



NOVEMBER 21-23 &
DECEMBER 3-5, 2024



WORKSHOP REPORT

Advancing topics for
closure of the Diavik
Diamond Mine

PREPARED BY:



Bridge
Building
GROUP

Table of Contents

Introduction.....	3
Acronym List.....	4
Exploring Possible Long-term Futures.....	5
Technical Discussions.....	7
Demonstration of Long-term Chemical Stability.....	7
Closure Criteria for SW1 and SW2.....	7
Closure and Post-Closure Aquatics Effects Monitoring Program (AEMP).....	9
Cultural Use Criteria and Traditional Knowledge (TK) Monitoring Program.....	10
North Inlet Closure Activity.....	11
Change in Closure Activities Associated with Fish Habitat in the Pit Lakes.....	11
South WRSA.....	12
Revegetation Strategy.....	13
Dust.....	15
North Inlet Sediments.....	16
Contaminated Soils.....	17
What Will Be Left Behind Permanently.....	18
Appendix.....	20
Reference Materials.....	20
Participant Groups.....	21
Breakout Responses.....	23

Introduction

The Wek'èezhii Land and Water Board (WLWB) hosted a 3-day workshop in Yellowknife from November 21-23, 2024 and a 2½-day workshop in Dettah from December 3-5, 2024 as required by the [March 19, 2024](#), and [July 19, 2024](#) Reasons for Decisions. This workshop was aimed to advance associated water-quality-focused topics in preparation for the upcoming Water Licence Renewal and FCRP Version 1.1 proceedings.

The topics covered at the workshops include:

- [Demonstration of Long-term Chemical Stability](#)
- [Closure Criteria for SW1 and SW2](#)
- [Closure and Post-Closure Aquatics Effects Monitoring Program \(AEMP\)](#)
- [Cultural Use Criteria and Traditional Knowledge \(TK\) Monitoring Program](#)
- [North Inlet Closure Activity](#)
- [Change in Closure Activities Associated with Fish Habitat in the Pit Lakes](#)
- [South WRSA](#)
- [Revegetation Strategy](#)
- [Dust](#)
- [North Inlet Sediments](#)
- [Contaminated Soils](#)
- [What Will Be Left Behind Permanently](#)

The following workshop objectives were set to aid and streamline future Board decision-making processes:

- Help parties clarify positions and desired solutions, in consideration of the information available at this time and associated uncertainties.
- Discuss and share perspectives on outstanding topics to help DDML enhance its next FCRP submission and renewal application.

As recommended by the Board, this workshop was facilitated by neutral external facilitators. The facilitators were responsible for:

- Managing the conversation and guiding the process
- Creating an inclusive environment to ensure all voices are heard
- Developing a high-level workshop report to synthesize the main dialogue and themes

To support the objectives, the workshop featured breakout group discussions and facilitated exercises. These were designed to foster collaboration and generate new perspectives through cross-organizational interaction.

At the closing of the two workshops, participants reflected on the values important to the next stage of the mine closure process. Through the activity themes of **care**, **respect**, and **responsibility** were emphasized. Participants also stressed the need for **balance**, **clarity**, and **understanding trade-offs**, all while respecting the land, wildlife, and cultural connections.

The complete set of participant responses is available in the [Appendix](#).

This collective input underscores a shared commitment to closing the mine in a way that is collaborative and all parties indicated that there was work they could do internally to prepare in anticipation for the April FCRP submission.

Acronym List

For Organizational acronyms, please refer to the [Participant Group section in the Appendix](#).

- **AEMP** - Aquatic Effects Monitoring Program
- **CCME** - Canadian Council of Ministers of the Environment
- **EQC - Effluent Quality Criteria**
- **FCRP** - Final Closure and Reclamation Plan
- **HHERA** - Human Health and Ecological Risk Assessment
- **MZ** - Mixing Zone
- **PAR** - Performance Assessment Report
- **PFA** - Perfluoroalkyl and polyfluoroalkyl substances
- **POPC** - Parameter of Potential Concern
- **SNP** - Surveillance Network Program
- **SWALF** - Surface Water Action Level Framework
- **TK** - Traditional Knowledge
- **TPH** - Total Petroleum Hydrocarbons
- **WRSA** - Waste Rock Storage Area
- **WTP** - Water Treatment Plant

Exploring Possible Long-term Futures

During this opening activity for both workshops, participants explored four potential scenarios (**best case**, **most realistic best case**, **most realistic worst case**, and **worst case**) regarding the long-term (50-year) future of the Diavik mine site. This exercise aimed to deepen the collective understanding of possible outcomes, considering both known and unknown influencing factors.

Following the activity, participants explored insights and common threads across scenarios, surfacing the following key themes identified by the facilitators:

The complete set of participant responses is available in the [Appendix](#).

1. Limits of Control Over External Factors

Participants mainly focused on identifying the factors within Diavik's control versus external forces, particularly in extreme climate scenarios. Participants recognized the limits of Diavik's ability to manage issues emerging from the most extreme climate scenarios.

2. Cultural and Land-Use Considerations

A strong theme was the desire to protect Indigenous rights to use the land without fear or health risks. Participants emphasized the importance of accessible, culturally safe land use post-closure, considering how environmental factors, such as mixing zones and water quality, impact traditional activities like hunting, fishing, and drinking from natural water sources. The importance of risk communication was highlighted as participants discussed that perceived risk could lead to site avoidance.

3. Balancing Water Treatment and Environmental Health

The complexity of managing water quality while respecting cultural and environmental standards was a major theme. Permanent water treatment could improve water safety but may also disrupt habitats and traditional use areas due to noise and waste byproducts.

- Participants emphasized the importance of mixing zone sizes being reduced as much as possible and discussed the possibilities and limitations to doing so.

4. Climate Change Impacts

- Site Stability: In a worst-case scenario, the loss of permafrost could compromise stability, prompting the need for additional reinforcements like berms and buttresses (over and above the existing plan).
- Water Quality & Chemical Load: Concerns were raised over how lower water levels and increased chemical concentrations due to climate change might degrade water quality, affecting fish habitats and cultural use.
- The Role of the Government: Participants suggested that government (i.e., GNWT) guidance on extreme climate scenarios could be leveraged to help establish standards for infrastructure planning.

5. **Restoration to Pre-Development Conditions:** There was a majority interest in returning the mine site as close as reasonably possible to its original (pre-development) state with consideration to revegetation and land restoration activities. There was an interest to focus on native fauna and flora, with a preference for restoring those specific to the site and island over the broader region.
6. **Caribou as a Priority:** Ensuring the health of Caribou populations, their access to traditional migratory routes, and the overall safety of the site for Caribou emerged as a crucial priority in many discussions. Participants also communicated that all wildlife, not just Caribou, need to be considered.
7. **Contingency Planning and Adaptability:** With consideration to contingency planning, participants emphasized the importance of trying alternative approaches if the original plan proves ineffective, rather than repeating the same strategies.
8. **Engineering Solutions and Design Resilience**

Participants noted the robustness of Diavik's current engineering designs (e.g., cover on the NCRP and PKC spillway design) as these structures are built to be effective even in unfavourable scenarios.

 - Participants acknowledged that, over time, new challenges—such as potential pond formation in the PKC if permafrost is lost—might necessitate further adaptations.

Technical Discussions

Demonstration of Long-term Chemical Stability

This topic covers the issues of chemical stability and how stability will be monitored and evaluated (including duration) to determine whether closure has been successful.

Key references for the topic include:

- [Diavik Closure Water Quality Workshop Presentation](#) (pg. 8-15)
- [FCRP Reasons for Decision](#) section 3.6.1, 3.6.2, 3.6.5 (PDF pg. 27-34; 36-37)
- Attachment C provided by DDML in response to [FCRP comments](#), see DDML comment 3, included in Annex

During the dialogue, participants were asked to share perspectives on the following:

- How to evaluate/define the stability of closure conditions.
- How long stable chemical conditions need to be observed to meet closure criteria (and the associated rationale).

Discussion Themes and Perspectives

- Most participants agreed that an approach for defining chemical stability is needed in the FCRP.
- There is concern that not pre-defining stability could lead to a lengthy PAR review process, especially if the results are not clear or are negative.
- Parties wanted an increased understanding of what would be provided in the PAR.
- Many participants shared concerns about the proposed evaluation periods for monitoring runoff/mixing zone boundaries (e.g., 2 & 5 years), including whether this is sufficient to account for seasonality and a changing climate.
- All participants want clarity on what triggers would restart monitoring should something change or go wrong following successful closure.
- Many participants expressed confusion about the differences between the three monitoring programs, and their associated objectives and time horizons.

Closure Criteria for SW1 and SW2

This topic covers the proposed criteria to evaluate the SW1 and SW2 closure objectives, including whether they will protect aquatic life and meet the objective of waste minimization. It also covers mixing zones and site use post closure and water treatment as a contingency option.

Key references for the topic include:

- [Diavik Closure Water Quality Workshop Presentation](#) (pg. 16-36)
- [Pre-Workshop Materials and Updated Appendix X-27](#)
- [FCRP Reasons for Decision](#) section 3.9.1 (PDF pg. 45-59)
- Supporting information: DDMI provided operational Data with Pre Workshop Materials ([Part1](#), [Part 2](#), [Part3](#), [Part 4](#), [Part 5](#))

During the dialogue, participants were asked to share perspectives on the following:

- Site use post-closure and how long-term mixing zones affect these activities.
- Long-term treatment as a contingency and other alternatives.
- The limitations of each option (mixing zones vs. long-term water treatment).
- Support of mixing zones post-closure and if additional information is required.
- The proposed criteria's ability to protect aquatic life (and whether it's achievable).
- The proposed criteria's ability to meet the objective of waste minimization.
- Alternative approaches to developing SW2-1 closure criteria.

The complete set of participant responses from the breakout activity is available in the [Appendix](#).

Discussion Themes and Perspectives

Mixing Zones vs. Long-term Treatment

- No agreement about whether mixing zones are preferred to perpetual treatment.
- One party suggested adding a mixing zone assessment to the PAR.
- Many participants expressed a lack of understanding of the characteristics of anticipated mixing zones and their associated impacts.
- Parties would like the mixing zones to be as small as possible.
- Many participants expressed a desire to be able to use the land without fear.
- Some participants would like to receive more information on water treatment as a contingency (i.e., effectiveness, implementation) and whether other options were considered.

Closure criteria SW2-1: DDMI proposed new parameter-specific water quality criteria in its Pre-Workshop materials to replace the previously proposed SW2-1.

- Several participants stated that while they understand the site cannot be returned to what it was, they want it as close to pre-operation conditions as possible.
- Many participants stated they want criteria to be set as low as possible while being achievable.
- Some participants feel that aligning with federal guidelines would foster trust.
- Parties wanted to understand how operational data could be used to identify POPC.

Other Comments

- Some participants would like on-site engagement to help understand the proposed plans and potential impacts.
- Some participants would like DDMI to engage with stakeholders after the initial monitoring data on mixing zones and their concentrations is collected.
- Identified that it is unclear what would happen if a non-POPC were exceeded.
- Some participants indicated that Nunavut should be represented at these discussions as the NWT water flows to them.

“You can’t return it to the way it was before - you’re not god, you’re just Diavik”

Closure and Post-Closure Aquatics Effects Monitoring Program (AEMP)

This topic covers the issues associated with the proposed AEMP including the purpose, optimal locations for monitoring stations, and how findings from the AEMP should be evaluated and used.

Key references for the topic include:

- [Diavik Closure Water Quality Workshop Presentation](#) (pg. 37-46)
- [FCRP Reasons for Decision](#) section 3.7.3 (PDF pg. 38-42)
- [Proposed AEMP](#) PDF pg 123-242; figure of proposed sampling locations of PDF pg 182

During the dialogue, participants were asked to share perspectives on the following:

- The purpose of a post-closure AEMP.
- Optimal locations and associated purposes for monitoring stations.
- How the findings from the AEMP should be evaluated and used.
- If AEMP monitoring should be used to evaluate closure objectives.

Discussion Themes and Perspectives

- All parties agreed that the method for evaluating the successful closure should be linked to the AEMP results, and this linkage should be clear in the FCRP (i.e., not determined during the post-closure review period).
- Parties discussed DDMI’s suggestion that an additional criteria could be added to evaluate that AEMP results demonstrate stable and improving trends.
- Most participants want to understand how the AEMP will trigger response post-closure (e.g., Response Framework).
- Several Indigenous Governments and Organizations (IGOs) would like to see additional monitoring stations, including at different depths and areas of cultural interest.
- There was a suggestion for an additional AEMP station in shallow waters near Ponds 2 and 3 combined discharges.

Cultural Use Criteria and Traditional Knowledge (TK) Monitoring Program

This topic covers the issues of the TK Monitoring Program and how cultural use criteria should be applied in evaluating successful closure for water-related components.

Key references for the topic include:

- [Diavik Closure Water Quality Workshop Presentation](#) (pg. 47-53)
- [FCRP Reasons for Decision](#) sections 3.6.3 and 3.7.4 (PDF 34-45; 42-44)

During the dialogue, participants were asked to share perspectives on the following:

- Where to "house" the cultural use criteria.
(i.e., in what regulatory instrument and process for future review)
- Where cultural use criteria should apply for water quality-related components.
- How TK monitoring results should be used.
(e.g., Should they evaluate closure criteria? Who should do the evaluation?)

The complete set of participant responses from the breakout activity is available in the [Appendix](#).

Discussion Themes and Perspectives

- Parties shared mixed perspectives on where to "house" the criteria, but generally agreed that they need to allow for adaptive management.
- Some participants feel that inclusion in a water license could elevate their importance.
- Most participants agree that Cultural Use Criteria should apply to all areas with water quality objectives (North Inlet, mixing zones, discharge areas, etc.).
- Most participants agree that Cultural Use Criteria should apply beyond water.
- Most participants agree that a broad range of Indigenous perspectives (including Elders) should be included in the evaluation of Cultural Use Criteria and that these perspectives should be considered on a community-by-community basis.
- Some groups (i.e., FMRG and DKFN) who are not party to the Environmental Agreement (are therefore not part of EMAB) want to be included in the process to develop the TK Monitoring Program.
- Some participants indicated that the TK Monitoring Program could be used to inform other closure criteria (not just Cultural Use Criteria)
- Some participants indicated that TK should have the same weight as Western frameworks.
- Some participants would like DDMI to think broadly about communicating the results of monitoring efforts (e.g., radio, Facebook, schools, etc.).

North Inlet Closure Activity

This topic covers whether/how the North Inlet (NI) should be reconnected to Lac de Gras at closure. This includes the discussion of Closure Objective NI3, approved closure activity, and contingency options for the North Inlet.

Key references for the topic include:

- [Diavik Closure Water Quality Workshop Presentation](#) (pg. 54-60)
- [FCRP Reasons for Decision](#) section 3.12 (PDF pg. 82-89)
- [Previous Analysis of Contingency Options](#) (Provided with CRP Version 4.0; PDF pg. 183-232)

During the dialogue, participants were asked to share perspectives on the following:

- The approved North Inlet closure objective NI3.
(NI3: suitable fish habitat in the North Inlet)
- The pros and cons of the proposed contingency options.

Discussion Themes and Perspectives

- No agreement with respect to whether fish access to the NI should be allowed, IGOs need time and information to discuss with their communities.
- One party expressed concern that it may be impossible to keep fish out in the long term if that is the selected option.
- Parties noted that if the option to allow fish passage is selected, the language of closure objective NI3 and associated criteria may need to be reviewed.
- Some participants wanted to expand criteria beyond the assessment of TPH fraction 3 (discussed further in the [North Inlet Sediments](#) discussion)
- Many participants were unable to share recommendations as more engagement is needed with the community to evaluate the options.

Change in Closure Activities Associated with Fish Habitat in the Pit Lakes

This topic covers the DDML proposal to no longer construct fish habitat in the pit lakes at closure.

Key references for the topic include:

- [Diavik Closure Water Quality Workshop Presentation](#) (pg. 69-78)
- [FCRP Reasons for Decision](#) section 3.13.3 (PDF pg 98-101)

During the dialogue, participants were asked to share perspectives on the following:

- Whether having no enhanced (i.e., constructed by DDML) fish habitat in the pits is acceptable.

Discussion Themes and Perspectives

- No consensus about whether fish habitat should be constructed in the pits.
- Some participants expressed concern about risks to fish in the flooded pits (e.g., leftover infrastructure, oil residue).
- Many participants would like more dialogue on linking TK to associated monitoring programs.
- Some participants suggested a definition for “suitable” habitat be included in the FCRP.
- Some participants feel the approach to making decisions around fish habitat feels fragmented and would appreciate a more holistic discussion.
- Some participants want to see a focus on returning the pit lakes to their original state (or as close as possible).
- Some participants suggested that bringing Elders and IGOs to visit the site could inspire more confidence and generate ideas for what is possible with the site.
- A few participants expressed discomfort that the pit lakes were originally supposed to be enhanced for fish habitat, and now offsetting is happening in Frame Lake instead.

South WRSA

This topic was to seek input on the final landform of the South WRSA in consideration of the Board decision to require “the final SCRP Design to reflect the slope of NCRP unless new evidence suggests that this steeper slope is supported by Parties.”

Key references for the topic include:

- [Diavik Closure Workshop 2 Presentation](#) (pg. 8-16)
- [WLWB Decision on FCRP v1.0](#), Section 3.9.5 (starts PDF pg. 70, printed pg. 67)
- [FCRP v1.0](#); Appendix X-17 (starting on PDF pg. 1)

During the dialogue, participants were asked to share perspectives on the following:

- The proposed final South WRSA landform and how it will match the aesthetics and natural conditions of the surrounding area (W2, SW9).
- The proposed final South WRSA landform and how it will provide safe passage for Caribou and other wildlife (SW10).
- The desired final landform for the South WRSA (i.e., slope, height, footprint and overall shape).

Discussion Themes and Perspectives

- The proposed steep sides do not align with the surrounding landscape and will not enable Caribou passage.
- Most participants stated that they want to see the South WRSA reduced in size as much as possible (by finding uses for as much rock as possible)
- Parties want the South WRSA sloped at an angle that is similar to the North WRSA

Revegetation Strategy

This topic provided an opportunity for Parties to discuss and provide feedback on the proposed revegetation and approach and how successful revegetation will be evaluated.

Key references for the topic include:

- [Diavik Closure Workshop 2 Presentation](#) (pg. 18-42)
- [WLWB Decision on FCRP v1.0](#), Section 3.9.4 (starts PDF pg. 65)
- [FCRP v1.0](#), Appendix X-9

During the dialogue, participants were asked to share perspectives on the following:

- The purpose of revegetation of the Diavik site at closure. (*Purpose*)
- How and when successful revegetation could be evaluated. (*Evaluation*)
- If revegetation is not working, the point other options should be considered. (*Contingency Planning*)
- Where vegetation coverage is desired post-closure and where active should revegetation occur to achieve this. (*Revegetation Approaches & Coverage*)
- The plant species that should be included in active revegetation. (*Species*)
- The surface prep and soil amendments for active and/or passive revegetation. (*Surface Preparation*)
- The appropriate closure criteria for assessing successful revegetation. (*Closure Criteria*)

The complete set of participant responses from the breakout activity is available in the [Appendix](#).

Discussion Themes and Perspectives

Purpose

- All parties want to see the site vegetation return (as much as possible) to pre-existing conditions.
- Parties are disappointed with the pace at which successful revegetation is expected to occur under the current proposal.
- Most participants believe that a solely passive approach to revegetation is not sufficient and does not adequately demonstrate DDML's accountability and effort toward their original commitments.

Evaluation

- Many participants agree that an evaluation approach that focuses on germination is not sufficient.
- Parties agree that evaluation of successful revegetation should occur more frequently than the current proposal (while some also acknowledge that expecting monitoring and evaluation for 100 years is not reasonable).
- Parties agree that efforts should be made to course correct if results are not trending positively earlier than the current proposal.
- Suggestions for additional approaches to evaluate successful revegetation include visual observations of cover and composition (especially in relation to preexisting conditions), presence of key species (e.g., lichen for Caribou), and overall trajectory towards a self-sustaining status.
- Interest in linking revegetation monitoring and evaluation with the TK Monitoring program.

Contingency Planning

- Several participants expressed a lack of understanding of the current contingency proposal.
- Many participants suggested that contingencies should include activities that are different from the baseline strategy (i.e., they should not just repeat the same approach and hope for different outcomes).

Revegetation Approaches & Coverage

- Most participants agree that a mix of active and passive revegetation is appropriate.
- Some participants suggest that active revegetation could accelerate progress toward better habitat and cultural use.
- Some participants want to see vegetation on roads, laydown, dykes, and shorelines.
- Some participants want to see active revegetation on roads and laydowns.
- Parties expressed less concern about revegetation success at ground level (i.e., passive revegetation may be appropriate) and more concern about success at higher elevations (i.e., active revegetation may be appropriate).
- While participants discussed the pros and cons of active revegetation on the WRSAs, there was no consensus.
- Parties generally agreed that the PKC should be passively revegetated and monitored for any negative impacts on wildlife.
- Parties expressed interest in using additional active vegetation methods for scarification and seeding (e.g., addition of till, containers, transplants, plugs, cuttings)

Species

- Parties agreed that species used in revegetation should be those native to the Island (e.g., Lichen, Blackberry, Willow, Blueberry, Cranberry, and medicinal plants in general).

Surface Preparation

- Some participants suggest the use of till on rock to support revegetation.
- Request to investigate different “ripping” depths for Caribou ‘passability’ and revegetation potential.
- Several participants expressed a lack of understanding of the current proposal for surface preparation options.
- Some concern was expressed about the use of fertilizer and associated potential aquatic impacts.

Closure Criteria

- Parties did not suggest closure criteria for successful vegetation but discussed similar options as referenced above under the Evaluation heading.
- Request for more engagement with DDML to determine the criteria.

Other

- Important for DDML to leverage the historical TK provided and share with participants how they considered each recommendation.
- Request for DDML to clarify how they considered each of the recommendations in the University of Alberta research report in the submission of the FCRP.

Dust

This topic covers the issue of the impacts of dust post-closure on the mine site and how it could/should be evaluated as a part of closure criteria.

Key references for the topic include:

- [Diavik Closure Workshop 2 Presentation](#) (pg. 44-50)
- [WLWB Decision on FCRP v1.0](#), Section 3.9.4 - Closure Objective SW4 (starts PDF pg. 64)
- [FCRP v1.0](#), Appendix X-9 (starts PDF pg. 36)
- [FCRP v1.0](#), Appendix VI-3.1.5 (starts PDF pg. 32)

During the dialogue, participants were asked to share perspectives on the following:

- How to evaluate whether dust is affecting the palatability of vegetation to wildlife.
- Additional closure criteria that could help measure the associated closure objective.
- The length of time this should be monitored.

Discussion Themes and Perspectives

- Parties agreed that this closure objective (i.e., palatability of vegetation) will be hard to assess/quantify directly and perhaps could be reworded/revisited.
- Parties suggested the following options to help assess the impact of dust on wildlife: zone of influence analysis, Caribou collar data, wildlife cameras, audio loggers, lichen and/or tundra health compared to reference sites, systematic wildlife surveys, air quality monitoring station, lab analysis of field samples, Elder and TK Holder observations.
- Parties did not discuss the duration of monitoring to evaluate objectives.

North Inlet Sediments

This topic covers the issue of sediment evaluation within the North Inlet (NI) in relation to Lac de Gras reconnection requirements and closure criteria.

Key references for the topic include:

- [Diavik Closure Workshop 2 Presentation](#) (pg. 52-58)
- [WLWB Decision on FCRP v1.0, Section 3.12.2 \(PDF pg. 85-88\)](#)

During the dialogue, participants were asked to share perspectives on the following:

- The evidence needed prior to the reconnection of the North Inlet (NI) to Lac de Gras (e.g., required in the final sediment investigation).
- The need for additional sediment closure criteria (i.e., for additional parameters).
- Whether visible sheen should be a closure criterion.
- Whether sediment toxicity should be a closure criterion.
- Whether Board approval is needed prior to the reconnection of the North Inlet.

Discussion Themes and Perspectives

- Most participants suggested that water and sediment quality must be safe and stable for aquatic life before reconnection.
- Some participants want F2 assessed prior to the reconnection of NI.
- Some participants are unsure whether fish should be able to enter the NI, regardless of the quality of the water
- Some participants expressed concern about possible contaminant buildup in the NI if the barrier is impermeable to water
- Parties agreed that a closure criterion associated with sheen should be included, possibly as a cultural use criterion and/or monitored via the TK Monitoring Program.

- Some participants suggested additional criteria for:
 - Sediment toxicity (e.g., *Hyalella azteca*)
 - Metals in sediments
 - Any hydrocarbon above guidelines (i.e., more than just F3)
- Some parties stated that Board approval is needed prior to NI reconnection, while other parties indicated that inspector approval is sufficient, as long as associated data is shared publicly, and closure criteria are clear and agreed upon in advance.
- Request to change the name of the TK program to TK Monitoring Program (as opposed to TK Watch Program).

Contaminated Soils

This topic covers the issue of contaminated soils (hydrocarbon and non-hydrocarbon contaminants), how they should be managed to meet closure criteria, and whether additional closure criteria are required.

Key references for the topic include:

- [Diavik Closure Workshop 2 Presentation](#) (pg. 60-73)
- [WLWB Decision on FCRP v1.0 section 3.10.4](#) (PDF pg., 80-81)
- [WLWB Decision on FCRP v1.0, Section 3.14.3](#) (starts PDF pg. 107)
- [FCRP v1.0; Appendix X-11](#) (starts PDF pg. 65)

During the dialogue, participants were asked to share perspectives on the following:

Hydrocarbon Contaminated Soils

- The pros and cons associated with each option in the soil contamination management framework.
- Whether all proposed options in the soil contamination management framework should be 'on the table'.
- The circumstances where an on-site disposal (in situ, or in the WRSA) would be appropriate.

Non-Hydrocarbon Contaminated Soils

- When contaminated sediments (those beyond hydrocarbon-contaminated soils) require reclamation activities.
- How DDMI should determine which parameters (i.e. metals and nutrients) require closure criteria.

The complete set of participant responses from the breakout activity is available in the [Appendix](#).

Discussion Themes and Perspectives

Overall

- Many participants struggled to engage with the soil contamination management framework due to not having information on contamination severity and soil volume (i.e., pre-Environmental Site Assessment).
- Some participants expressed a lack of buy-in to the HHERA due to a lack of engagement during its development.
- Many participants noted that communicating risks will be challenging given the technical nature of the topics and the above-noted lack of engagement on the HHERA (i.e., why keeping contaminated soils on site could be the most appropriate/safest option).

Hydrocarbon Soil Contamination

- All parties expressed general support for landfarming.
- Parties had mixed perspectives on off-site disposal of contaminated soils; this ranged from no offsite disposal (i.e., due to GHG impacts, problem displacement, etc.) to only off-site disposal for all soils contaminated above agricultural limits.
- Many participants expressed concern about the shallow burial/rock cover option and suggested the need to evaluate this on a location-specific basis.
- Some participants expressed a need for confidence that the landfill will remain frozen in WRSA in consideration of climate change.
- Suggestion for Parties visits to see areas of contamination, examples of spill remediation, and opportunity to validate remediation approach.

Non-Hydrocarbon Soil Contamination

- Some participants noted concerns with respect to bioaccumulation and the potential for attracting wildlife (e.g., glycol sweetness).
- Parties wanted to understand how other parameters (i.e., beyond glycol and hydrocarbons) would be evaluated.
- Some participants expressed general concern about landfilling these soils on-site.
- Parties recommended a systematic and complete screening for all relevant parameters and linking to the relevant standards (e.g., CCME).

What Will Be Left Behind Permanently

This topic covers the issue of the infrastructure left behind permanently post-closure.

Key references for the topic include:

- [Diavik Closure Workshop 2 Presentation](#) (pg. 75-79)
- [WLWB Decision on FCRP v1.0, Section 13.4.1](#) (starts PDF pg. 112, printed 109)
- [FCRP v1.0, Section 5.2.1.9](#) (starts PDF pg. 145)

During the dialogue, participants were asked to share perspectives on the following:

- The values that should guide decisions about the infrastructure that is left in place.
- The infrastructure that should remain permanently in place and its alignment with the closure goal and SW9 objective.

Discussion Themes and Perspectives

- While there was limited feedback on this topic, in general parties want to see the site left safe for wildlife (especially Caribou) and people, and as close to pre-existing conditions as possible.
- One party wants to see the A21 causeway breached.
- Some participants want the pipeline benches reclaimed in similar manner as the roads.
- One party recommended that plastic pipes could be repurposed for sleds.
- Most participants appeared to be satisfied with the temporary camp locations, and some wanted to be able to use them for other purposes.

Appendix

Reference Materials

- [Diavik Closure Water Quality Workshop Presentation](#)
- [Diavik Closure Workshop 2 Presentation](#)
- Topic 1: Demonstration of long-term chemical stability
 - [FCRP Reasons for Decision](#) section 3.6.1, 3.6.2, 3.6.5 (PDF pg. 27-34; 36-37)
 - Attachment C provided by DDML in response to [FCRP comments](#), see DDML comment 3, included in Annex
- Topic 2: Closure Criteria for SW1 and SW2
 - [Pre-Workshop Materials and Updated Appendix X-27](#)
 - [FCRP Reasons for Decision](#) section 3.9.1 (PDF pg. 45-59)
 - Supporting information: DDML provided operational Data with Pre Workshop Materials ([Part1](#), [Part 2](#), [Part3](#), [Part 4](#), [Part 5](#))
- Topic 3: Closure and Post-Closure Aquatics Effects Monitoring Program (AEMP)
 - [FCRP Reasons for Decision](#) section 3.7.3 (PDF pg. 38-42)
 - [Proposed AEMP](#) PDF pg 123-242; figure of proposed sampling locations of PDF pg 182
 - [Collection Ponds 2 and 7 Transitional AEMP](#)
- Topic 4: Cultural Use Criteria and Traditional Knowledge (TK) Watch Program
 - [FCRP Reasons for Decision](#) sections 3.6.3 and 3.7.4 (PDF 34-45; 42-44)
- Topic 5: North Inlet Closure Activity
 - [FCRP Reasons for Decision](#) section 3.12 (PDF pg 82-89)
 - [Previous Analysis of Contingency Options](#) (Provided with CRP Version 4.0; PDF pg. 183-232)
- Topic 6: North Inlet sediments
 - [FCRP Reasons for Decision](#) section 3.12.2 (PDF pg 85-88)
- Topic 7: Change in closure activities associated with fish habitat in the pit lakes
 - [FCRP Reasons for Decision](#) section 3.13.3 (PDF pg 98-101)
- Topic A: South WRSA
 - [WLWB Decision on FCRP v1.0](#), Section 3.9.5 (starts PDF pg. 70, printed pg. 67)
 - [FCRP v1.0](#), Appendix X-17 (starting on PDF pg. 1)
- Topic B: Revegetation Strategy
 - [WLWB Decision on FCRP v1.0](#), Section 3.9.4 (starts PDF pg. 65)
 - [FCRP v1.0](#), Appendix X-9
- Topic C: Dust
 - [WLWB Decision on FCRP v1.0](#), Section 3.9.4 - Closure Objective SW4 (starts PDF pg. 64)
 - [FCRP v1.0](#), Appendix X-9 (starts PDF pg. 36)
 - [FCRP v1.0](#), Appendix VI-3.1.5 (starts PDF pg. 32)
- Topic D: North Inlet Sediment
 - [FCRP Reasons for Decision](#) section 3.12.2 (PDF pg 85-88)
- Topic E: Contaminated Soils
 - [WLWB Decision on FCRP v1.0](#) section 3.10.4 (PDF pg., 80-81)
 - [WLWB Decision on FCRP v1.0](#), Section 3.14.3 (starts PDF pg. 107)
 - [FCRP v1.0](#), Appendix X-11 (starts PDF pg. 65)
- Topic F: What Will Be Left Behind Permanently
 - [WLWB Decision on FCRP v1.0](#), Section 13.4.1 (starts PDF pg. 112, printed 109)
 - [FCRP v1.0](#), Section 5.2.1.9 (starts PDF pg. 145)

Participant Groups

Workshop 1 (in alphabetical order)

Bridge Building Group (BBG)

1. Jennifer Davis (Facilitator)
2. Vanessa Monteiro (Facilitator)

Deninu K'ue First Nation (DKFN)

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4. Henry McKay
5. Marc D'Entrement (Virtual)
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Department of Fisheries and Oceans (DFO)

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11. Brett McGary (Observer)
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15. Nicole Goodman
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25. Charlie Catholique
26. Jennifer Kirk (Virtual)
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53. Ryan Fequet

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Breakout Responses

The following tables are the recorded responses from the given breakout activities.

Exploring Possible Long-term Futures

	BEST CASE	MOST REALISTIC BEST CASE	MOST REALISTIC WORST CASE	WORST CASE
CLIMATE	<ul style="list-style-type: none"> • Good understanding of what to expect • Site can adapt to climate changes 	<ul style="list-style-type: none"> • Refreeze of waste rock; pile remains frozen with future climate changes 	<ul style="list-style-type: none"> • Lower water mean less dilution of iron-rich water coming from site • Lower water levels result in loss of chemocline • PKC pond forms • Changes support different life other than caribou, trout • Risk = decreased fish health & water quality 	<ul style="list-style-type: none"> • Increased precipitation • Permafrost melt • Irreversible change to Lac de Gras • Uninhabitable
LONG-TERM	<ul style="list-style-type: none"> • Collaboration with Northern people • No active presence on site (no more DDML presence) • Monitoring is done • Structures are functioning as intended • No engineering failures 	<ul style="list-style-type: none"> • No big surprises • No year-round site presence • TK and science working together instead of separately • Diavik's experience informs closure at other northern mines 	<ul style="list-style-type: none"> • Water treatment plan operating in perpetuity • PKC and NCRP require long-term management • Meets scientific standards, but not cultural standards 	<ul style="list-style-type: none"> • Water treatment plant operating in perpetuity • No back-up plan if more care is required • Instability (e.g., dams) • Rio Tinto or Fed Gov on site • Delayed demolition and closure
WATER QUAL	<ul style="list-style-type: none"> • Clean to drink everywhere! • No algae blooms • Incorporating TK & Western science • Criteria that are meaningful to everyone • TRUST: People feel safe drinking and using water • Sustainable and predictable • Some mixing zones are gone and others are smaller 	<ul style="list-style-type: none"> • No unplanned contaminants (freezing / climate change) • If monitoring ends, decision consensus among parties • Lake still usable • Trending toward pre-op conditions 	<ul style="list-style-type: none"> • Mixing zones are bigger and worse • Fish unhealthy near the island • Dikes cannot be breached • Forced to use Lac de Gras for dilution 	<ul style="list-style-type: none"> • Increased leaching rates exacerbated by increased precipitation and thaw (more contamination) • Shorter permafrost season or none • Can't paddle the Coppermine River • Drinking water not safe for humans or animals
SITE USE	<ul style="list-style-type: none"> • Safe for animals, alive & healthy • Mimic environment (for remaining structures) • Remaining structures (e.g. airstrip) informed by land users (limited to land users) • Clean air everywhere (no dust, emissions) 	<ul style="list-style-type: none"> • Using land without fear • No restrictions on land use / cultural use • Wildlife using land without bias • Fish abundant in Lac de Gras without preference 	<ul style="list-style-type: none"> • Limited return of Caribou and other wildlife on and around the island • People avoid cultural use of the area • Reveg is poor; looks too different after 50 years • No berries, medicinal plants 	<ul style="list-style-type: none"> • Water treatment plan operating in perpetuity • No access to site • No animals visiting or using the site • LdG absent of aquatic life (fish, flora, etc) • Vegetation cannot thrive • Russia takes over the site

	BEST CASE	MOST REALISTIC BEST CASE	MOST REALISTIC WORST CASE	WORST CASE
L A N D F O R M	<ul style="list-style-type: none"> • No evidence of mine site • Any structures are physically stable • Entire site is accessible • Sloped South WRSA • No visible piles • Baseline dust levels • Airport & water treatment facility are removed 	<ul style="list-style-type: none"> • Any remaining infrastructure is well-maintained • Final landscape provides natural features for wildlife • Active role & inclusion of TK Monitoring Group 	<ul style="list-style-type: none"> • Dust from roads in high winds 	<ul style="list-style-type: none"> • Water treatment plan is needed in perpetuity • Landfill contents become visible • Physical instability (climate change) • Garbage and debris remain
P L A N T S	<ul style="list-style-type: none"> • Vegetation matches surroundings (native species only) • Biodiversity matches area • UoA revegetation recommendations adopted 	<ul style="list-style-type: none"> • Evidence that vegetation is coming back and is self-sustaining • Roads naturally revegetating • Natural processes taking place • Average biodiversity • TK informed revegetation plan & monitoring • Closure objective and criteria are achieved 	<ul style="list-style-type: none"> • Takes a long time for revegetation • Vegetation exists, but low biodiversity • Medicinal plants are not revegetated • Climate change negatively impacts vegetation 	<ul style="list-style-type: none"> • Not climate resilience • Barren / moonscape • Revegetation efforts fail • No rhubarb • Invasive species • Contaminated flora = no cultural use
A N I M A L U S E	<ul style="list-style-type: none"> • Visible, abundant and healthy Caribou, and are able to move freely • Diversity of healthy wildlife using the site 	<ul style="list-style-type: none"> • Safe passage for Caribou • Caribou only use part of the site • Some diversity of wildlife using the site; others not using it • Evidence of Raptor nests, Rabbits, Foxes, Bear dens • Wildlife have no dietary preference • Fish use waterways 	<ul style="list-style-type: none"> • Animals don't use the site (bad taste) • Caribou don't use historical migration patterns (which increases predation and illness) • Low habitat diversity • Climate change has negatively impacted food availability and causes hazards (ice breakup) • Moose displace Caribou (because of habitat) • New hazard to Caribou through closure activities • Scarifying impacts Caribou movement 	<ul style="list-style-type: none"> • Animals don't use the site • Edges of PKC facility and pond area are dangerous to wildlife • Animals are sick or dying • Caribou are being hit by trucks • Species are added to status lists

	BEST CASE	MOST REALISTIC BEST CASE	MOST REALISTIC WORST CASE	WORST CASE
PEOPLE USE	<ul style="list-style-type: none"> • Full-site access, no barriers to use, no fears • People are able to drink the water • Site is being used for economic activity (e.g., Arctic research hub, eco-tourism) • Able to practice S.35 Rights • Indigenous communities work together to protect and use • Ongoing support for TK projects 	<ul style="list-style-type: none"> • Site is managed by Northerners • Continued TK and IG participation • Fish are consumable without negative effects • Increased scientific understanding of how to close mine sites • Humans use the site responsibly 	<ul style="list-style-type: none"> • People avoid the site for safety reasons and / or lack of Caribou; but are using Lac de Gras • People avoid the surrounding area • No one is eating berries • There is over hunting because of remaining access roads 	<ul style="list-style-type: none"> • People are not able to use the site • People are not able to drink the water • There is over hunting because of remaining airport • No cultural use due to contamination • Impacts on cultural & historical knowledge • New exploration/resurrection for new mining (affects people's use)

Topic 2: Closure Criteria

Breakout Group 1

- How do you want to see site use post-closure?
 - Implications on LT MZ on these activities?
 - Have a set of TK criteria to help confirm success
- Trade Offs
 - Mixing zones = no change of fuel contamination
 - Lights, noise, disturbance could be associated with treatment plant
 - Not enough data to say!
- How mixing zones could be supported
 - Reveg for water management → constructed wetlands to manage contaminants before entry to LdG
 - Chronic toxicity should be paired with the numerical criteria (and not or)
- How do you want to use site post-closure
 - Just like anywhere else on the land
 - Caribou will come back + people can use site
- Uncertainty + assumptions around mixing zone conditions (size, contamination)

Breakout Group 2

- Question 1A (How do you want to see the site used post-closure?)
 - See people fishing and eating (fish, drinking water)
 - Safety and without fear
 - End use is same as pre-development use (trapping, hunting)

- Question 1B (What are the implications of long-term mixing zones on these activities?)
 - No trust, would require ongoing monitoring & enforcement
 - Would result in alienation of relationship, land, and rights
 - No trust, would not use the area
- Question 2 (What are your perspectives on long-term treatment as the identified contingency? Share ideas for alternatives to long-term treatment.)
 - More info needed - scenarios of what site would look like
 - Would need to know if there is a way to treat water passively & 100% effectively
 - Keep waste contained, not mixed into LdG (maybe on land)
 - WT plant still in operation
 - Dilution not a solution to pollution
- Question 6 (To what extent do you think the proposed criteria reflect the objective of waste minimization?)
 - If they follow Federal guidelines, there is trust
 - Low extent, do not think it will

Breakout Group 3

- ↑ mixing zone size; maybe lean toward water treatment
- Plumes - will they reflect what's modelled; need for more data
- Special effects modelling is good; beyond 2, 4, and 7
 - 13, 1, 5: add focus here

Breakout Group 4

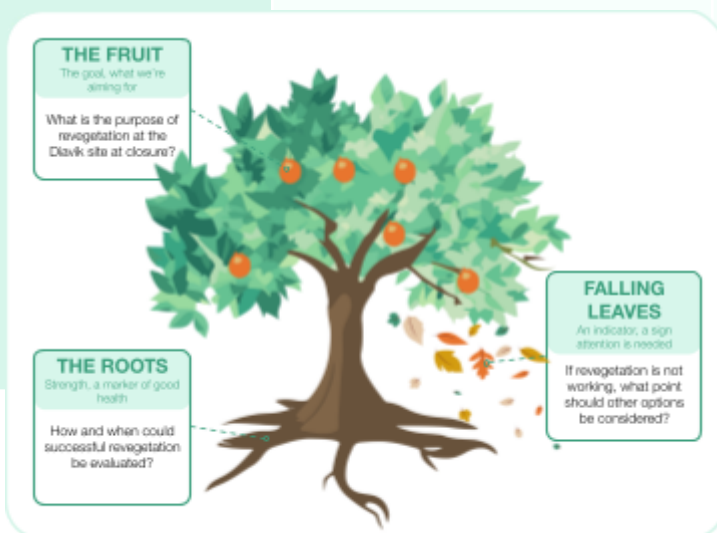
- Mixing zone assessment as part of PAR
- Could seasonal water treatment be an option (long-term)?
- Not so much about further waste minimization but clarity on size of MZ (or present)
- Want to see the site used by wildlife
- Monitoring insects as bioindicators
- Worry-free site ☺
- Minimize impacts of WTP?
- Safe drinking water
- For MZs:
 - Other mine sites?
 - Initial monitoring data on mixing and concentrations
 - Engagement

Topic 4: Cultural Use Criteria

WHERE Where should cultural use criteria be "housed"? (i.e., the regulatory instrument & process for review)	WHAT Where should cultural use criteria apply in regard to water quality-related components?	HOW How should TK monitoring results be used? (e.g., evaluate closure criteria? who evaluates?)
<ul style="list-style-type: none"> • TK = living document • Water license gives weight • FCRP or License are okay: as long as the board approves any changes and consults all groups involved • Desire for more "teeth" to enforce compliance • Must be tied to the act • Management plan under the license is an ideal location • Needs to still be adaptable, have flexibility • YKDFN will want their own Cultural Use Criteria that are not mixed with other Cultural Use Criteria • Yes to closure plan; not 100%, still have questions • Flexibility to change; Cultural Use Criteria changes; ongoing input • Consider TK protocols (permissions and how) • Increase action to show importance (catch up is hard now) • There are benefits and drawbacks in choosing "where" 	<ul style="list-style-type: none"> • Apply everywhere • Cultural use criteria for more than just water • Fish spawning areas monitored to AEMP stations • Water levels monitored and wildlife numbers • TK criteria used to evaluate discharge areas → want to know if you can drink the water in the future • Inlet & outlet points also assessed with TK criteria (Coppermine); consider communities downstream (KIA) • North Inlet: still monitor and assess even if water is not drinkable or won't achieve success • Overlap with AEMP stations and areas where cultural use are expected and fish camp sites • Not only pits; lakes too and consideration for science choices • Not only drinking water • Mixing zones (relationships, animals appear) • TK & AEMP long-term, hand-in-hand 	<ul style="list-style-type: none"> • Youth & Elders • Long-term consistency with those participating (context building takes time, Youth/Elders) • Long-term results capture • Share with others (make a book?) • Results need verification • Evaluation of results should be up to Elders • New TK closure criteria added in; TK directly used to evaluate closure criteria • Need to be able to observe at camp even in poor weather conditions during site inspections • Need to start bridging gap between subjective & numeric criteria, particularly or potentially developing numeric Cultural Use Criteria • Still exploring how TK monitoring will be linked to milestones • Need additional research on developing TK action levels that can be linked to Western science • Community input evaluation • Think broadly on how to engage with communities (e.g. Facebook, radio, etc.) • Land & animals and Closure Criteria • Knowledge holder fact check • Yes, evaluate closure success (the caribou know) • Output: Communicate results to communities & schools + AEMP results • New methods & approaches (TK is also fluid)

Topic B: Revegetation Strategy

TOPIC	RESPONSES	
<p>What is the purpose of revegetation at the Diavik site at closure?</p> <p><i>THE FRUIT: The goal, what we are aiming for.</i></p>	<ul style="list-style-type: none"> Looking like the rest of the area Make effort because it was disturbed Aesthetic value Animals come back (Caribou) Not for stability Livelihood Viable land for succession ↑ conditions wildlife (habitat, food) Restore ecosystem functions Support land use Buffer climate Habitat connectivity <ul style="list-style-type: none"> Overarching goal: return land to original state (as much as possible) Proponent commitment Cover up damage; look like before, stabilize ground, speed up return Food for birds, other wildlife & Caribou Use for continuous traditional harvesting (berries, medicine, etc.) Proponent responsible for reveg Promote cultural use Aesthetics: looks and feels like surrounding area (as much as possible) 	
<p>How and when could successful revegetation be evaluated?</p> <p><i>THE ROOTS: Strength, a marker of good health.</i></p>	<ul style="list-style-type: none"> Compare with surroundings Species trajectory towards ongoing - 5-10 years Visual assessment of stem density Return of birds, other wildlife & Caribou (indicators) Self-sustaining: ↑ in amount/getting better Longer (e.g. 7 years) in self-sustaining <ul style="list-style-type: none"> Site visits necessary to evaluate Other native plants coming in If cuttings measure re-tundra Succession occurs, trends of active plants ↓ Elders say will never be the same Indigenous involvement + TK Monitoring group Annual evaluation (every year consider) ← monitoring Man plans milestones = % of success Longer than proposed (100 years → if not realistic) Difficult to set time until seen Initial establishment & ongoing trends Lichen for Caribou Density / mass See blooms Soil buildup 	



TOPIC	RESPONSES	
<p>If revegetation is not working, what point should other options be considered?</p> <p><i>FALLING LEAVES: An indicator, a sign attention is needed.</i></p>	<ul style="list-style-type: none"> • Want to understand options • Stockpile seeds for monitors to use • Use all till? • Consistently more deep (0.5m) (a little bit of shallow) • If it doesn't work after 7 years → go passive 	
<p>Where is vegetation coverage desired post-closure and where should active revegetation occur to achieve this?</p> <p><i>LOCATION</i></p>	<ul style="list-style-type: none"> • From MAP: <ul style="list-style-type: none"> ◦ NCRP = Active ◦ PKC= if passive good, but monitor for wildlife (eating veg) ◦ Plant Site = Passive • Passive at ground level areas • PKC: ?? concerns over wildlife eating vegetation growing in that area (if passive, monitor for wildlife, food source) • <u>NOT</u> fuel areas • On dykes (rip before breach) 	<ul style="list-style-type: none"> • Shorelines • Engagement • Discussions with DDML • Focus effort on rock pile because ground level on its own • WRSA - need to discuss • Active on rock pile • On the WRSA • Till (mixture) to help re-veg effort on rock pile (or overburden) • Generally want veg on roads/laydowns • Active reveg everywhere possible
<p>What plant species should be included in active revegetation?</p> <p><i>SPECIES</i></p>	<ul style="list-style-type: none"> • Indigenous to areas (pre-dev) in pink (flat areas) • Whatever works on rock piles • Local grasses (seen in community ft. Ryegrass) • Use local species • Containerize (plugs + whips + things w/ reeds) • Transplant moss • Want to look like surrounding area (plots may not) 	

Topic E: Contaminated Soils

Hydrocarbon Contaminated Soils

	Leave & Rock Cover	Landfarm	Landfill	Off-Site Removal
P R O S	<ul style="list-style-type: none"> Simplest No ground disturbance Simplest, easiest, cheapest 	<ul style="list-style-type: none"> Opportunity to improve soil quality Could minimize need for other disposal options Reasonable option Oxidized environment - cheaper convenient Innovative solution as an example for other mines 	<ul style="list-style-type: none"> Frozen No anticipated exposure pathways Availability of nearby material to cover contamination 	<ul style="list-style-type: none"> Provides reassurance in site safety (no risk of contamination, perception) TK panel wanted haz material offsite Eliminates the problem locally
C O N S	<ul style="list-style-type: none"> Frozen (potential for exposure pathways) Risk to cultural use Risk communication is difficult Additional monitoring Possible infiltration Monitoring costs 	<ul style="list-style-type: none"> Slow Temporary risk of disturbing contaminated soils Possibility of airborne contamination (if landform dries out) Timing (short season); can take years Can't predict climate conditions 	<ul style="list-style-type: none"> Perception of safety Risk to cultural use Temporary risk of disturbing contaminated soils Capacity considerations Additional monitoring Overreliance on staying frozen long-term Infrastructure materials left in place (plastic, steel, metal) Aesthetically undesirable Don't want garbage dumps all over the tundra 	<ul style="list-style-type: none"> Cost GHG emissions Becomes someone else's problem Temporary risk of disturbing contaminated soils Least desirable (increased GHGs, risk of vehicles on ice roads) Moving the problem is not a solution Difficult to find a landfill that will accept bulk contaminated soil Too expensive (depending on volume) Road usage detrimental to Caribou Sets a precedent (lack of diligence)
I F & W H E N	<ul style="list-style-type: none"> Possibly never (site specific, more info needed) If risk assessment rationale (↑ confidence from Parties) If it meets appropriate criteria Engagement, community needs to be involved 	<ul style="list-style-type: none"> Guidelines → follow Depending on particle size & humidity Engagement, community needs to be involved 	<ul style="list-style-type: none"> More engagement (understanding of what "industrial" means) Try to sell assets first Sufficient cover Engagement, community needs to be involved 	<ul style="list-style-type: none"> Consider volume Definitely when no other options Comfort with this option until more on others Everything > closure criteria (agriculture) Engagement, community needs to be involved

Non-Hydrocarbon Contaminated Soils

TOPIC	RESPONSES	
<u>WHEN</u> do non-HC contaminants require reclamation activities?	<ul style="list-style-type: none"> • Above standards (e.g. CCME) • Pre-ESA • TK validation • Landfill or off-site • ↑ Caribou eating (may indicate ↑ salt + other contaminants) • Glycol degrades once exposure to air (10 days) 	<ul style="list-style-type: none"> • Above CCME agriculture guidelines • Measure that suggest ↑ PFAs • Consideration to water guidelines (CCME) • TBD: drinking vs. recreation vs. aquatic life protections • How is the land responding (does it look good?)
<u>HOW</u> should DDMI select parameters?	<ul style="list-style-type: none"> • Check metals again after • Check all parameters after demo • Check GNWT guidelines • Put list in FCRP (+ CCME guidelines) • Do them all • Look at broad suite first = comfort • Future contaminants from things degrading (e.g. plastics) • Microplastics (PFOs) 	<ul style="list-style-type: none"> • No need to rush on it • Migration path of Caribou • Looking at the broader list to assess • What is easily taken up by plants? • Ability to bioaccumulate • What are particularly toxic to animals • Salt parameter test (Caribou preference) • Attractive to animals but not good (glycol = sweet)

Closing Values Activity

- Balance
- Safe to humans and wildlife
- Return site as close as possible to pre-development (reveg, clean water, wild life)
- Clarity
- What is the plan for the windmill / solar panels
- Don't rush decisions → take time for engagement
- Closing with care
- Clean up the best we could, don't leave anything behind if we can
- Responsibility
- Open
- Open-mindedness, respect (listening actively)
- Understanding trade-offs
- Minimize impact as much as reasonably possible
- Time
- Clean environment for culture
- Participation review all the comments if they are effective
- All working towards the same goal
- Respect
- Compromise
- The precautionary principle: being extra cautious in light of unknowns
- Value, respect, the land as our ancestors respected Mother Earth
- Care
- Patience
- More meetings with impacted groups, EMAB & begin TK programming & monitoring
- Environmentally friends: closing the mine with the animals health in mind and the health of the people who eat the animals on site in the near future