

February 25, 2019

Reasons for Decision to order an Environmental Assessment

Depositing Processed Kimberlite in Pits and Underground, Diavik Diamond Mines Inc.

The Mackenzie Valley Environmental Impact Review Board (the Review Board) has decided to conduct an environmental assessment (EA) on activities proposed by Diavik Diamond Mines Inc. (Diavik), namely, Diavik's proposal to deposit processed kimberlite into a mined-out pit (or pits) and underground mine workings. These activities are described in Diavik's application to the Wek'èezhìi Land and Water Board (WLWB) to amend the Diavik Water Licence (W2015L2-0001). **The Review Board is using its authority under subsection 126(3) of the Mackenzie Valley Resource Management Act (the Act) to conduct an environmental assessment of these activities.**

Under the current closure plan, and consistent with the approval of the Diavik Mine, Diavik would fill the mined-out pits and underground mine workings with freshwater and breach the dykes that currently surround the pits, so that the pits become part of Lac de Gras (which now surrounds the mine and pits). In its water licence amendment application, Diavik proposes to put processed kimberlite, a mine waste, into the mine workings, and cover the processed kimberlite with water before breaching the dykes and reconnecting the flooded pits to Lac de Gras.

In a preliminary screening, the 'might test' is applied to determine if a development proposal "might have a significant adverse impact on the environment"; or, "might be a cause of public concern" (under subsection 125(1) of the Act). If either of these tests are met, a development must be referred to the Review Board for an environmental assessment. The Review Board acknowledges the public review process that has been undertaken by the WLWB to assist in its preliminary screening decision.



In the Review Board's view, a preliminary screening would have ideally been conducted earlier, given that it is intended to be "preliminary" in nature, and that Part 5 of the MVRMA (including screenings) has a separate purpose and involves considerations that are distinct from those of water licensing and land use permitting. The Review Board acknowledges that it has taken a significant time for the WLWB to secure the information that is currently on the record. This in part is due to the lack of detail in the original amendment application submitted by Diavik, and the challenges of completing a robust preliminary screening in the absence of foundational information.

The Review Board carefully considered several relevant factors in its decision to order Diavik's proposal to environmental assessment. These factors included evidence submitted to the WLWB by Diavik and others about this proposal from June 2018 to February 2019, as well as the 1999 *Comprehensive Study Report*¹ for the Diavik Diamond Project prepared under the *Canadian Environmental Assessment Act* (CEAA). The Review Board particularly notes the following:

- The 1999 CEAA Comprehensive Study did not assess the placing of processed kimberlite in the pits and underground mine workings, including: whether doing this is acceptable, what the related effects may be, what the acceptable level of risk to Lac de Gras and other valued components is, and how to mitigate potential impacts.
- Putting processed kimberlite in pits is outside the scope of:
 - the original Diavik CEAA Comprehensive Study;
 - the currently approved version of the *Interim Closure and Reclamation Plan*²; and
 - the existing Fisheries Act Authorization.
- Placement of processed kimberlite in the pits and underground mine workings would be permanent and irreversible.
- Restoring the pits to productive fish habitat within Lac de Gras was an important part of the CEAA decision to approve the Diavik project in 1999.
- The potential impacts of the proposed changes on traditional use of Lac de Gras and Indigenous cultural values needs careful consideration.

The Review Board has also considered:

- the large scale of the proposed activities,
- the sensitive ecological and cultural setting of Lac de Gras,
- the potential for adverse effects to the water quality in Lac de Gras after closure,

¹ Please see online https://www.ceaa-acee.gc.ca/A4FE86CA-docs/diavik_csr_e.pdf

² Please see online http://registry.mvlwb.ca/Documents/W2007L2-0003/W2007L2-0003%20-%20Diavik%20-%20ICRP%20-%20Version%203.2%20-%20Jul%2027_11.pdf



- the risk that placing processed kimberlite in the pits could jeopardize the closure plan and objective of reconnection to Lac de Gras and the restoration of the pit areas,
- the use of a relatively new technology (meromixis for processed kimberlite containment) in an untested setting (in a large, deep, culturally important, cold climate lake such as Lac de Gras),
- the potential impacts from the proposed activities to combine with cumulative effects of past and present activities from the Diavik and Ekati mines on valued components including water quality, fish and wildlife, and
- that Diavik is located within an important migration corridor for Bathurst caribou and that activities in this corridor should be carefully considered due to the current state of the herd.

The Review Board finds that the evidence to date has not adequately addressed the following:

1. The potential impacts of the proposed activities on traditional use, wildlife (including caribou), and the cultural value of Lac de Gras³ have not been evaluated.
2. The process has also not fully considered cumulative effects of the proposed activities in combination with other existing or planned projects in the area.
3. Parties have indicated that Diavik has not provided enough information to justify its position that the proposed development is unlikely to cause significant adverse impacts. In cases where uncertainty persists around the potential impacts and effectiveness of mitigations for proposed activities, an environmental assessment should be conducted.⁴

The Review Board notes opinions expressed by parties and by Diavik that depositing processed kimberlite into the pits may be a preferred option for long term storage and closure. The Review Board also notes that the *CSR* identified aspects of mine development which could be re-evaluated as more information became available including the use of processed kimberlite as underground backfill to reduce the long-term mitigation requirements of the processed kimberlite containment facility. However, this change to the project creates the potential for new, previously unassessed impacts. These impacts should be fully considered through an environmental assessment so that they can be mitigated appropriately.

Based on these considerations, the Review Board concludes that **the proposed activities might be a cause of significant adverse impacts on the environment**. The Board also notes that the closure objectives of the 1999 CEAA *Comprehensive Study Report* were partly intended to address public

³ As per requirements of subsection 125(1) of the Act

⁴ Section 2.7 of the Mackenzie Valley Environmental Impact Review *EIA Guidelines* states that a development should be referred to environmental assessment if “it cannot be determined that the ‘might’ test has been met without further analysis or there are uncertainties about the potential impacts or the effectiveness of proposed mitigation measure that require analysis to be resolved”.



concern. Diavik's ability to achieve these closure objectives might be affected by the new proposed activities. The Review Board therefore finds that the **new activities might be a cause of public concern**. For these reasons, the Review Board is using its authority under subsection 126(3) of the Mackenzie Valley Resource Management Act (the Act) to conduct an environmental assessment of these activities, notwithstanding the completion of the preliminary screening process by the WLWB.

The Review Board is committed to a focussed, effective, and efficient EA. A draft scoping document and a coordinated work plan for the EA and the WLWB process will be circulated for public review.

If you have questions, please contact Mark Cliffe-Phillips, Executive Director (867-766-7055 or mcliffephillips@reviewboard.ca).

On behalf of the Mackenzie Valley Environmental Impact Review Board,

JoAnne Deneron
Chairperson