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Sanikiluag Sanirajak

March 25, 2025

Robert Hunter Licensing Administrator, Nunavut Water Board P.O. Box 119 Gjoa Haven, Nunavut X0B 1J0

RE: Type 'A' Water Licence 2AM-MRY1325 - ICRP Ver 6 and WRF Thermal Model

Dear Mr. Hunter,

The Qikiqtani Inuit Association (QIA) is providing this updated response following the review of Baffinland Iron Mines Corporation (Baffinland) ICRP Ver 6 and WRF Thermal Model, issued by the NWB on January 28, 2025, in accordance with Part D, Item 2 of the Type 'A' Water Licence 2AM-MRY-1325 (the Licence).

QIA's original submission issued on February 28, 2025, identified that QIA and Baffinland were not aligned on their understanding of the future of the ISP, which compromised the bilateral progress that had been made by QIA and Baffinland in advancing the development of Version 6. Following this submission, QIA and Baffinland established an agreement regarding the future of the Inuit Stewardship Plan during the March 2025 Water License Renewal public hearing for the Mary River Project. This agreement provides QIA with confidence that the required Inuit engagement components of the ICRP will be achievable. Several outstanding concerns remain (see Table 1), but QIA believes that these concerns can be addressed throughout of the implementation of Version 6 or during the eventual development of Version 7.

QIA recommends that the NWB approve Version 6 of the ICRP.

Table 1 summarizes QIA's outstanding concerns, regarding the ICRP and WRF Thermal Model package.

Table 1: QIA Comments on the Interim Closure Reclamation Plan Version 6 and Waste Rock Facility Thermal Model

SOURCE ID	QIA Comment and Recommendation
ICRP Appendix	QIA remains concerned that without a clear commitment from BIMC to research the use of
D5	active revegetation methods (e.g., seeding, planting) beyond soil salvage within a similar
[internal QIA	context as the Mary River Project, there will be little meaningful progress in engaging active
reference	revegetation methods at the Project site. As the data collected by BIMC thus far indicate that



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comment # ICRP.V6.13] a reversal of vegetation loss will take longer than 40 years, BIMC should explore opportunities to accelerate vegetation growth and colonization of disturbed areas. In section D5.4.2, BIMC notes that the outcomes of their Project Reclamation Feasibility Analysis "...will be communicated as part of the Inuit Engagement Strategy" (p. 10). As currently worded, the QIA is concerned that BIMC is not committed to incorporate IQ and feedback from Inuit in the revised Project Reclamation Feasibility Analysis outcomes. RECOMMENDATION - QIA requests that BIMC commits to:

- Engaging with QIA in the development of the design and Terms of Reference for the proposed Project Reclamation Feasibility Analysis, as well as in its subsequent review and feedback process once the analysis is completed.
- Including a formal research assessment of active revegetation measures, including seeding, planting, transplants, and soil salvage, within their Project Reclamation Feasibility Analysis;
- Revising the Project Reclamation Feasibility Analysis based on feedback provided by Inuit and IQ holders during the Inuit Engagement Strategy and QIA during their review; and
- If requested by Inuit, IQ holders, or QIA based on the engagement and review of the Project Reclamation Feasibility Analysis, undertake an Active Revegetation Research Program that includes a pilot of active revegetation methods (within comparable settings to the Mary River Project), is guided by Inuit and IQ, and takes into account potential socioeconomic benefits.

ICRP Section 9, **ICRP** Appendix D5, and ICRP Appendix D7 [internal QIA reference comment # ICRP.V6.32]

QIA appreciates BIMC's November 1, 2025 response provided to QIA indicating they are now proposing to conduct annual monitoring for years 0 to 7, in addition to year 15 (9 years of data). However, this is not reflected in Table 9.1 (p. 210), which only shows Terrestrial Environment Monitoring and Reporting during years 0, 1, 2, 3, 5, and 7. RECOMMENDATION - Please adjust Table 9.1 to reflect BIMC's commitment made to QIA.

In addition, BIMC has provided no rationale to justify how their revised Terrestrial Environment Monitoring Program timeline (annual monitoring between years 0-7, and during year 15 post-closure) is sufficient to ensure FEIS predictions are met. It will take more than 40 years to reverse vegetation loss, and it remains unclear how only collecting monitoring data during years 0-7 and year 15 will be sufficient to establish a statistically robust trend that shows residual effects on wildlife lessening over time and resulting in negligible adverse effects post-closure. BIMC should provide reasonable justification for completing monitoring only during years 0-7 and 15 and explain how they will confirm they have met FEIS predictions. Based on available information, BIMC's proposal of evaluating whether additional monitoring years are required at year 15 is insufficient to address QIA's concerns. RECOMMENDATION -QIA reiterates their request that BIMC commits to undertaking terrestrial environmental



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monitoring (wildlife and vegetation) over a period that aligns with the expected trajectory of vegetation recovery in the Project Area, accounts for the natural variation in the use of the Project Area by wildlife, and yields a statistically robust trend that shows residual effects on wildlife lessening over time. At a minimum, QIA requests that this includes regular monitoring between years 0 and 25 post-closure.

ICRP Section 9, **ICRP** Appendix D5, and ICRP Appendix D7 [internal QIA reference comment # ICRP.V6.331

While BIMC noted that their multi-pronged strategy to assess indicators of wildlife usage will include track surveys, monitoring of pellets, and staging of wildlife trap-cameras, it has not provided a clear rationale for the spatial and temporal extent of the above proposed multipronged strategy for monitoring to confirm evidence of habitat use or occupation by indicator terrestrial wildlife during the different seasons and confirm FEIS effect predictions postclosure. Post-closure monitoring is critically important, and BIMC should develop robust, wellplanned methods and schedules to ensure that BIMC can accurately assess whether they have met FEIS effect predictions so that further monitoring and an adaptive response can be implemented, where necessary. QIA continues to have serious concerns with the current lack of information on the multi-pronged strategy for monitoring and limited monitoring time frame. **RECOMMENDATION** - QIA reiterates their request that BIMC commit to:

- Providing clear rationale for 1) the spatial extent of their monitoring, 2) the temporal extent of their monitoring, and 3) the monitoring methodologies to confirm evidence of habitat use / occupation by indicator terrestrial wildlife during the different seasons and confirm FEIS effects predictions post-closure.
- Increasing the temporal extent of their post-closure terrestrial wildlife monitoring during each monitoring year (i.e. more than two weeks) should the QIA, Inuit, or IQ holders deem the above rationale inadequate.

D4, D4.4.5.2 [internal QIA reference comment # ICRP.V6.391

QIA and its subject matter experts have reviewed BIMC's thermal modeling memorandum titled "Assessment of Active Zone Depth Considering SSP1-2.6 Climate Change Projection at Mary River Mine." Upon review, QIA has concluded that the current model lacks sufficient conservatism, does not adhere to best practices, fails to account for site-specific realities, and does not capture any range of possibilities surrounding climate change scenarios. This exposes QIA and the environment to heightened risks and uncertainties. RECOMMENDATION: QIA recommends incorporating multiple climate change scenarios into the thermal modeling process. This approach would provide a more robust assessment of environmental risks associated with the Waste Rock Facility (WRF), particularly concerning the potential increase in active zone thickness and the corresponding need for mitigation measures.

Key Observations by QIA's Subject Matter Experts from Okane:



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While SSP1-2.6 aligns with the Paris Agreement, there is significant uncertainty about Canada's and the global community's ability to achieve the targets associated with this or

- SSP1-2.6 represents the least conservative climate change scenario regarding its thermal impact on the WRF cover system. This choice does not adequately capture potential risks.
- The thermal model is insufficiently conservative given the high degree of uncertainty. As a result, the risks posed by climate change to the WRF are not adequately addressed.
- The model incorporates several simplifications because of a lack of site-specific data. Although these simplifications are reasonable as a preliminary step, their eventual refinement is likely to reveal an increased active zone thickness and a corresponding need for a thicker thermal cover or other mitigation measures.
- In Okane's experience, SSP1-2.6 is rarely, if ever, used as the sole climate change scenario in thermal modeling for waste rock facilities. Mines in Nunavut typically evaluate two or more climate change scenarios. This practice helps assess the sensitivity of thermal cover systems to rising temperatures and understand the environmental implications of selecting specific scenarios. Evaluating multiple scenarios is critical to comprehensively understanding the risks posed to the WRF and other infrastructure at the Mary River Project.

Sincerely,

Conor Goddard

Manager of Project Compliance and Monitoring Qikiqtani Inuit Association (P) 867.975.8385 or toll-free 1.800.667.2742

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