

Environmental Monitoring Advisory Board

Presentation to the Wek'eezhii Land & Water Board

Diavik Diamond Mines' Water Licence Amendment

Application: W2015L2-0001

Progressive Reclamation

February 2022



Intervention Sections

1. **Completeness of Amendment Application**
2. **Water Use for Filling Mine Workings**
3. **Rationale for Decommissioning Ponds**
4. **Decommissioning Criteria and Uncontrolled Discharge**
5. **Lack of Research Program and Monitoring Plan**
6. **Development of Water Quality Criteria**
7. **Monitoring of Discharge in a Timely Way**
8. **Response Framework**
9. **Approval Process for Decommissioning Ponds**
10. **Application Form**
11. **Comments on Diavik's Proposed Wording for the Water Licence**

1. Completeness of Application

A) “Administrative” Changes

- ▶ EMAB Disagrees: Changes will likely have implications on receiving aquatic environment.
- ▶ Diavik should have provided information on potential environmental effects.
 - ▶ In February 2021 Diavik proposed Mixing Zone research program by March/April 2021.
 - ▶ Lots of time to prepare, but not provided.
- ▶ **Recommendation: Reject application as incomplete.**

1. Completeness of Application

B) Does CSR allow adverse effects on Lac de Gras?

- ▶ Diavik argues that the CSR allows effects on fish and other aquatic life within one km of East Island.
- ▶ CSR allows project to proceed with mitigation. Does not mean Diavik can harm aquatic life.
- ▶ **Recommendation: Do not accept argument that CSR significance definition allows Diavik to harm aquatic life.**

1. Completeness of Application

C) Information Request #7 - Diavik CSR commitment to treat runoff greater than AEMP benchmarks

▶ EMAB's view:

▶ Transcripts show statement was made at hearing; Diavik did not speak up.

▶ CSR published over 20 years ago; Diavik never disagreed.

▶ EMAB quoted CSR statement in comments on ICRP 4.1. Diavik did not disagree with statement.

▶ **Recommendation: Disregard Diavik's response to IR#7. Too much time has passed for disagreement in 2022 to be credible.**

2. Water Use for Filling Mine Workings

EMAB accepts Diavik's proposed wording for Part D of water licence.

3. Rationale for Decommissioning Ponds

Summary of Recommendations

- ▶ **Diavik should show original purpose of any pond is no longer needed before decommissioning.**
 - ▶ **For Pond 7, Diavik should show runoff from Ammonium Nitrate Storage and Emulsion Plant does not need to be collected.**

4. Decommissioning Criteria and Uncontrolled Discharge into LdG Summary of Recommendations

- ▶ Remove proposed EQC's in Part G (33). These are not protective enough.
 - ▶ Use EQC's in G(32) instead
- ▶ Revise Part G (32) to include a requirement for Diavik to meet Closure Criteria proposed in 4 (a) of Schedule 10.
- ▶ Controlled release, not uncontrolled discharge.

5. Research Program and Monitoring Plan Summary of Recommendations

- ▶ **More sampling from pond before decommissioning.**
 - ▶ **Include pond sediment.**
- ▶ **Need for research in mixing zones:**
 - a) **Runoff,**
 - b) **Mixing zone dimensions,**
 - c) **Mixing zone water quality,**
 - d) **Mixing zone sediment quality,**
 - e) **Benthic invertebrates, and**
 - f) **Fish.**

6. Development of Water Quality Criteria

Summary of Recommendations

- ▶ **Water quality criteria should ensure AEMP benchmarks will be met.**
- ▶ **Updated model results for each catchment as basis for criteria.**

7. Ability to Respond Rapidly to Monitoring

Summary of Recommendations

- ▶ A quick response is needed if poor water quality is detected.
- ▶ Review SNP data to ensure sampling includes periods of highest contamination levels.
- ▶ Monitoring locations close to the point of discharge.

8. Response Framework

Summary of Recommendations

- ▶ **Propose separate response framework tailored to pond decommissioning.**

9. Approval Process for Decommissioning Plan Summary of Recommendations

- ▶ **Clarify how pond decommissioning will be approved via CRP.**
- ▶ **Should be a separate Decommissioning Plan for each pond.**

10. Application Form

Overview

- ▶ Characterized amendment as “administrative”.
 - ▶ No identification of potential environmental effects.
 - ▶ Lack of information provided prevents full discussion on potential effects.

11. Diavik Proposed Wording for Water Licence

Responding to Diavik proposed wording submitted with application.

- ▶ **Narrow amended wording to refer specifically to decommissioning collection ponds, not “all engineered structures” or “components.”**
- ▶ **EQC’s proposed based on MDMER are too low; don’t protect aquatic health.**

11. Diavik Proposed Wording for Water Licence (cont.)

- ▶ **Decommissioning Plans should be required to be approved for each pond - licence wording should specifically address this.**
 - ▶ Show pond is no longer required.
 - ▶ Follow WLWB direction from ICRP 4.1 regarding mixing zones.
 - ▶ SW1 and SW2 criteria must ensure discharge does not harm aquatic, human and wildlife health
 - ▶ Ensure no acute lethality.

11. Diavik Proposed Wording for Water Licence (cont.)

- ▶ **Decommissioning Plans - continued**
 - ▶ **Comprehensive, rigorous monitoring of discharge.**
 - ▶ **Add monitoring of sediment in collection pond and mixing zone.**
 - ▶ **Include monitoring of benthics and fish as well as water quality.**
 - ▶ **Address intermittent discharge.**
 - ▶ **Add monitoring to confirm the size of the mixing zone.**

Thank you
Masi

Questions?

