatic biota in Fox Lake would be affected and recovery of the lake could take many months or years following remediation, it is not anticipated that water bodies downstream of Fox Lake would be negatively impacted over the short- or long-term (Canada North Environmental Services 2019).

8 Summary of Design (B.5)

The design of the JEB TMF embankments fall into two stages, the first stage of transition from pit to embankments to an elevation of 457.5 mas (current height). The second stage is the transition from an embankment elevation of 457.5 masl to 468 masl. Both stages have a design basis that follows appropriate guidelines, references and professional practice. Both stages were designed with personnel from the EOR company. It should be noted that Golder Associated Ltd. was acquired by WSP Canada Inc. However, the existing design team and EOR team are the same personnel.

8.1 457.5 masl Design

The Optimization and Expansion Stage 1 of the JEB TMF will allow for additional tailings storage capacity, Detailed design has been completed for various component earth structures associated with the JEB TMF Optimization Stage 2 and Expansion Stage 1, including i) till re-sloping and soil bentonite liner for the TMF Optimization Stage 2, ii) embankment and soil-bentonite liner for the TMF Expansion Stage 1, and iii) erosion and sediment control for the TMF Optimization Stage 2 and TMF Expansion Stage 1.

The TMF Optimization, to be completed in two stages, involves flattening the till slope to 3H:1V from the till/sandstone contact and construction of a soil-bentonite liner to elevation 443 masl. The construction of Optimization Stage 1 was completed in September 2013. It was confirmed that liner soil material could be produced on site by either crushing sandstone or screening till, and the designed soil-bentonite liner can be constructed to meet the technical specifications. The results of field and laboratory testing of the soil bentonite liner material as part of the Construction Quality Assurance for the Optimization Stage 1 are consistent with those laboratory tests conducted previously for the design of the TMF Optimization and TMF Expansion.

The TMF Expansion Stage 1 involves increasing the elevation of placed un-consolidated tailings to 452.0 masl. An embankment will be constructed around the TMF perimeter to elevation of 457.5 masl. The inside slope of the embankment will be lined with the soil-bentonite liner to contain the operating pond throughout

operations. The soil-bentonite liner system will be the same as that of the successfully constructed Optimization Stage 1. Construction drawings and technical specifications have been prepared for the following work packages:

- JEB TMF Optimization Stage 2;
- JEB TMF Expansion Stage 1 Embankment; and
- Waste Rock Pile Runoff Ponds and Diversion Channels.

The detailed design was based upon work previously completed as part of the JEB TMF Expansion, and existing information of site topography, foundation conditions, soil properties and groundwater conditions. Field verification will be required prior to the construction of each design component. Field verification will be provided by conducting a site topographical survey and geotechnical investigation of the site location under consideration. Additional groundwater level monitoring may be required in the vicinity of the component earth structures. Geotechnical and groundwater conditions such as the elevation of the groundwater table, the depth of peat across the site, and the foundation conditions beneath the proposed earth structures will be determined during the geotechnical investigation. Changes to the design of the new structure may be required upon completion of the geotechnical investigation if the geotechnical conditions are found to be different than those assumed during the design.

The majority of the TMF Expansion Embankment will be constructed of till or compacted waste rock fill with rock sizes up to 0.6 meters. While the compacted waste rock fill will have favourable mechanical and hydraulic properties for the embankment construction compared to till fill, its grain-size distribution may not be compatible with the soil-bentonite material. A transition material may be required between the compacted waste rock material and the soil-bentonite liner material to prevent the migration of fines from the soil-bentonite liner into the compacted waste rock material. An embankment fill test pad will need to be constructed prior to the construction of the embankment in order to design a transitional material if such transitional material is required. The Quality Assurance/Quality Control plan developed for the TMF Optimization and TMF Expansion may require to be updated prior to each construction stage to reflect current construction materials, construction methods, field and laboratory test procedures and standards, and incorporate the experience gained from previous construction stages. Construction materials such as till and sandstone waste rock are erodible. It is expected that surface erosion will occur, particularly after heavy precipitation events and spring runoff. Continuous monitoring and maintenance of the earth structures and surface drainage systems will be required. Monitoring of groundwater quality, seepage through the liner, erosion of earth structures and embankment stability will be required. Monitoring data obtained from early optimization construction and operation stages will be valuable source of information to confirm the design and performance of the structures, to identify any potential problems that need to be addressed prior to the next expansion stage of construction, and to provide inputs for the optimization of the design for the next construction stages (Golder Associates Ltd. 2018).

8.2 468 masl Design

Expansion Stage 2 of the JEB TMF will allow for additional tailings storage capacity. Detailed design has been completed for various component earth structures associated with the JEB TMF Expansion Stage 2 including: i) embankment and soil-bentonite liner, ii) erosion and sediment control, and iii) alternate site surface water management plan for the management of storm water runoff after the JEB TMF is raised above 457.5 masl and the transportation of runoff via gravity drainage from the site to the JEB TMF is no longer available.

Expansion Stage 2 will provide the ability to place un-consolidated tailings to an elevation of 465.5 masl. The Expansion Stage 2 embankment will be constructed as a downstream raise of the approved Expansion Stage 1 embankment (crest elevation 457.5 masl). The Expansion Stage 2 embankment will be constructed to an elevation of 468 masl. The inside slope of the Expansion Stage 2 embankment will be lined with a soil-bentonite liner to contain the operating pond throughout operations. The soil-bentonite liner system will be the same as that of the successfully constructed JEB TMF Optimization. Construction drawings and technical specifications have been prepared for the following work packages:

- JEB TMF Expansion Stage 2 Embankment;
- Modifications to the Storm Water Storage Pond; and
- The new Mill Site Runoff Pond.

The detailed design was based upon work previously completed as part of the JEB TMF Expansion, and existing information of site topography, foundation conditions, soil properties and groundwater conditions. Field verification will be required prior to the construction of each design component. Field verification will be provided by conducting a site topographical survey and geotechnical investigation of the site location under consideration. Additional groundwater level monitoring may be required near the component earth structure during operations. Geotechnical and groundwater conditions such as the elevation of the groundwater table, the depth of peat across the site, and the foundation conditions beneath the proposed earth structures will be determined during the geotechnical investigation. Changes to the design of the new structure may be required upon completion of the geotechnical investigation if the geotechnical conditions are found to be different than those assumed during the design.

The majority of the JEB TMF Expansion Stage 2 embankment will be constructed of till or compacted sandstone waste rock fill with rock sizes up to 0.6 meters. While the compacted waste rock fill will have favourable mechanical and hydraulic properties for the embankment construction compared to till fill, its grainsize distribution may not be compatible with the soil bentonite material. A transition material may be required between the compacted waste rock material and the soil-bentonite liner material to prevent the migration of fines from the soil-bentonite liner into the compacted waste rock material. An embankment fill test pad will need to be constructed prior to the construction of the embankment to design a transitional material if such transitional material is required.

The Quality Assurance/Quality Control plan developed for Expansion Stage 2 may require to be updated prior to construction to reflect current construction materials, construction methods, field and laboratory test procedures and standards, and incorporate the experience gained from previous construction.

Construction materials such as till and sandstone waste rock are erodible. It is expected that surface erosion will occur, particularly after heavy precipitation events and spring runoff. Continuous monitoring and maintenance of the earth structures and surface drainage systems will be required during operations.

Monitoring of groundwater quality, seepage through the liner, erosion of earth structure and embankment stability will be required. Monitoring data obtained from early optimization construction and operation stages will be a valuable sources of information to confirm the design and performance of the structures, to identify any potential problems that need to be addressed prior to the next expansion stage of construction, and to provide inputs for the optimization of the design for the next construction stages (Golder Associates Ltd. 2019).

9 Summary of Annual Performance (B.6 and B.7)

9.1 Dam Safety Inspection

The 2023 Dam Safety Inspection (DSI) of the JEB TMF was completed by Orano's Engineer of Record, WSP Canada (WSP). The DSI was conducted in accordance with the Canadian Dam Association (CDA) *Dam Safety Guidelines*, 2007 (Revised 2013). The site inspection was conducted on October 12, 2023 by representatives of WSP including the JEB TMF Engineer of Record and Orano and consisted of a visual inspection of the key features of the facility. The report also consisted of a review of instrumentation data.

The JEB TMF has a dam consequence classification of Very High. It is the repository for tailings resulting from uranium processing at the McClean Lake Mill.

Table 9.1 summarizes the condition ratings for the main components of the facility, based on observations from the 2023 DSI. Table 9.2 summarizes conditions from 2022 compared to 2023. Condition ratings have been assigned in accordance with WSP's condition rating system (WSP 2024):

- S = Satisfactory. Will fulfill intended purpose.
- F = Fair. Will fulfill intended purpose. Maintenance or further study required.
- P = Poor. May not fulfill intended purpose. Repair or modification required.
- U = Unsatisfactory. Will not fulfill purpose. Repair or modification required.
- N = Not inspected.

Table 9.1: 2023 JEB TMF DSI Deficiencies

ID Number	Location	Condition	Priority	Description / Recommended Action	Orano Action
Dam Safety Deficiencies					
I-DS-03	Downstream Dam Slope	S	High	**Seepage/Wet Areas:** Standing water was observed at the toe near 60° and water levels should be reduced. **Recommended Mitigation: Continue to** remove snow in the Northeast area prior to the spring melt. Continue pumping from the submersible pump inside the CSP sump in the northeast section to maintain water as low as practicable. Continuous pumping is required until the JEB TMF Pond elevation reaches 448 m ASL.	**Snow has been removed. Water was pumped from the sump until the pond reached 448 masl.** **Pumping was done after the snow melt and during heavy rain to keep the water level as low as practical.**
Facility Management Deficiencies					

ID Number	Location	Condition	Priority	Description / Recommended Action	Orano Action
II-FM-01	Downstream Dam Slope	S	Medium	**Surface Erosion:** Minor rilling was observed at the embankment toe near 270°. **Recommended Mitigation:** Fill depressions with traffic gravel and nominally compact.	
II-FM-04	Dam Crest	S	Low	**Depressions:** Minor rutting and depressions were observed along the crest near 350°. **Recommended Mitigation:** Fill depressions with traffic gravel and nominally compact.	**Depressions and ruts were filled in potions of the crest at approximately 90 degrees where water was observed to seep through the embankment**
Non-Conformances or Best Management Practices					
III-NC-01	Erosion Control Swale and Sedimentation Structures	S	Low	**Signs of Instability:** Minor sloughing of the outer berm was observed in Southeast corner of South Sedimentation Structure and should be monitored. **Recommended Mitigation:** Continue monitoring and repair if condition worsens.	
III-NC-03	Instrumentation	U	High	**Questionable Piezometer Readings:** ■ SI21-01-VW1 appears to be broken. B unit and temperature are consistently either 10.00 and -108.52, respectively otherwise are both blank. **Recommended Mitigation:** Rationalize need for replacement or abandonment and revised monitoring plan, as required.	**SI21-01-VW1: WSP confirmed this piezometer can be abandoned with no need to replace as there are other piezometers at the same depth which can be used.**
III-NC-04	Erosion Control Swale and Sedimentation Structures	S	Low	**Breach in Berm:** A breach in the erosion control berm at the South Sedimentation Structure was observed. **Recommended Mitigation:** The breached area should be monitored to ensure that runoff reports to the sedimentation trap.	**The area leading to the structure was regraded to direct runoff water into the erosion control structure.**
IV-BMP-01	Instrumentation	S	Low	**Piezometers:** VWP cable leads that encase the transducer wires sit unprotected at the surface, and consideration should be taken to protect the wires at all Monitoring Sections Where data loggers	

ID Number	Location	Condition	Priority	Description / Recommended Action	Orano Action
				appear to be detaching from the posts, they should be secured. **Recommended Mitigation:** Protect VWP cable leads at surface and secure dataloggers.	
IV-BMP-02	Erosion Control Swale and Sedimentation Structures	S	Low	**Grading and Cleanup:** The inlet for the south sedimentation structure required grading and cleanup at the time of the inspection. **Recommended Mitigation:** Grading and cleanup of the area completed in October of 2023.	**This was completed as part of the 2023 JEB TMF Construction.**

Table 9.2: Condition Rating Summary

Component	Condition			Notes
	2022	2023	Trend	
Upstream Slope: Soil-Bentonite Liner			↑	All previous deficiencies associated with the soil-bentonite liner were addressed during 2023 construction activities (I-DS-01, I-DS-02). During the DSI, one deficiency was noted but subsequently mitigated: ▪ soil-bentonite rip rap armour layer removed for an air-entry permeameter test (II-FM-05) and backfilled with rip rap after test completion
Downstream Dam Slope			↔	Snow removal, continuous pumping and maintenance is recommended to maintain functionality and address: ▪ Standing water near the northeast embankment toe (I-DS-03) ▪ Minor rilling near the western embankment toe (II-FM-01)
Upstream Slope: Till/Rockfill			↑	All previous deficiencies associated with the till/rockfill upstream slope were addressed during 2023 construction activities (II-FM-02, II-FM-03).
Dam Crest			↔	Maintenance is recommended to maintain functionality and address: ▪ Minor rutting and depressions (II-FM-04)
Erosion Control Swale and Sedimentation Structures			↑	Short circuiting runoff near the South Sedimentation Structure inlet was address during 2023 construction activities (III-NC-02). Monitoring and maintenance are recommended to maintain functionality and address: ▪ Minor sloughing of the outer berm of the South Sedimentation Structure (III-NC-01) ▪ Breach in the erosion control berm near the South Sedimentation Structure (III-NC-04) During the DSI, one deficiency was noted but subsequently mitigated: ▪ South Sedimentation Structure inlet required grading and completed following DSI (IV-BMP-02)
Instrumentation			↔	Deficiencies related to questionable piezometer readings were addressed during 2023 construction activities at VW21-02FB but SI21-01-VW1 appears to be broken. ▪ A revised monitoring plan is recommended (III-NC-03) Additional protection and repair are required to address: ▪ Unprotected VWP cable leads sitting at the surface at all Monitoring Stations and data loggers that are detaching from posts (IV-BMP-01)

Legend:

- Satisfactory
- Fair
- Poor
- Unsatisfactory
- Not Inspected

↑ Improving

↔ Unchanged

↓ Declining

NA = overall rating not available.

9.2 Environmental Monitoring

Groundwater monitoring and surface water monitoring is conducted throughout the McClean operation with specific groundwater wells and lakes that are sampled adjacent and downstream of the JEB TMF. This is part of Orano's larger environmental performance monitoring. Pre-development chemistry is compared to operational chemistry. The sampling frequency and parameters are outlined in the Saskatchewan Ministry of Environment (SMOE) Approval to Operate. The results are reported in Orano's Environmental Performance Technical Information Document (Orano 2022), the 2023 McClean Lake Operation Annual Report and provided to the SMOE and CNSC.

To date, only a few minor trends have been observed. The water chemistry observed in the vicinity of the mining areas and JEB TMF show that there are no major changes to the groundwater chemistry to date that would indicate unanticipated migration of solutes. Mostly, the trends are related to the temporary lowering of the water table from mining activities resulting in the oxidation of rock in muskeg areas to the northeast and southwest of the JEB TMF, and from the recharge through the waste rock piles which contains some residual nitrogen from blasting. Overall, the concentrations of dissolved constituents in groundwater remain low (Orano 2023). Locations of the groundwater monitoring wells and surface water monitoring locations are shown in Figures 9.1 and 9.2 Respectively.

Figure 9.1 JEB Site Groundwater Monitoring Locations

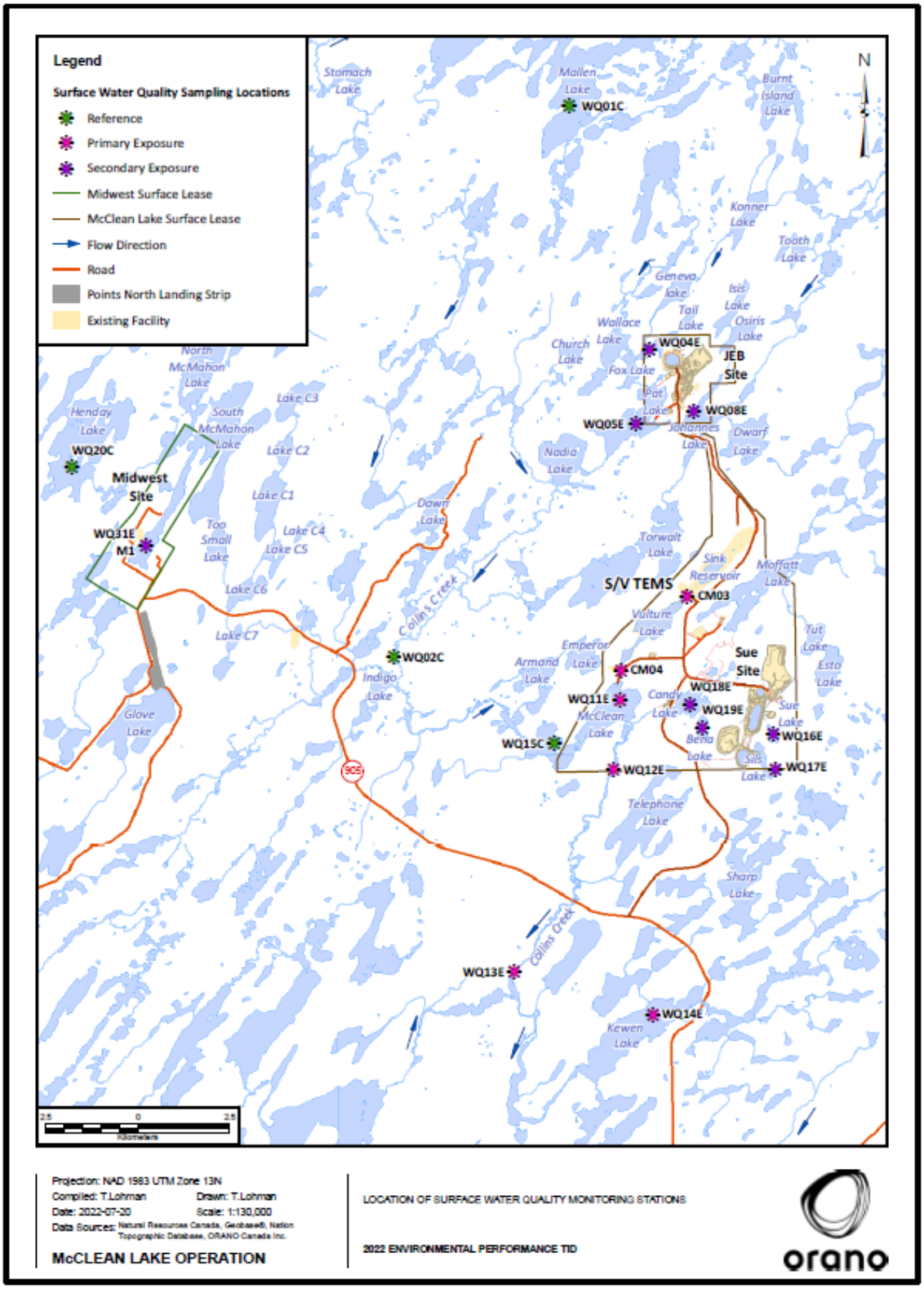

Figure 9.2 Surface Water Quality Monitoring Locations

10 Emergency Preparedness and Response Plan (B.8)

The Emergency Preparedness and Response Plan (EPRP) outlines instructions for emergencies related to the JEB TMF. Instructions on how to be prepared and how to respond to emergencies are established. The emergency situations covered by this document are related to various failure modes of the JEB TMF that could lead to harm to people and the environment.

The EPRP contains the contact information for key personnel in the event of an emergency. The general emergency response procedure is shown in Figure 10.1.

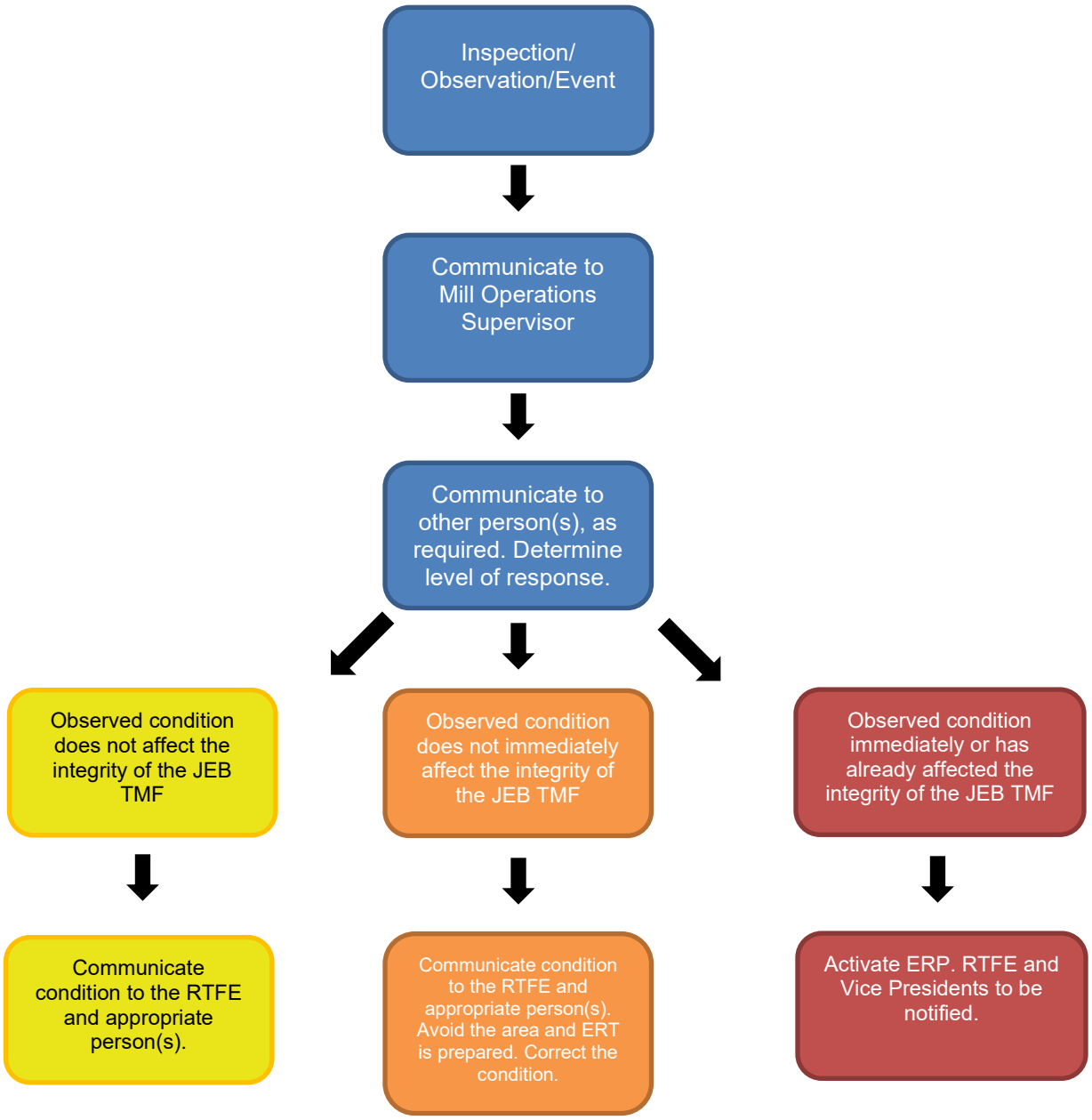

Figure 10.1 ERP general process

11 Independent Review (B.9)

Orano established an Independent Tailings Review Board (ITRB) for the JEB TMF. The ITRB provided comments and recommendations related to the information and studies presented by Orano and the Engineer of Record, WSP during the meeting held on June 4, 2024. The next meeting will be held in 2025. The summary of key comments, recommendations, mitigations, and response are shown in Table 11.1

Table 11.1: Summary of key comments, recommendations, and mitigations

Comment/ Recommendation No.	Comment/Recommendation	Mitigation/Response
2024-01	If not already completed, the ITRB recommends that the EOR complete an assessment to determine the breakthrough on the existing liner, and to evaluate the potential long-term impact on the effectiveness of the liner system.	The soil bentonite liner has been designed and analyzed for appropriate thickness and hydraulic conductivity for pond containment during operations only (Golder Associates Ltd. 2009). This has been confirmed through construction activity. The soil bentonite liner is not part of the long term solute transport for post operational conditions.
2024-02	The ITRB recommends that the EOR review the requirement for instrumentation and develop a plan for installing instrumentation if required. This is regarding the northern portion of the facility where dewatering wells were installed during 2023 construction.	The Engineer of Record is satisfied with the existing instrumentation in the liner and downstream of the facility.
2024-03	The ITRB recommends that the EOR confirm that the consequence of failure has been evaluated on the basis of the new guidance from CDA.	The 2023 guideline had not been adopted into the GISTM which Orano is committed to. Briefly, the 2023 guideline would likely decrease the consequence from "very high" to "high". However the facility has been designed using "extreme" parameters
2024-04	The ITRB reiterates these recommendations and recommend that the EOR in collaboration with Orano, more full develop the descriptions of potential mitigation measures that are required to mitigate the risks identified.	Orano and the Engineer of Record are satisfied with the risk assessment and mitigations identified as part of the FMEA.

Comment/ Recommendation No.	Comment/Recommendation	Mitigation/Response
	This is regarding the FMEA identified risks and mitigation measures.	
2024-05	The ITRB recommends that WSP engage with Dr. Benson regarding the long-term performance of the proposed closure cover system in the near-term, as cover performance in field tests typically requires several years of exposure to the elements and forces of nature in order to achieve adequate input for the final cover design.	Orano and the EOR team will continually review published, peer reviewed works and engage industry experts throughout the closure process.

12 Financial Assurance (B.10)

Uranium mining companies in Saskatchewan are required by the Saskatchewan Ministry of Environment (SMOE) and the Canadian Nuclear Safety Commission (CNSC) to develop preliminary decommissioning plans (PDP), estimate the associated costs for decommissioning, and provide financial assurance (FA).

The PDP is intended to provide a high-level concept of how the facility (in its current state) would be decommissioned and the FA provides financial guarantee ensuring funding is available to conduct the decommissioning activities identified. In keeping with the concept of lifecycle planning, the current updated PDP and FA have been prepared for the McClean Lake Operation with consideration of planned activities within a 5-year period, that is, to the end of 2025. The PDP and FA are updated nominally on a 5-year cycle. It is recognized that should the scope of development vary from that which is currently anticipated, future revisions to the plan will reflect those changes. Completed project developments are included in the PDP and FA calculation upon completion of construction.

Decommissioning requirements are incorporated into the feasibility and design of every development. Orano will provide detailed plans for regulatory approval prior to commencing final decommissioning activities. The current PDP and FA is intended to provide sufficient planning for decommissioning to ensure adequate financial assurances are in place to decommission the McClean Lake Operation should a governmental agency (i.e. SMOE) need to assume responsibility for decommissioning the site in the unlikely event Orano is unable to fulfill its obligations. Stakeholders will be engaged during the preparation of the detailed decommissioning plan.

There is an approved FA amount for the McClean Lake Operation. This amount has been accepted by both the federal and provincial regulators.

13 References

Arcadis Canada Inc. 2016. Environmental Consequence Assessment of the Unlikely Embankment Failure of the JEB Tailings Management Facility Expansion Stage 1.

Canada North Environmental Services. 2019. Environmental Consequence Assessment of the Unlikely Embankment Failure of the JEB Tailings Management Facility Expansion.

Golder Associates Ltd. 2009. JEB Tailings Management Facility Analysis and Design of Soil Liner for JEB Optimization.

Golder Associates Ltd. 2018. JEB Tailings Management Facility Optimization Stage 2 and Expansion Stage 1 Design Report.

Golder Associates Ltd. 2019. JEB Tailings Management Facility 468 m ASL Expansion Stage 2 Design Report.

Golder Associates Ltd. 2021. JEB Tailings Management Facility 468 Expansion Preliminary Dam Classification.

Golder Associates Ltd. 2022. Dam Breach Flood Inundation Study for the JEB TMF Embankment.

Orano Canada Inc. 2022. Technical Information Document 2022 Environmental Performance.

Orano Canada Inc. 2023. 359ML-400-PLA-Z-003 JEB TMF EPRP.

Orano Canada Inc. 2023. 359ML-400-OM-Z-004 JEB TMF OMS Manual

Orano Canada Inc. 2023. 2023 McClean Lake Operation Annual Report.

WSP Canada Inc. 2023. McClean Lake Operation, JEB TMF Expansion - Failure Modes and Effects Analysis Summary.

WSP Canada Inc. 2024. Orano McClean Lake Operation, JEB TMF Expansion – 2023 Dam Safety Inspection.

Appendix A GISTM Self-Assessment JEB TMF

GISTM - Orano Mining
Self-assessment year 2024

● Meets
◑ Partially meets
○ Does not meet
⊗ Not applicable

Locations / sites **JEB TMF McClean Lake, Saskatchewan, Canada**

Requirement		
TOPIC I: AFFECTED COMMUNITIES		
Principle 1 Respect the rights of project-affected people and meaningfully engage them at all phases of the tailings facility lifecycle, including closure.		
1.1 Demonstrate respect for human rights in accordance with the United Nations Guiding Principles on Business and Human Rights (UNGP), conduct human rights due diligence to inform management decisions throughout the tailings facility lifecycle and address the human rights risks of tailings facility credible failure scenarios. For existing facilities, the Operator can initially opt to prioritise salient human rights issues in accordance with the UNGP.	●	As a company member in the International Council on Mining and Metals (ICMM), Orano Mining subsidiaries adhere to ICMM's Mining Principles on human rights. Commitments to Principle 3.1 include conducting its business in compliance with the fundamental texts aimed at protecting human rights, namely: the UN Guiding Principles on Business and Human Rights, the fundamental conventions of the International Labour Organization, and the Guidelines for Multinational Enterprises issued by the Organization for Economic Cooperation and Development (OECD). Orano Mining values transparency and dialogue with its stakeholders, in particular on questions relating to human rights and management of grievances plays an essential part in the quality of its relations with stakeholders. Orano Mining deployed a grievance mechanism on all of its sites in 2020. Moreover, Orano Canada Inc.'s (OCI) Values Charter requires that the company's communication program is transparent, sincere and open. In keeping with these commitments, Orano Canada Inc.'s overarching communication program considers the exchange of information with neighboring Indigenous Nations and municipalities, the public and other potential stakeholders. The company's Public Information Program related to the McClean Lake Operation (MLO) describes how it ensures that information related to the health, safety and security of persons and the environment is communicated. Furthermore, the Canadian Nuclear Safety Commission (CNSC) decision to amend the uranium mine and mill licence held by OCI for its MLO for the expansion of the JEB TMF followed a public hearing held virtually on October 4, 2021 . In which, CNSC made participant funding available through its Participant Funding Program, and invited interventions from Indigenous Nations and communities, members of the public and stakeholders. In the event of a failure the Orano Mining corporate policy commits to restoration post failure.
1.2 Where a new tailings facility may impact the rights of indigenous or tribal peoples, including their land and resource rights and their right to self-determination, work to obtain and maintain Free Prior and Informed Consent (FPIC) by demonstrating conformance to international guidance and recognised best practice frameworks.	●	OCI Communications and Social Responsibility (CSR) Policy recognizes a responsibility to the Indigenous peoples and other community stakeholders in areas in which we have activities and is committed to their meaningful involvement in those activities. The subcommittees under each Collaboration Agreement (Ya Thi Nene, Pinehouse, English River First Nation) include local representation and meet quarterly to discuss uranium mining and community matters such as environmental protection, and health and safety. In the cases where OCI's undertakings may have an impact on traditional activities in the area, it meets with Indigenous leaders, their communities, and other interested parties to agree on consent and how each party will be accommodated or compensated. See Orano McClean Lake Operation Public Information Program CSR-100 Version 2. Most communities are very far from the site, all dam breach assessments show the flood mapping does not reach any downstream community. The agreement documents are confidential, if we need to show they can be requested.
1.3 Demonstrate that project-affected people are meaningfully engaged throughout the tailings facility lifecycle in building the knowledge base and in decisions that may have a bearing on public safety and the integrity of the tailings facility. The Operator shall share information to support this process.	●	The 2021 JEB TMF Expansion Indigenous Engagement Report. Section 8 of the 2022 McClean Lake Report also speaks to engagement. The collaboration agreements also cover this.
1.4 Establish an effective operational-level, non-judicial grievance mechanism that addresses complaints and grievances of project-affected people relating to the tailings facility, and provide remedy in accordance with the UNGP.	●	To meet the commitments of its CSR Policy, OCI provides a mechanism for transparent dispute resolution to strengthen trust-based relationships with Indigenous peoples and communities near its activities. Grievance mechanism in place https://www.orano.group/canada/en/our-commitments/community-engagement#communitiescollaboration Also mentioned in CSR Policy.
TOPIC II: INTEGRATED KNOWLEDGE BASE		
Principle 2 Develop and maintain an interdisciplinary knowledge base to support safe tailings management throughout the tailings facility lifecycle, including closure.		
2.1 Develop and document knowledge about the social, environmental and local economic context of the tailings facility, using approaches aligned with international best practices. Update this knowledge at least every five years, and whenever there is a material change either to the tailings facility or to the social, environmental and local economic context. This knowledge should capture uncertainties due to climate change.	●	The information is in the tailings Technical Information Document (TID): Social is from Section 4 considerations given to accidents and then clean up, downstream effects which have social impact and also Section 6.1. Environmental is all of Sections 4 and 6. Economic is covered by decommissioning and returning the property to the province. This captures uncertainty due to climate from a potential breach due to intense precipitation. When the TID is updated it can include more specifically the Failure Mode and Effects Analysis (FMEA); The JEB TMF Breach and Inundation study to show where and how far breach water goes, previous studies speaks to the effects of a breach on downstream water quality. The FMEA considers climate change from extreme precipitation (dam breach), to intense heat (desiccation and cracking). We have updated and documented knowledge with the FMEA and Breach & Inundation study, completed in December 2022. The TID will be updated every 5 years or when there is a material change.
2.2 Prepare, document and update a detailed site characterisation of the tailings facility site(s) that includes data on climate, geomorphology, geology, geochemistry, hydrology and hydrogeology (surface and groundwater flow and quality), geotechnical, and seismicity. The physical and chemical properties of the tailings shall be characterised and updated regularly to account for variability in ore properties and processing.	●	Tailings TID: Climate, Section 3.14. Geology, Section 2.3.3.1. Hydrogeology Section 7, Hydrology Section 4, Geotechnical is found in Construction documents and Sections 2.2.3 and 2.3.3.1. Physical and chemical properties of tailings, Sections 5 and 2.2. Geology, hydrology, hydrogeology, geotechnical and seismic are all included in the facility design reports.
2.3 Develop and document a breach analysis for the tailings facility using a methodology that considers credible failure modes, site conditions, and the properties of the slurry. The results of the analysis shall estimate the physical area impacted by a potential failure. When flowable materials (water and liquefiable solids) are present at tailings facilities with Consequence Classification of 'High', 'Very High' or 'Extreme', the results should include estimates of the physical area impacted by a potential failure, flow arrival times, depth and velocities, and depth of material deposition. Update whenever there is a material change either to the tailings facility or the physical area impacted.	●	Assessment of consequences to the receiving environment has been conducted. Flood mapping, velocity arrival time etc. has also been conducted using the most conservative breach location and fluid properties. The reports are included in the disclosure summary.
2.4 In order to identify the groups most at risk, refer to the updated tailings facility breach analysis to assess and document potential human exposure and vulnerability to tailings facility credible failure scenarios. Update the assessment whenever there is a material change either to the tailings facility or to the knowledge base.	●	JEB TMF Breach and Inundation study completed October 2022. There are no downstream human environments. There would only be Orano personnel potentially working in a downstream flow area. We now know and have document of potential human exposure and vulnerability to tailings flow.
Principle 3 Use all elements of the knowledge base - social, environmental, local economic and technical - to inform decisions throughout the tailings facility lifecycle, including closure.		
3.1 To enhance resilience to climate change, evaluate, regularly update and use climate change knowledge throughout the tailings facility lifecycle in accordance with the principles of Adaptive Management.	●	FMEA considers climate change with higher than design rainfall (PFM 7, 8, 29, 33, 34, 37, 51, 54).
3.2 For new tailings facilities, the Operator shall use the knowledge base and undertake a multi-criteria alternatives analysis of all feasible sites, technologies and strategies for tailings management. The goal of this analysis shall be to: (i) select an alternative that minimises risks to people and the environment throughout the tailings facility lifecycle; and (ii) minimise the volume of tailings and water placed in external tailings facilities. This analysis shall be reviewed by the Independent Tailings Review Board (ITRB) or a senior independent technical reviewer. For existing tailings facilities, the Operator shall periodically review and refine the tailings technologies and design, and management strategies to minimise risk and improve environmental outcomes. An exception applies to facilities that are demonstrated to be in a state of safe closure.	●	The 2011 pre-feasibility goes through alternative sites considered in Section 2. Minimizing risk to people and environment and volumes placed were not specifically considered in the pre-feasibility. However this has been shown with the Breach and Inundation study. Since this standard came out in 2020 the TMF was already in the expansion works. Therefore moving forward we use the Tailings Optimization and Validation Program (TOVP), Dam Safety Review (DSR), Dam Safety Inspection (DSI), to minimize risk and improve environmental outcomes. Tailings management and process is continually reviewed internally through tailings TID; The JEB TMF considered a new facility (i.e. the expanded portion)Embankment construction is considered a new facility. Options assessment completed in design reports Factor of Safety i.e. 1.5:1 to 4:1 slopes. The minimal volume of water and tailings is done with the reclaim line and raise well. The reports have been reviewed by the independent Tailings Review Board (ITRB).
3.3 For new tailings facilities, use the knowledge base, including uncertainties due to climate change, to assess the social, environmental and local economic impacts of the tailings facility and its potential failure throughout its lifecycle. Where impact assessments predict material acute or chronic impacts, the Operator shall develop, document and implement impact mitigation and management plans using the mitigation hierarchy.	●	Use breach analysis to assess failure impacts to social/environment and economic. FMEA considers potential failure scenarios due to climate change. The EPRP will mitigate the impacts after failure i.e. water sampling, contractor clean up. The Operations Maintenance and Surveillance (OMS) Manual has plans for inspections, Trigger Action Response Plans (TARPs) to help prevent this. The OMS and EPRP are finalized and will be operational by December 2023.
3.4 Update the assessment of the social, environmental and local economic impacts to reflect a material change either to the tailings facility or to the social, environmental and local economic context. If new data indicates that the impacts from the tailings facility have changed materially, including as a result of climate change knowledge or long-term impacts, the Operator shall update tailings facility management to reflect the new data using Adaptive Management best practices.	●	The Breach and Inundation Study assesses failure impacts to social/enviro and economic. If there is a change to the TMF or to the social/enviro/econ setting then update the assessment of failure impacts. If and when things change update the OMS manual to reflect the change. The DSI and preliminary consequence classification did assess the social, environmental and economic impacts of a tailings failure.

TOPIC III: DESIGN, CONSTRUCTION, OPERATION AND MONITORING OF THE TAILINGS FACILITY		
Principle 4 Develop plans and design criteria for the tailings facility to minimise risk for all phases of its lifecycle, including closure and post closure.		
4.1 Determine the consequence of failure classification of the tailings facility by assessing the downstream conditions documented in the knowledge base and selecting the classification corresponding to the highest Consequence Classification for each category in Annex 2, Table 1. The assessment and selection of the classification shall be based on credible failure modes, and shall be defensible and documented.	●	JEB TMF breach and inundation study is complete. Preliminary classification is complete. DSI is complete to confirm the consequence classification of "very high".
4.2 With the objective of maintaining flexibility in the development of a new tailings facility and optimising costs while prioritising safety throughout the tailings facility lifecycle: A. Develop preliminary designs for the tailings facility with external loading design criteria consistent with both the consequence of failure classification selected based on current conditions and higher Consequence Classifications (including 'Extreme'). B. Informed by the range of requirements defined by the preliminary designs, either: 1. Implement the design for the 'Extreme' Consequence Classification external loading criteria; or 2. Implement the design for the current Consequence Classification criteria, or a higher one, and demonstrate that the feasibility, at a proof of concept level, to upgrade to the design for the 'Extreme' classification criteria is maintained throughout the tailings facility lifecycle. C. If option B.2 is implemented, review the consequence of failure classification at the time of the Dam Safety Review (DSR) and at least every five years, or sooner if there is a material change in the social, environmental and local economic context, and complete the upgrade of the tailings facility to the new Consequence Classification as determined by the DSR within three years. This review shall proceed until the tailings facility has been safely closed according to this Standard. D. The process described above shall be reviewed by the Independent Tailings Review Board (ITRB)	●	The preliminary consequence classification is "very high". So the next analysis above is "extreme". A. The design uses the "extreme" 1/10,000" seismic analysis. The PMP event is 466 mm from Hopkins 1994 this is the "extreme" event that is meteorically possible and there fore is used. B. The DSI confirmed a consequence classification of "very high". "Extreme" events were used in design C. "Extreme" events used for PMP and seismic. D. This was all reviewed by the ITRB
4.3 The Accountable Executive shall take the decision to adopt a design for the current Consequence Classification criteria and to maintain flexibility to upgrade the design for the highest classification criteria later in the tailings facility lifecycle. This decision shall be documented.	●	Vice President of Safety, Health, Environment and Regulatory is assigned the role of Accountable Executive (AE). The 2022 DSI has the final consequence classification and it is accepted by Orano
4.4 Select, explicitly identify and document all design criteria that are appropriate to minimise risk for all credible failure modes for all phases of the tailings facility lifecycle.	●	FMEA is complete and covers risk assessment (confirmed by Engineer of Record) Design report presents design criteria Design criteria considered live document
4.5 Apply design criteria, such as factors of safety for slope stability and seepage management, that consider estimated operational properties of materials and expected performance of design elements, and quality of the implementation of risk management systems. These issues should also be appropriately accounted for in designs based on deformation analyses.	●	Addressed by the detailed design documents.
4.6 Identify and address brittle failure modes with conservative design criteria, independent of trigger mechanisms, to minimise their impact on the performance of the tailings facility.	●	Brittle failure was considered and assed under Potential Failure Mode (PFM) 11 in the FMEA.
4.7 Existing tailings facilities shall conform with the Requirements under Principle 4, except for those aspects where the Engineer of Record (EOR), with review by the ITRB or a senior independent technical reviewer, determines that the upgrade of an existing tailings facility is not viable or cannot be retroactively applied. In this case, the Accountable Executive shall approve and document the implementation of measures to reduce both the probability and the consequences of a tailings facility failure in order to reduce the risk to a level as low as reasonably practicable (ALARP). The basis and timing for addressing the upgrade of existing tailings facilities shall be risk-informed and carried out as soon as reasonably practicable.	●	Principle 4 is met, the Engineer of Record (EOR) and ITRB have all reviewed design.
4.8 The EOR shall prepare a Design Basis Report (DBR) that details the design assumptions and criteria, including operating constraints, and that provides the basis for the design of all phases of the tailings facility lifecycle. The DBR shall be reviewed by the ITRB or senior independent technical reviewer. The EOR shall update the DBR every time there is a material change in the design assumptions, design criteria, design or the knowledge base and confirm internal consistency among these elements.	●	DBM in designs reports, is reviewed by the ITRB. It is updated as needed by the EOR.
Principle 5 Develop a robust design that integrates the knowledge base and minimises the risk of failure to people and the environment for all phases of the tailings facility lifecycle, including closure and post-closure		
5.1 For new tailings facilities, incorporate the outcome of the multi-criteria alternatives analysis including the use of tailings technologies in the design of the tailings facility. For expansions to existing tailings facilities, investigate the potential to refine the tailings technologies and design approaches with the goal of minimising risks to people and the environment throughout the tailings facility lifecycle.	●	Pre-feasibility document is completed. Design report considered alternative slope angles.
5,2 Develop a robust design that considers the technical, social, environmental and local economic context, the tailings facility Consequence Classification, site conditions, water management, mine plant operations, tailings operational and construction issues, and that demonstrates the feasibility of safe closure of the tailings facility. The design should be reviewed and updated as performance and site data become available and in response to material changes to the tailings facility or its performance	●	Detailed design considered appropriate inputs and design to extreme external loads complete. TOVP results reviewed during design process.
5.3 Develop, implement and maintain a water balance model and associated water management plans for the tailings facility, taking into account then knowledge base including climate change, upstream and downstream hydrological and hydrogeological basins, the mine site, mine planning and overall operations and the integrity of the tailings facility throughout its lifecycle. The water management programme must be designed to protect against unintentional releases.	●	Design has the hydrology and hydrogeology components and considered the water balance of TMF and adjoining areas.
5.4 Address all potential failure modes of the structure, its foundation, abutments, reservoir (tailings deposit and pond), reservoir rim and appurtenant structures to minimise risk to ALARP. Risk assessments must be used to inform the design.	●	Design addresses credible failure modes (stability all inclusive, surface erosion, Section 6. Piping, Section 8.2.2 for 457.5 and 8.1.2 for 468). FMEA supports this.
5.5 Develop a design for each stage of construction of the tailings facility, including but not limited to start-up, partial raises and interim configurations, final raise, and all closure stages.	●	The design considers and implements a staged construction approach.
5.6 Design the closure phase in a manner that meets all the Requirements of the Standard with sufficient detail to demonstrate the feasibility of the closure scenario and to allow implementation of elements of the design during construction and operation as appropriate. The design should include progressive closure and reclamation during operations.	●	Conceptual design for closure has been completed.
5.7 For a proposed new tailings facility classified as 'High', 'Very High' or 'Extreme', the Accountable Executive shall confirm that the design satisfies ALARP and shall approve additional reasonable steps that may be taken downstream, to further reduce potential consequences to people and the environment. The Accountable Executive shall explain and document the decisions with respect to ALARP and additional consequence reduction measures. For an existing tailings facility classified as 'High', 'Very High' or 'Extreme', the Accountable Executive, at the time of every DSR or at least every five years, shall confirm that the design satisfies ALARP and shall seek to identify and implement additional reasonable steps that may be taken to further reduce potential consequences to people and the environment. The Accountable Executive shall explain and document the decisions with respect to ALARP and additional consequence reduction measures, in consultation with external parties as appropriate.	●	The Design Basis uses applicable parts of the Canadian Dam Association guidelines and "extreme" external loading events. Dam Safety Inspection (DSI): Conducted annually for the JEB TMF led by the EOR with the RTFE and AE involved. The most recent DSI was conducted in October 2023 with the report to issued in Q1 2024.
5.8 Where other measures to reduce the consequences of a tailings facility credible failure mode as per the breach analysis have been exhausted, and pre-emptive resettlement cannot be avoided, the Operator shall demonstrate conformance with international standards for involuntary resettlement.	●	The FMEA and Breach and Inundation Study show that resettlement is not necessary.

Principle 6 Plan, build and operate the tailings facility to manage risk at all phases of the tailings facility lifecycle, including closure and post-closure.		
6.1 Build, operate, monitor and close the tailings facility according to the design intent at all phases of the tailings facility lifecycle, using qualified personnel and appropriate methodology, equipment and procedures, data acquisition methods, the Tailings Management System (TMS) and the overall Environmental and Social Management System (ESMS) for the mine and associated infrastructure.	●	The corporate policy and tailings standard are finalized and in internal management system
6.2 Manage the quality and adequacy of the construction and operation process by implementing Quality Control, Quality Assurance and Construction vs Design Intent Verification (CDIV). The Operator shall use the CDIV to ensure that the design intent is implemented and is still being met if the site conditions vary from the design assumptions.	●	Programs in place for QAQC. Construction Record reports meets intent of CDIV. All designs have QAQC components.
6.3 Prepare a detailed Construction Records Report ('as-built' report) whenever there is a material change to the tailings facility, its infrastructure or its monitoring system. The EOR and the Responsible Tailings Facility Engineer(RTFE) shall sign this report.	●	Construction record reports have been approved by the EOR in the past before the standard existed. Moving forward the EOR and RTFE will also approve the reports.
6.4 Develop, implement, review annually and update as required an Operations, Maintenance and Surveillance (OMS) Manual that supports effective risk management as part of the TMS. The OMS Manual should follow best practices, clearly provide the context and critical controls for safe operations, and be reviewed for effectiveness. The RTFE shall provide access to the OMS Manual and training to all levels of personnel involved in the TMS with support from the EOR.	●	OMS manual is finalized and in internal management system
6.5 Implement a formal change management system that triggers the evaluation, review, approval and documentation of changes to design, construction, operation or monitoring during the tailings facility lifecycle. The change management system shall also include the requirement for the EOR to prepare a periodic Deviance Accountability Report (DAR), that provides an assessment of the cumulative impact of the changes on the risk level of the as-constructed facility. The DAR shall provide recommendations for managing risk, if necessary, and any resulting updates to the design, DBR, OMS and the monitoring programme. The DAR shall be approved by the Accountable Executive.	●	This is covered in section 6 of the tailings governance standard which is finalized and in internal management system
6.6 Include new and emerging technologies and approaches and use the evolving knowledge in the refinement of the design, construction and operation of the tailings facility.	●	Addressed by TOVP and in design reports (instrumentation technology).
Principle 7 Design, implement and operate monitoring systems to manage risk at all phases of the facility lifecycle, including closure.		
7.1 Design, implement and operate a comprehensive and integrated performance monitoring programme for the tailings facility and its appurtenant structures as part of the TMS and for those aspects of the ESMS related to the tailings facility in accordance with the principles of Adaptive Management.	●	Design report provides monitoring program (Section 11 for 457.5 and section 11 for 468). There is a section in the OMS manual to document monitoring for the tailings facility, taken from the design report recommendation. The OMS manual is finalized and in IMS
7.2 Design, implement and operate a comprehensive and integrated engineering monitoring system that is appropriate for verifying design assumptions and for monitoring potential failure modes. Full implementation of the Observational Method shall be adopted for non-brittle failure modes. Brittle failure modes are addressed by conservative design criteria.	●	Design report provides monitoring program (Section 11 for 457.5 and section 11 for 468). There is a section in the OMS manual to document monitoring for the tailings facility, taken from the design report recommendation. Trigger Action Response Plans are implemented for the observational approach. The OMS manual is finalized and in IMS
7.3 Establish specific and measurable performance objectives, indicators, criteria, and performance parameters and include them in the design of the monitoring programmes that measure performance throughout the tailings facility lifecycle. Record and evaluate the data at appropriate frequencies. Based on the data obtained, update the monitoring programmes throughout the tailings facility lifecycle to confirm that they remain effective to manage risk.	●	Design report provides monitoring program (Section 11 for 457.5 and section 11 for 468). There is a section in the OMS manual to document monitoring for the tailings facility, taken from the design report recommendation. Trigger Action Response Plans are implemented for the observational approach. The OMS manual is finalized andin IMS.
7.4 Analyse technical monitoring data at the frequency recommended by the EOR, and assess the performance of the tailings facility, clearly identifying and presenting evidence on any deviations from the expected performance and any deterioration of the performance over time. Promptly submit evidence to the EOR for review and update the risk assessment and design, if required. Performance outside the expected ranges shall be addressed promptly through Trigger Action Response Plans (TARPs) or critical controls.	●	Design report provides monitoring program (Section 11 for 457.5 and section 11 for 468). There is a section in the OMS manual to document monitoring for the tailings facility, taken from the design report recommendation. Trigger Action Response Plans are implemented for the observational approach. The OMS manual is finalized and in IMS
7.5 Report the results of each of the monitoring programmes at the frequency required to meet company and regulatory requirements and, at a minimum, on an annual basis. The RTFE and the EOR shall review and approve the technical monitoring reports.	●	The design report specifies the frequencies. The DSI will cover the reporting. The OMS has notes for frequencies Annual reporting requirements being met. Formal review by EOR/RTFE. The OMS manual is finalized and in IMS
TOPIC IV: MANAGEMENT AND GOVERNANCE		
Principle 8 Establish policies, systems and accountabilities to support the safety and integrity of the tailings facility		
8.1The Board of Directors shall adopt and publish a policy on or commitment to the safe management of tailings facilities, to emergency preparedness and response, and to recovery after failure.	●	Orano Canada, under the Orano mining corporate policy on tailings, includes response and recovery after failure.
8.2 Assess the hazards of the products of mining according to UN Globally Harmonised System of Hazard Classification and Labelling or equivalent relevant regulatory systems and communicate through safety data sheets and labelling as appropriate	●	The tailings governance standard document is complete which includes a Tailings Management System (Section 4) Environmental and social management systems (ESMS) covered by risk management and community engagement. Also the AE adopts the design to have ALARA to the environment
8.3 For roles with responsibility for tailings facilities, develop mechanisms such that incentive payments or performance reviews are based, at least in part, on public safety and the integrity of the tailings facility. These incentive payments shall reflect the degree to which public safety and the integrity of the tailings facility are part of the role. Long-term incentives for relevant executive managers should take tailings management into account.	●	Tailings responsibility positions should have Short Term Incentive (STI) based partly on personal objectives which include tailings safety through GISTM management, inspections etc. We are compliant with just that, by tailoring individual incentives in responsibility with tailings through their annual objectives. Orano does not have Long Term Incentives. Documentation will be HR-400 Performance and Development Process.
8.4 Appoint one or more Accountable Executives who is/are directly answerable to the CEO on matters related to this Standard. The Accountable Executive(s) shall be accountable for the safety of tailings facilities and for avoiding or minimising the social and environmental consequences of a tailings facility failure. The Accountable Executive(s) shall also be accountable for a programme of tailings management training, and for emergency preparedness and response. The Accountable Executive(s) must have scheduled communication with the EOR and regular communication with the Board of Directors, which can be initiated either by the Accountable Executive(s), or the Board. The Board of Directors shall document how it holds the Accountable Executive(s) accountable.	●	The accountable executive is Vice President of Safety, Health, Environment and Regulatory and reports to the CEO. This is documented in the tailings standard.
8.5 Appoint a site-specific Responsible Tailings Facility Engineer (RTFE) who is accountable for the integrity of the tailings facility, who liaises with the EOR and internal teams such as operations, planning, regulatory affairs, social performance and environment, and who has regular two-way communication with the Accountable Executive. The RTFE must be familiar with the DBR, the design report and the construction and performance of the tailings facility.	●	The RTFE is held by the Civil/Geotech Engineer position, documented in the tailings standard.
8.6 Identify appropriate qualifications and experience requirements for all personnel who play safety-critical roles in the operation of a tailings facility, including, but not limited to the RTFE, the EOR and the Accountable Executive. Ensure that incumbents of these roles have the identified qualifications and experience, and develop succession plans for these personnel.	●	Covered in the role descriptions and competency in tailings governance standard. Succession plan is covered by Section 3.
8.7 For tailings facilities with Consequence Classification of 'Very High' or 'Extreme', appoint an Independent Tailings Review Board (ITRB). For all other facilities, the Operator may appoint a senior independent technical reviewer. The ITRB or the reviewer shall be appointed early in the project development process, report to the Accountable Executive and certify in writing that they follow best practices for engineers in avoiding conflicts of interest.	●	There are two members that have been selected for the ITRB.

Principle 9 Appoint and empower an Engineer of Record		
9.1 Engage an engineering firm with expertise and experience in the design and construction of tailings facilities of comparable complexity to provide EOR services for operating the tailings facility and for closed facilities with 'High', 'Very High' and 'Extreme' Consequence Classification, that are in the active closure phase. Require that the firm nominate a senior engineer, approved by the Operator, to represent the firm as the EOR, and verify that the individual has the necessary experience, skills and time to fulfil this role. Alternatively, the Operator may appoint an in-house engineer with expertise and experience in comparable facilities as the EOR. In this instance, the EOR may delegate the design to a firm ('Designer of Record') but shall remain thoroughly familiar with the design in discharging their responsibilities as EOR. Whether the EOR or the DOR is in-house or external, they must be competent and have experience appropriate to the Consequence Classification and complexity of the tailings facility.	●	EOR has been selected and documented by proposal and work authorizations.
9.2 Empower the EOR through a written agreement that clearly describes their authority, role and responsibilities throughout the tailings facility lifecycle, and during change of ownership of mining properties. The written agreement must clearly describe the obligations of the Operator to the EOR, to support the effective performance of the EOR.	●	EOR has been selected and their role is documented by proposal, tailings governance standard and work authorizations.
9.3 Establish and implement a programme to manage the quality of all engineering work, the interactions between the EOR, the RTFE and the Accountable Executive, and their involvement in the tailings facility lifecycle as necessary to confirm that both the implementation of the design and the design intent are met.	●	Covered in tailings governance standard AE/RTFE/EOR sections.
9.4 Given its potential impact on the risks associated with a tailings facility, the selection of the EOR shall be decided by the Accountable Executive and informed, but not decided, by procurement personnel.	●	The work authorization containing the EOR was Approved by senior management.
9.5 Where it becomes necessary to change the EOR (whether a fi rm or an inhouse employee), develop a detailed plan for the comprehensive transfer of data, information, knowledge and experience with the construction procedures and materials.	●	Succession plan in scope of proposal. Also follow change management, Section 6 of tailings standard.
Principle 10 Establish and implement levels of review as part of a strong quality and risk management system for all phases of the tailings facility lifecycle, including closure		
10.1 Conduct and update risk assessments with a qualified multi-disciplinary team using best practice methodologies at a minimum every three years and more frequently whenever there is a material change either to the tailings facility or to the social, environmental and local economic context. Transmit risk assessments to the ITRB or senior independent technical reviewer for review, and address with urgency all unacceptable tailings facility risks.	●	Captured by FMEA. Redo FMEA every 3 years or when there is a change i.e. construction/expansion. Then have the ITRB review this.
10.2 Conduct regular reviews of the TMS and of the components of the ESMS that refer to the tailings facility to assure the effectiveness of the management systems. Document and report the outcomes to the Accountable Executive, Board of Directors and project-affected people. The review shall be undertaken by senior technical reviewers with the appropriate qualifications, expertise and resources. For tailings facilities with 'High', 'Very High' or 'Extreme' Consequence Classification, conduct the review at least every three years.	●	The EOR can review the OMS and EPRP to meet this objective. The EOR has done their review, the documents are finalized and are in IMS.
10.3 Conduct internal audits to verify consistent implementation of company procedures, guidelines and corporate governance requirements consistent with the TMS and aspects of the ESMS developed to manage tailings facility risks.	●	Section 8 of the tailings governance standard.
10.4 The EOR or senior independent technical reviewer shall conduct tailings facility construction and performance reviews annually or more frequently, if required.	●	EOR will conduct an annual performance review (inspection and data analysis).
10.5 Conduct an independent DSR at least every five years for tailings facilities with 'Very High' or 'Extreme' Consequence Classifications and at least every 10 years for all other facilities. For tailings facilities with complex conditions or performance, the ITRB may recommend more frequent DSRs. The DSR shall include technical, operational and governance aspects of the tailings facility and shall be completed according to best practices. The DSR contractor cannot conduct consecutive DSRs on the same tailings facility and shall certify in writing that they follow best practices for engineers in avoiding conflicts of interest.	●	Conduct independent DSR every 5 years starting from 2021 or when the ITRB recommends.
10.6 For tailings facilities with 'Very High' or 'Extreme' Consequence Classifications, the ITRB, reporting to the Accountable Executive shall provide ongoing senior independent review of the planning, siting, design, construction, operation, water and mass balance, maintenance, monitoring, performance and risk management at appropriate intervals across all phases of the tailings facility lifecycle. For tailings facilities with other Consequence Classifications, this review can be done by a senior independent technical reviewer.	●	ITRB contracts are in place and meetings have been conducted.
10.7 The amount of estimated costs for planned closure, early closure, reclamation, and post-closure of the tailings facility and its appurtenant structures shall be reviewed periodically to confirm that adequate financial capacity (including insurance, to the extent commercially reasonable) is available for such purposes throughout the tailings facility lifecycle, and the conclusions of the review shall be publicly disclosed annually. Disclosure may be made in audited financial statements or in public regulatory filings. Subject to the provisions of local or national regulations on this matter, Operators shall use best efforts to assess and take into account the capability of an acquirer of any of its assets involving a tailings facility (through merger, acquisition, or other change in ownership) to maintain this Standard for the tailings facility lifecycle.	●	There is financial assurance confirmed, as part of the McClean operations Preliminary Decommissioning Plan and Financial Assurance.
Principle 11 DEVELOP AN ORGANISATIONAL CULTURE THAT PROMOTES LEARNING, COMMUNICATION AND EARLY PROBLEM RECOGNITION.		
11.1 Educate personnel who have a role in any phase of the tailings facility lifecycle about how their job procedures and responsibilities relate to the prevention of a failure.	●	Covered in 'role competency' in tailings governance standard.
11.2 Establish mechanisms that incorporate workers' experience-based knowledge into planning, design and operations for all phases of the tailings facility lifecycle.	●	Covered by 'role competency' and AE/RTFE/EOR sections in tailings governance standard.
11.3 Establish mechanisms that promote cross-functional collaboration to ensure effective data and knowledge sharing, communication and implementation of management measures to support public safety and the integrity of the tailings facility.	●	Covered by AE/RTFE/EOR sections in tailings governance standard. Regular meeting with EOR team is conducted.
11.4 Identify and implement lessons from internal incident investigations and relevant external incident reports, paying particular attention to human and organisational factors.	●	Section 8 in tailings governance standard.
11.5 Establish mechanisms that recognise, reward and protect from retaliation, employees and contractors who report problems or identify opportunities for improving tailings facility management. Respond in a timely manner and communicate actions taken and their outcomes.	●	Whistle blower and grievance mechanisms in place (Orano employee handbook and for service providers). In the tailings governance standard it specifically speaks to recognize, reward and protect whistleblowers which is not in the HR guidelines.
Principle 12 ESTABLISH A PROCESS FOR REPORTING AND ADDRESSING CONCERNS AND IMPLEMENT WHISTLEBLOWER PROTECTIONS.		
12.1 The Accountable Executive shall establish a formal, confidential and written process to receive, investigate and promptly address concerns from employees and contractors about possible permit violations or other matters relating to regulatory compliance, public safety, tailings facility integrity or the environment.	●	Covered in Communication Section of tailings governance standard. Also covered in the Orano Canada CSR procedure for complaints/grievance, section 4. The AE will refer to this.
12.2 In accordance with international best practices for whistleblower protection, the Operator shall not discharge, discriminate against, or otherwise retaliate in any way against a whistleblower who, in good faith, has reported possible permit violations or other matters relating to regulatory compliance, public safety, tailings facility integrity or the environment.	●	Orano has a whistleblower policy in place in employee handbook that complies with this requirement.

TOPIC V: EMERGENCY RESPONSE AND LONG-TERM RECOVERY		
Principle 13 PREPARE FOR EMERGENCY RESPONSE TO TAILINGS FACILITY FAILURES.		
13.1 As part of the TMS, use best practices and emergency response expertise to prepare and implement a site-specific tailings facility Emergency Preparedness and Response Plan (EPRP) based on credible flow failure scenarios and the assessment of potential consequences. Test and update the EPRP at all phases of the tailings facility lifecycle at a frequency established in the plan, or more frequently if triggered by a material change, either to the tailings facility or to the social, environmental and local economic context. Meaningfully engage with employees and contractors to inform the EPRP, and co-develop community-focused emergency preparedness measures with project-affected people.	●	EPRP has TARPs from EOR and potential failure modes from the FMEA. There is reference to training and testing. Exercises were done.
13.2 Engage with public sector agencies, first responders, local authorities and institutions and take reasonable steps to assess the capability of emergency response services to address the hazards identified in the tailings facility EPRP, identify gaps in capability and use this information to support the development of a collaborative plan to improve preparedness.	●	Site services, first responders need to be aware, trained and capable of an emergency response related to hazards from the EPRP. EPRP is done and exercises done
13.3 Considering community-focused measures and public sector capacity, the Operator shall take all reasonable steps to maintain a shared state of readiness for tailings facility credible flow failure scenarios by securing resources and carrying out annual training and exercises. The Operator shall conduct emergency response simulations at a frequency established in the EPRP but at least every 3 years for tailings facilities with potential loss of life.	●	EPRP to be developed for expanded facility. Include in EPRP that training exercises and readiness need to be conducted by site services and first responders. Since there are no public services in the area it falls on the site first responders. ERPR is exercises were done.
13.4 In the case of a catastrophic tailings facility failure, provide immediate response to save lives, supply humanitarian aid and minimise environmental harm.	●	There are no downstream communities, however there is an immediate response plan in the event of failure in EPRP.
Principle 14 PREPARE FOR LONG-TERM RECOVERY IN THE EVENT OF CATASTROPHIC FAILURE.		
14.1 Based on tailings facility credible flow failure scenarios and the assessment of potential consequences, take reasonable steps to meaningfully engage with public sector agencies and other organisations that would participate in medium- and long-term social and environmental post-failure response strategies.	●	The OMS manual and EPRP cover communications post incident.
14.2 In the event of a catastrophic tailings facility failure, assess social, environmental and local economic impacts as soon as possible after people are safe and short-term survival needs have been met.	●	Remediation plan is in the EPRP.
14.3 In the event of a catastrophic tailings facility failure, work with public sector agencies and other stakeholders to develop and implement reconstruction, restoration and recovery plans that address the medium- and long-term social, environmental and local economic impacts of the failure. The plans shall be disclosed if permitted by public authorities.	●	OMS manual and EPRP will be distributed to authorities as needed. Note no communities nearby
14.4 In the event of a catastrophic tailings facility failure, enable the participation of affected people in reconstruction, restoration and recovery works and ongoing monitoring activities.	●	This is covered by the collaboration agreements and IMS document SCM-104-01.
14.5 Facilitate the monitoring and public reporting of post-failure outcomes that are aligned with the thresholds and indicators outlined in the reconstruction, restoration and recovery plans and adapt activities in response to findings and feedback.	●	There is already guidelines in place for release reporting, and are in the OMS/EPRP
TOPIC VI: PUBLIC DISCLOSURE AND ACCESS TO INFORMATION		
Principle 15		
15.1 Publish and regularly update information on the Operator's commitment to safe tailings facility management, implementation of its tailings governance framework, its organisation-wide policies, standards or approaches to the design, construction, monitoring and closure of tailings facilities. A. For new tailings facilities for which the regulatory authorisation process has commenced, or that are otherwise approved by the Operator, the Operator shall publish and update, in accordance with Principle 21 of the UNGP, the following information: 1. A plain language summary of the rationale for the basis of the design and site selected as per the multi-criteria alternatives analysis, impact assessments, and mitigation plans (Information may be obtained from the output of multiple Requirements including, but not limited to, Requirements 3.2, 3.3, 5.1, 5.3, 6.4, 6.6, 7.1 and 10.1); and 2. The Consequence Classification. (Requirement 4.1). B. For each existing tailings facility and in accordance with Principle 21 of the UNGP, the Operator shall publish and update at least on an annual basis, the following information: 1. A description of the tailings facility (information may be obtained from the output of Requirements 5.5 and 6.4); 2. The Consequence Classification (Requirement 4.1); 3. A summary of risk assessment findings relevant to the tailings facility (Information may be obtained from the output of Requirement 10.1);	●	Orano Mining publishes, and discloses the requirements under Principle 15.
15.2 Respond in a systematic and timely manner to requests from interested and affected stakeholders for additional information material to the public safety and integrity of a tailings facility. When the request for information is denied, provide an explanation to the requesting stakeholder.	●	Covered by Orano's grievance mechanism and CSR policy.
15.3 Commit to cooperate in credible global transparency initiatives to create standardised, independent, industry-wide and publicly accessible databases, inventories or other information repositories about the safety and integrity of tailings facilities.	●	Member of ICMM, Saskatchewan Mining Association and other industry groups. Orano has regular communication and sharing with the Canadian Nuclear Safety Commission and Saskatchewan Ministry Of Environment on JEB TMF related matters. To meet the commitments of its CSR Policy, OCI communicates with and provides opportunities for dialogue with Indigenous Peoples and interested stakeholders and consider those views in our activities in order to build consensus.