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Qikiqtani Inuit Association

Nunavut Water Board Technical Meeting

Baffinland Iron Mines Corp. Amendment Application
for Water Licence No: 2AM-MRY1325



November 12, 2021



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Qikiqtani Inuit Association

Mandate

To safeguard, administer and advance the rights and benefits of Inuit, to promote the Inuit language and traditions, Inuit environmental values, Inuit self-sufficiency as well as economic, social and cultural well-being through succeeding generations.

Land Management

As Designated Inuit Organization under NLCA, manage Inuit Owned Lands in the Qikiqtani Region including the project area.

Inuit Rights and Interests

Represents over 14,000 Inuit in the Qikiqtani (Baffin) Region



Progress since 2019 Technical Comment Submission

- Since QIA submitted Technical Comments in 2019, Baffinland has provided additional resources and made commitments to:
 - Support QIA to gather information from Inuit on water-related values
 - Develop an Inuit-led monitoring system for the Project
 - Develop an adaptive management system for the Project that has QIA co-approvals and Inuit objectives, indicators, thresholds and responses



Progress since 2019 Technical Comment Submission

- This work is ongoing and will required more Inuit engagement prior to QIA being able to weigh in on the effectiveness of these commitments to deal with impacts to water being reported by Inuit.
- Inuit need time to better engage on and understand the implications of the proposed Project on their water values and rights.



Status of Technical Concerns

- This presentation focuses on unresolved concerns and includes references to specific Technical Comments where possible. Due to time constraints, not all QIA Technical Comments will be referenced in this presentation.
- QIA will provide an update to the resolution status of all Technical Comments following the conclusion of the Technical Meeting.



Technical Concerns

Areas of Focus:

- Environmental Management
- Construction Activities
- Inuit Engagement
- Integration of Inuit Qaujimanituqangit
- Water Compensation
- Project Closure & Land Reclamation



Technical Concerns

Environmental Management

- Adaptive Management
 - QIA has approval authority via the Inuit Certainty Agreement for adaptive management components of the project
 - Components of the Inuit Certainty Agreement, including adaptive management, do not yet have consent from impacted Inuit communities, who are requesting that further AMP guarantees are required before approval
 - Unresolved: TC 5.1, 6.1, 7.1, 8.1, 9.1, 11.1, 12.2, 14.1, 14.2, 15.3, 16.1, 16.2, 16.3, 18.2, 19.1,



Technical Concerns

Environmental Management

- Monitoring Activities
 - QIA strongly recommends the Water Licence reporting criteria be inclusive of satellite imagery assessments
 - Unresolved: 22.1, 22.2, 22.3



Technical Concerns

Environmental Management

- Surface Water, Aquatic Ecosystem Management Plan
 - Precipitation has been excluded as a performance indicator for surface water management ponds
 - Lack of detail regarding management of ARD/ML in quarries and when erosion and sediment control measures will be required
 - Lack of baseline for northern rail corridor monitoring sites
 - Baffinland has not proposed effective post-construction monitoring of water crossings
 - Resistance to some ongoing improvements in the SWAEMP



Technical Concerns

Environmental Management

- North Railway Freshwater Habitat Survey
 - Adequate fish crossing characterization not yet completed
 - The approach used to identify the presence of fish at the 48 sites that may potentially support Arctic char under high flow conditions is unclear
 - Limited rationale for selection of 15° gradient as a barrier to fish passage
 - Engineering drawings have not been completed for stream diversions



Technical Concerns

Environmental Management

- Environmental Protection Plan and Surface Water Sampling Program
 - Insufficient detail has been included for several procedures, including:
 - Underdeveloped monitoring approaches associated with water withdrawal, fish passage through longer culverts and turbidity near crossings
 - Mitigation measures for culverts >50 m in length and spawning sites identified within 20 m of a work area
 - Sediment sampling procedures



Technical Concerns

Environmental Management

- Aquatic Effects Monitoring Plan
 - Periphyton monitoring has not been included for flowing water systems (e.g., rivers, streams, etc.)



Technical Concerns

Construction Activities

- QIA remains concerned that the Tote Road has still not been built to its approved engineered design
 - Unresolved: TC 14.3



Technical Concerns

Inuit Engagement

- QIA continues to raise concerns with the adequacy of engagement with Inuit relating to discussions around water use, water quality and water flow.
 - Since 2019, Baffinland has provided additional resources and commitments related to Inuit engagement
 - QIA is currently completing an IQ Water Values Study and has recently released Tusaqtavut Reports for Clyde River and Arctic Bay
 - Unresolved: TC 26



Technical Concerns

Integration of Inuit Qaujimajatuqangit

- QIA believes Baffinland has underestimated Inuit values and use due to inadequate collection and consideration of IQ
 - Culture, Resource and Land Use studies are still not complete
- Gaps include lack of:
 - Inuit identification of waterbodies of heightened importance
 - Inuit on-territory engagement in assessment of locations and effects of proposed infrastructure
 - Inuit verification of fish habitat values
 - Inuit verification of impact predictions on water and fish



Technical Concerns

Integration of Inuit Qaujimajatuqangit

- It is premature to make final decisions on impacts on water and appropriate monitoring and management, until Inuit can complete the necessary IQ-driven data collection and analysis necessary to improve the understanding of likely impacts on Inuit water-related rights
 - Unresolved: TC 27, 28, 30, 32



Technical Concerns

Integration of Inuit Qaujimagatuqangit

- Baffinland has not responded to QIA's request for Baffinland to identify the current level of financial investment dedicated to IQ-focused monitoring activities
- This information was requested to establish a baseline against which improvements to IQ-focused monitoring activities in the future can be assessed
- This reduces QIA's confidence in Baffinland's commitment to Inuit-led monitoring and IQ integration
 - Unresolved: TC 31



Technical Concerns

Integration of Inuit Qaujimajatuqangit

- Baffinland has committed to integrate Inuit Objectives, Indicators, Thresholds and Responses into the AEMP and other water-related plans, and to co-approvals for the overall AMP
 - Inuit need to be willing to engage on Inuit OITRs before this concept can be made concrete and its adequacy verified
- Should these commitments be implemented, this will substantially improve the role of Inuit and IQ in Project monitoring and management.



Technical Concerns

Water Compensation

- QIA and Baffinland have exchanged revisions to the Water Compensation Agreement but have made limited progress since late 2020
 - TC 3.1 unresolved



Technical Concerns

Project Closure & Land Reclamation

- QIA and Baffinland have exchanged revisions to the Interim Closure & Reclamation Plan
 - Minimal progress since 2019
 - TC 1.1 Unresolved
- Closure activities and monitoring objectives are poorly defined in Management Plans
 - TC 13.1 Unresolved



Technical Concerns

Project Closure & Land Reclamation

- Criteria for determining whether it is feasible to restore natural drainage has not been provided
- The fate of the docks at Milne Port, Tote Road and Northern Railway are ambiguous and may incur long-term maintenance liabilities for land-owners at closure
- Recent climate change predictions have not been incorporated into modelling
- Effluent criteria for water management ponds at closure have yet to be defined



Technical Concerns

Project Closure & Land Reclamation

- Mine Site Pit
 - There is still significant uncertainty in the water quality results for the pit at closure
 - Baffinland has not provided sufficient evidence regarding the stability of meromictic conditions in the pit at closure
 - Pit Water quality mitigations measures have not been clearly presented. Specific details needed include:
 - An approach to enhance pit refilling
 - Potential approaches to in-situ treatment
 - Approaches to control mercury, selenium, and silver in runoff as well as an associated response framework with triggers and action levels



Proposal for Additional Technical Meetings

QIA's Concern

- One day of technical meetings (Nov 12) is insufficient time for discussion to resolve current outstanding technical questions
- The high volume of remaining technical questions meant little time (eg. just one business day for some technical responses) prior to submission of this presentation, and a number of outstanding questions
- Compared to 'usual' or previous NWB processes, there are an unusually high number of unresolved technical questions and concerns at this point in the process



Proposal for Additional Technical Meetings

QIA's Proposal

- QIA suggests that NWB schedule additional informal meetings between QIA and Baffinland prior to closing the record
 - Provide an opportunity to discuss unresolved issues prior to a Public Hearing
 - Include NWB staff
 - Gauge interest for similar meetings with other intervenors

