August 15, 2024

Karén Kharatyan
Director, Technical Services
Nunavut Water Board
Gjoa Haven, Nunavut, X0B 1J0

Re: 2AM-MRY1325 Type A Water Licence Renewal Application Information Request Responses

Dear Mr. Kharatyan,

On July 29, 2024, the Nunavut Water Board provided Information Requests from interested parties regarding the completeness check for Baffinland Iron Mines Corporation's (Baffinland's) Type A Water Licence Renewal Application (the Renewal Application). Baffinland is pleased to provide responses to those information requests, which are attached to this correspondence.

We look forward to the next steps in the process.

Sincerely,

Elisabeth Luther
Senior Manager, Regulatory Affairs

Cc: Lou Kamermans (Baffinland)

Table 1. Information Request Responses

Attachment 1. Status of Compliance for 2AM-MRY1325 Type A Water Licence Terms and Conditions

Attachment 2. Type A Water License (2AM-MRY1325) Renewal Application - Water Quality Scatter Plots

Attachment 3. BIM-5200-PLA-0022 Fresh Water Supply, Sewage, and Wastewater Management Plan

Attachment 4. Freshwater Environment Engagement Comments, 2014-2024

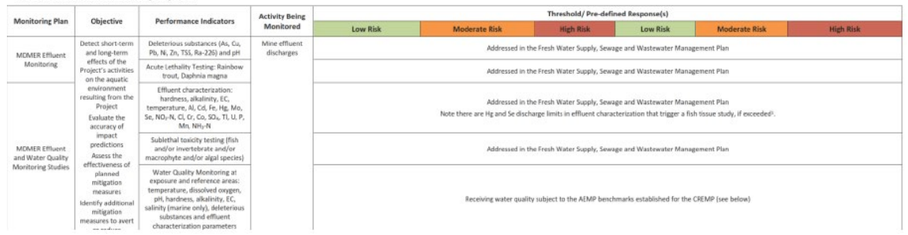
Attachment 5. Mine Site Water Management Plan

ID	Document Reference	Comment	Baffinland Response	Attachment
QIA-1	Supplemental Information Guideline	**Compliance status** The Supplemental Information Guideline states: If the application is for a renewal and/or amendment of an existing licence, provide a compliance assessment/status report. This report must document the status of compliance for each condition of the existing water licence… The Applicant provided information on inspections; however, no full compliance status report was included. **Recommendation:** Please update the Application by providing the compliance status report for each condition of the Licence.	In Section 6 of the Application, Baffinland provided a summary of the inspections and audits conducted by CIRNAC, QIA, NIRB, WSCC, ECCC, DFO and Transport Canada in 2023 and 2024. Baffinland has prepared a compliance status report which provides an overview of Baffinland's self-assessed compliance status for each condition of the Water Licence, included as Attachment 1.	1
QIA-2	Document Name: Application and Supporting Information to Renew Type A Water Licence 2AM-MRY1325; Appendix L8 Aquatic Effects Monitoring Plan Section: S2.2 PROCEEDING WITH THE APPROVED STEENSBY COMPONENT Page: P11	**Geographic scope of plans** While planned activities outlined for the near term of the proposed renewal period (15 years) do not encompass the Steensby Component of the Project, Baffinland has indicated that "*The Steensby Component is adequately covered under the scope of the existing Licence, and thus no amendments to the Licence are expected to be required to advance this part of the Project.*" As Baffinland maintains that the Steensby Component can be pursued under the current/renewed water licence, we expect monitoring and management plans to encompass its geographic scope. We are particularly concerned that the available baseline for the aquatic environment within the Steensby Component has not been updated in recent years, and no monitoring sites are included in the Aquatic Effects Monitoring Program (AEMP). **Recommendation:** Please update the AEMP to include both reference sites and locations that may experience impacts from project activities associated with the Steensby Component. Stations associated with the Steensby Component with existing baseline data may be included to maintain continuity for an extended period of record. These stations are intended to provide an updated geographic and temporal baseline for future works that may reasonably be expected during the renewal period. Alternatively, Baffinland may provide a summary of available baseline information associated with the Steensby Component and rationale as to why updated baseline information is not required. Provision of this information is necessary to assist stakeholders in determining whether sufficient baseline information exists for all activities that may occur during the renewal period that are covered under the licence, and to ensure requisite data are collected in a timely manner if they are not yet available.	No changes to the Steensby Component are being proposed, including to approved components under the Water Licence. As those components proceed, prior to construction relevant plans will be updated in accordance with the established NWB process. As an information update given QIA's expression of interest in this topic, Baffinland has been collecting updated marine baseline data for Steensby Inlet outside of the WL which we expect to implement in an Environmental Effects Monitoring (EEM) program for Steensby. The AEMP scope is for freshwater environment. An EEM program will be conducted in accordance with term and conditions 76 and 99 in NIRB Project Certificate No. 005.	N/A
QIA-3	Document Name: Appendix A Water Licence Section: Proposed time schedule Page: 18/22	Baffinland provides the following dates for the project: **The Mary River Project was constructed in 2013-14 and began operations in 2015. Construction of the Steensby Component will proceed once financing is in place.** Construction Proposed Start Date: 2013 (month/year) Proposed Completion Date: 2014 (month/year) Operation Proposed Start Date: 2028 (month/year) Proposed Completion Date: 2048 (month/year) Closure Proposed Start Date: 2049 (month/year) Proposed Completion Date: 2051 (month/year) Post - Closure Proposed Start Date: 2052 (month/year) Proposed Completion Date: 2056 (month/year) It is unclear how these dates align with the existing project and operations, particularly	The dates align with the Project as approved and operated. It is anticipated the Steensby Component will proceed to construction and operations within the 2025 to 2032 time period. When this occurs, a three to four year construction period is anticipated. Note that marine elements of the Steensby Component are outside the jurisdiction of the NWB.	N/A

ID	Document Reference	Comment	Baffinland Response	Attachment
		given this water licence renewal application includes both ongoing operations as well as construction and operation of the Steensby Component.		
QIA-4	Document Name: Appendix I Baffinland's Response to QIA's Comments on Draft Application; Appendix B Supplementary Information Guideline (SIG) Form Section: 12-1 Page: 5	**Absent summary of existing data** As part of QIA's review of Baffinland's draft water licence application, we requested "(a) summary of all aquatic environment data collected over the existing life of the project. Summaries should be used to demonstrate project compliance with water licence terms and conditions as well as environmental impact assessment predictions." Baffinland has declined to provide this information stating that these summaries are not required for a water licence renewal, per the NWB Guides. QIA disagrees with Baffinland's interpretation of the NWB guidelines as they appear to primarily contemplate a new water licence application rather than one with ongoing history where additional information is available to provide context on the functionality of existing plans and compliance. This understanding appears in line with the Nunavut Impact Review Board's recent memo titled "Clarification of Scope and Conformity Determination in Relation to Baffinland Iron Mines Corp.'s Impact Statement Addendum Associated with the NIRB's Assessment of the "Sustaining Operations Proposal 2" Project Proposal" and dated July 12, 2024, in which they indicated that "The submission must clearly identify where updates to plans and baseline were completed reflecting the 10 years of monitoring of the existing Project and identifying where updates will be required in advance of construction and operations of the Steensby Components" (p9/10). QIA's request is further in line with Agnico Eagle's application to renew the water licence for the Meadowbank Gold Mine project in 2014 (Nunavut Water Board (NWB 2AM MEA0815) Type A Water Licence Renewal Application – Main Supporting Document), in which a more detailed review of existing aquatic environment data was provided. **Recommendation:** QIA reiterates our request for a summary of all aquatic monitoring data to demonstrate compliance with water licence terms and conditions. We note that the reference to the available but un-summarized data within the annual reports indicated in supplemental information guide is insufficient to address this information request.	Knight Piesold prepared a summary of the aquatic monitoring data through water quality scatter plots, which are provided in Attachment 2.	2
QIA-5	Document Name: Appendix I Baffinland's Response to QIA's Comments on Draft Application; Section: 12-2 Page: 5	**Management plans** As part of QIA's review of Baffinland's draft water licence application, we requested that management plans be submitted as part of the licence application, and that *"they include updates that address historical noncompliance with licence terms and conditions, environmental impact assessment predictions, and concerning trends observed in the aquatic environment monitoring data as well as issues identified by stakeholders in their reviews of previous versions of those plans as well as the Annual Reports."* Baffinland has declined to provide this information stating that Baffinland *"provides an updated list of management and monitoring plans for the Project annually as part of the QIA-NWB Annual Report for Operations*." QIA highlighted in our comments on the draft licence application that exceedances of EIS predictions / AEMP benchmarks and water licence terms and conditions have occurred regularly during the operational period (see QIA IR12 in Appendix I for more information). While management and mitigation plans have been updated periodically, it does not appear that these updates have been sufficient to curtail ongoing environmental management concerns.	Per previous communications, the SOP2 does not require any changes to the Water Licence. In accordance with the Nunavut Agreement, SOP2 is being assessed by NIRB and will not proceed unless it is approved by the Minister. In answer to the specific request, Baffinland developed environmental management and monitoring documents to support the original applications for the Approved Project and has continued to update existing plans through its operations. All management plans required under the Water Licence for current operations have been submitted to the NWB in accordance with requirements of the Water Licence. A summary table of the status of management plans required under the Type A Water Licence is provided in Section 7 of the Application. All plans required under the Water Licence are reviewed on an regular basis based on current conditions and Baffinland's annual monitoring activities, as well as to reflect any new commitments made to regulatory authorities or Inuit and Inuit groups. Each individual plan includes a historical revisions sheet which	N/A

ID	Document Reference	Comment	Baffinland Response	Attachment
		Recommendation: Following the completion of the summary of existing environmental data requested in QIA comment "Absent summary of existing data", we request Baffinland use this information to determine which management and mitigation plans require updates and submit those management plans for stakeholder review. We note that Baffinland will already be completing this summary and subsequent plan update following the NIRB request issued in their recent memo titled *"Clarification of Scope and Conformity Determination in Relation to Baffinland Iron Mines Corp.'s Impact Statement Addendum Associated with the NIRB's Assessment of the "Sustaining Operations Proposal 2" Project Proposal"* and dated July 12, 2024, in which they indicated that "*The submission must clearly identify where updates to plans and baseline were completed reflecting the 10 years of monitoring of the existing Project and identifying where updates will be required in advance of construction and operations of the Steensby Components"* (p9/10). This information is a required component of this application as the project will be operating under the licenced period at a 6 Mtpa rate currently requested through Baffinland's SOP2 application to the NIRB.	summarizes previous plan iterations; this gives reviewers an understanding of how each plan has been adaptively revised over time. All updated plans are submitted to NWB and subjected to the public review and comment process. Each individual plan includes a historical revisions sheet which summarizes previous plan iterations; this gives reviewers an understanding of how each plan has been adaptively revised over time. Multiple management plans have undergone or continue to undergo review between Baffinland and the QIA to incorporate the adaptive management mechanisms described in the Adaptive Management Plan, with a priority for the EMPs that relate to narwhal, seal, Arctic char, caribou, dust and culture, resources and land use. Once the active reviews of EMPs are complete, any final plans will be submitted to the NIRB on a timeline to be mutually agreed upon between Baffinland and QIA. This timeline may be subject to change based on both parties' ability to come to mutual agreement on each management plan. Adaptive management has been integrated into the construction, operation, reclamation, and closure of the Project in several capacities, including water use and management, waste management, health, safety, emergency response and contingency, biophysical and atmospheric environment, socio-economic environment, transportation, and Inuit stewardship of the Project.	
QIA-6	Document Name: Appendix I Baffinland's Response to QIA's Comments on Draft Application; Appendix A4 2023 Water Quality Model Update, Waste Rock Facility Report; Appendix L3 – Surface Water and Aquatic Ecosystem Management Plan Section: 12-3 Page: 5	**Modelling** As part of QIA's review of Baffinland's draft water licence application, we requested an updated *"water and load balance model for all discharges and interactions with the aquatic environment that incorporates updated baseline data (relative to the existing licence), climate change predictions extending through and past the requested licence duration and includes model validation using project data collected over the previous water licence period."* Baffinland has declined to provide this information indicating *"runoff from the waste rock facility is treated without long-term storage or recycle before discharge. Similarly, the various sedimentation ponds across the site focus on simple removal of total suspended solids (TSS) prior to discharge to the environment. There is no need for a water and load balance to predict make-up water requirements, or changes to effluent chemistry over time due to recycling or storage with tailings."* We acknowledge that tailings are not present on site and that an updated water quality model has been provided within the Waste Rock Management Plan; QIA submitted comments on that model as part of our submission on the 2023 Mary River Annual Report to the NWB. We remain concerned, however, about whether the water treatment plant will be able to continue meeting effluent quality criteria over the licenced period given the progression of climate change and the more rapid deposition of waste rock stemming from the ongoing 6 Mtpa processing rate. While the water quality model for the WRF has recently been updated using water quality during the accelerated processing rate in recent years, it does not appear to have incorporated more recent climate change predictions and the greater volume of waste rock that may be exposed to weathering over the coming 15-year licence period. **Recommendation:** QIA wishes to refine our request to Baffinland to update the WRF water	With respect to the comments on SOP2, please see response to QIA-5 above. Baffinland will present a schedule for developing an update to the WRF water quality model as part of the next revision to the Interim Closure and Reclamation Plan for the Mary River Project, to be submitted with the 2025 Work Plan on or before November 1, 2024.	N/A

ID	Document Reference	Comment	Baffinland Response	Attachment
		quality model (i.e., the 2023 Water Quality Model Update, Waste Rock Facility Report) to expressly include consideration of climate change and the 6 Mtpa accelerated deposition rate that will continue being implemented should SOP2 be approved to go ahead. The requested modeling should be used to update the SWAEMP, or rationale provided as to why this is not required. This information is requested to provide confidence that effluent quality criteria will continue to be met, and water quality will be maintained within EIS predictions in receiving environment.		
QIA-7	Document Name: Appendix L3 Surface Water and Aquatic Ecosystem Management Plan Section: Table 9-2 - Trigger Action Response Plan - Erosion and Sediment Release Events Page: 36	**Professional judgement in TARPs** Several responses (TSS Exceedance of Water Licence Criteria and Regulatory Feedback triggers) are tied to the statement "If sediment attributed to project infrastructure, review and modify controls". We note in our review of the annual report professional judgement was used in multiple cases (see QIA submission to NWB - QIA 2023 NWB AEMP#3, QIA 2023 NWB CREMP#9, QIA 2023 NWB CREMP#15) to conclude that an observed effect was not attributed to the project. **Recommendation:** In an effort to ensure an objective evaluation of source attribution, we request Baffinland provide objective criteria in the TARP that will be used to determine the source of sediment. We also highlight that any interaction of water with project infrastructure or in the local study area (LSA) is likely to have some contribution by project activities and must therefore be mitigated – this consideration should be included within the attribution criteria. The requested information is intended to provide an opportunity for Baffinland to refine the TARP during these proceedings with input from all stakeholders to ensure the plan functions as intended and constrains project interactions with the aquatic environment to that predicted within the EIS.	This request is outside the scope of the Water Licence renewal. The feedback from QIA is noted and Baffinland will work with QIA to address this request in the next update to the Surface Water and Aquatic Ecosystem Management Plan. It should be noted that the NWB circulates relevant management plans for intervenor comments and then subsequently approves management plans under the Water Licence, and this request should be addressed during the referenced process.	N/A
QIA-8	Document Name: Appendix L4 Fresh Water Supply, Sewage, and Wastewater Management Plan (FWSSWMP) Section: Table 3 Water Use Authorized for Dust Suppression Along the Tote Road Page: 1of 5 P13	**Water withdrawal limits and restrictions** The table indicates a restriction on water taking during low flow years, constraining water takings to June and July (i.e., during and following freshet). In light of climate change and increased variability in flows, it is unclear whether these factors have been considered in the water withdrawal window. **Recommendation:** Please provide a discussion as to whether additional restrictions may be required to mitigate and manage impacts to the aquatic environment stemming from water withdrawal activities. QIA is particularly interested in incorporating precipitation conditions/snowpack accumulation as a potential criterion for further restricting water withdrawals (in addition to ambient flow conditions) that are reasonably expected to result in lower than mean flows.	None of the water withdrawal sites with restrictions were used in 2023. The majority of water for dust suppression is withdrawn from Km32 Lake, CV128, and Muriel Lake. The streams that are regularly used are all large, including the north tributary of Phillips Creek (CV128), the Ravn River (BG50), the outlet of Muriel Lake (CV217), and the Tom River (CV233). Regarding climate change, both the observed and projected changes in polar regions is an increase in river runoff due to increased precipitation (Intergovernmental Panel on Climate Change, 2022, Cross-Chapter Paper 6: Polar Regions). Baffinland agrees that additional sites may be required and will seek approvals through the NWB to permit additional water withdrawal sites.	N/A
QIA-9	**Document Name**: Appendix L4 FWSSWMP **Section**: 7.2.1 Milne Port Stockpile Surface Water Management Ponds **Page**: 1of 5 P28	**Applicable regulations for Milne Port discharges** At present, water licence criteria are applied to discharges from Milne Port surface water management ponds. This water is in contact with process materials, including the ore stockpile **Recommendation:** The current licence regulates the discharges to the marine environment from the Milne Port surface water management ponds due to the potential to impact freshwater. We therefore request Baffinland provide a discussion as to why discharges of water that has come into contact with the processed ore to the marine environment are not subject to the *Metal and Diamond Mine Effluent Regulations* (MDMER).	NWB does not regulate discharge to the Marine Environment and this is therefore out of scope of this application. Per discussions with Environment and Climate Change Canada (ECCC), the Metal and Diamond Mine Effluent Regulations (MDMER), do not apply to marine discharges at Milne Port.	N/A

ID	Document Reference	Comment	Baffinland Response	Attachment
QIA-10	Document Name: Appendix L8 Aquatic Effects Monitoring Plan; Appendix L4 FWSSWMP Section: Table 5.2 TARP Table Page: P66	Baffinland includes the following section in the TARP table:  TABLE 5.2 TRIGGER ACTION RESPONSE (TARP) TABLE Monitoring Plan / Objective / Performance Indicators / Activity Being Monitored / Threshold/ Pre-defined Response(s): Low Risk / Moderate Risk / High Risk / Low Risk / Moderate Risk / High Risk MDMER Effluent Monitoring — Objective: Detect short-term and long-term effects of the Project's activities on the aquatic environment resulting from the Project; Evaluate the accuracy of impact predictions; Assess the effectiveness of planned mitigation measures; Identify additional mitigation measures to avert … — Performance Indicators: Deleterious substances (As, Cu, Pb, Ni, Zn, TSS, Ra-226) and pH; Acute Lethality Testing: Rainbow trout, Daphnia magna — Activity Being Monitored: Mine effluent discharges — Addressed in the Fresh Water Supply, Sewage and Wastewater Management Plan MDMER Effluent and Water Quality Monitoring Studies — Performance Indicators: Effluent characterization: hardness, alkalinity, EC, temperature, Al, Cd, Fe, Hg, Mo, Se, NO_3-N, Cl, Cr, Co, SO_4, Tl, U, P, Mn, NH_3-N; Sublethal toxicity testing (fish and/or invertebrate and/or macrophyte and/or algal species); Water Quality Monitoring at exposure and reference areas: temperature, dissolved oxygen, pH, hardness, alkalinity, EC, salinity (marine only), deleterious substances and effluent characterization parameters — Addressed in the Fresh Water Supply, Sewage and Wastewater Management Plan; Addressed in the Fresh Water Supply, Sewage and Wastewater Management Plan; Note there are Hg and Se discharge limits in effluent characterization that trigger a fish tissue study, if exceeded[1]; Addressed in the Fresh Water Supply, Sewage and Wastewater Management Plan Receiving water quality subject to the AEMP benchmarks established for the CREMP (see below) We note that issues with MDMER monitoring and compliance are deferred to the FWSSWMP. However, no TARP table is present in the FWSSWMP to provide clarity on what thresholds and pre-defined responses may be appropriate to handle issues pertaining to MDMER "effluent monitoring" and "effluent and water quality monitoring studies".	This was an administrative oversight, as the wrong version of the FWSSWMP was included with the renewal application. The current version of the FWSSWMP, submitted with the 2023 NIRB Annual Report, includes a TARP table. The latest version of the FWSSWMP is provided in Attachment 3. The TARP tables are provided in Table 17 of the Plan, which can be found on pages 39-40 of the pdf. Baffinland will review the TARP table in the current FWSSWMP and make any further updates based on intervener comments for the referenced components. Please note that this will be applicable to water licence and MDMER effluent monitoring; however, water quality monitoring studies are governed by EEM requirements under the *MDMER*.	3
QIA-11	Document Name: Mary River Project Application and Supporting Information to Renew Type A Water Licence 2AM-MRY1325 Section: 5.1 Page: 11 of 19	**Camp Lake water quality** The document states: "(a)rsenic, copper, iron, manganese, and phosphorus concentrations were above the AEMP sediment quality benchmarks at individual stations in Camp Lake; however, average concentrations of these metals were below respective benchmarks, were comparable to background, and/or were comparable to concentrations at Camp Lake during baseline." Baffinland Iron Mine collects a wealth of monitoring data from the neighboring aquatic and terrestrial environments. A key component of the AEMP is the evaluation of water and sediment quality data against respective benchmarks and background concentrations. A method employed to simplify the data analysis and discussion of results was to present the mean value for each sediment and water quality parameter. However, raw values not average values, need to be reported when comparing to water quality guidelines. For instance, pulse events during spring freshets or summer rainstorms may enhance delivery of substances of concern to nearby waterbodies resulting in exceedances of water or sediment quality guidelines. These important, yet sporadic events, are likely to be masked if only the average is compared to water or sediment quality guidelines. **Recommendation:** Please provide the water and sediment quality data as raw values initially to compare to guidelines and benchmarks then provide the averages or medians for further statistical analyses. Please provide rationale or criteria for selecting these elements.	Water and sediment quality data for individual stations by sampling event at Camp Lake are provided annually in the CREMP report. Within in CREMP report, these data are compared to applicable Water Quality Guidelines and Sediment Quality Guidelines for the protection of aquatic life (e.g., to CCME) as well as to Baffinland's AEMP benchmarks, the latter of which were developed considering a combination of site-specific baseline data and relevant CCME guidelines. Please refer to the annual CREMP report produced by Minnow (2024) for raw (and summarized) data collected in 2023, as well as to Minnow 2023, 2022, and 2021 for data collected and compared to guidelines/benchmarks over the three years previous to the most recent report. Individual metal concentrations from sediment collected at Camp Lake were compared to CCME sediment quality guidelines/AEMP benchmarks for all parameters in which numerical criteria have been developed, including arsenic, cadmium, chromium, copper, iron, lead, manganese, mercury, nickel, phosphorus, and zinc. Of these, only five parameters (arsenic, copper, iron, manganese, and phosphorus) were shown to have concentrations above the AEMP benchmarks at some of the stations established on Camp Lake. Baffinland did not intend to imply that concentrations of only these five parameters were examined/compared to the AEMP benchmarks for Camp Lake sediment quality assessment. On an annual basis, water quality and sediment quality data collected from all waterbodies sampled as part of the CREMP are compared against all available CCME freshwater environment water and sediment guidelines for which numerical criteria have been developed, as well as against Baffinland AEMP benchmarks. The AEMP benchmarks were established for those parameters (including individual metal elements) that had available CCME guidelines or, for those without applicable CCME guidelines, that had been identified to be of potential site-specific concern during analysis of bulk samples and/or baseline sampling (benchmarks for the latter were developed in	N/A

ID	Document Reference	Comment	Baffinland Response	Attachment
			consideration of various provincial guidelines/objectives). Thus the rationale for selection of parameters for which AEMP benchmarks were developed is the same as that used by CCME (and/or territorial authorities) during establishment of the guidelines for each individual parameter.	
QIA-12	Document Name: Appendix L4 FWSSWMP Section: 7.2.5 Page: 30	**KM105 Pond** In the FWSSWMP, Baffinland states: "(r)egular geotechnical inspections will also be conducted, along with the removal of accumulated sediment in the pond as required." The KM105 surface water management pond collects snowmelt runoff and storm water originating from the mine haul road. These water and sediments have the potential to possess elevated concentrations of substances of concern. The removal of this sediment may have negative consequences if released back to the surrounding aquatic or terrestrial landscape. It is unclear if Baffinland Iron Mines is testing the sediment for metal(loid) concentrations prior to removal. **Recommendation:** We request Baffinland Iron Mines provide the description of the process for removal of sediment from KM105 Pond. What are the processes for removal of sediment? Are there guidelines or thresholds set?	The sediment storage capacity at the KM105 pond is approximately 1 m. Once sufficient sediment has accumulated in the pond, it will be removed in the fall when the pond has been drawn down. Sediment will be disposed of in the Waste Rock Facility. Runoff from the WRF is monitored and treated prior to disposal. The sediment will eventually be frozen into the waste rock. Baffinland will collect and analyse samples of accumulated sediment to confirm if elevated concentrations of substances of concern are present.	N/A
QIA-13	Document Name: Mary River Project Application and Supporting Information to Renew Type A Water Licence 2AM-MRY1325 Section: 5.1 Page: 11 of 19	**CREMP early detections of mine water quality influence** The document states: "(d)uring the 2023 CREMP monitoring program, mine-related influences on water quality was detected in tributaries to Camp Lake (Minnow Environmental, 2024). At Camp Lake, no AEMP water quality benchmarks were exceeded in 2023 and no mine-related influences on water quality were indicated." This trend appears to be suggesting that the CREMP has detected early effects of mine influence on the aquatic environment. With time and additional flow contribution, these effects may amplify downstream until they also influence water quality and aquatic biota in Camp Lake. **Recommendation:** Please provide the cause of these water quality changes and what actions have been taken to address the cause to prevent further influence within the watershed.	Changes in concentrations of parameters in water at tributaries discharging into Camp Lake over time have been investigated as part of Baffinland's annual CREMP monitoring. In monitoring conducted at one of three tributaries (i.e., CLT1), total concentrations of iron, molybdenum, sodium, sulphate, and uranium and dissolved concentrations of uranium in water at upper-most portion of this tributary in 2023 appeared to be elevated compared to concentrations at this location during baseline and compared to concentrations shown at representative reference creeks which suggested a mine-related cause. However, concentrations of these and all other parameters assessed (total of 82, including concentrations of total and dissolved fractions for 32 metals) were not elevated relative to baseline and reference conditions within the lower portion of the (CLT1) tributary that feeds into Camp Lake, nor in either of the two other monitored tributaries that feed into Camp Lake, in 2023. Therefore, to date, the potential effects of mine operations at the (CLT1) tributary appear to be localized only to the upper portion of the system and do not extend to Camp Lake. Actions taken to date have included implementation of a temporal trend analysis on the change in iron concentration at CLT1 Tributary over time, and addition of benthic invertebrate community monitoring in the upper portion of the tributary to determine potential effects on aquatic biota associated with elevated iron concentrations. The temporal trend analysis indicated no increasing trend in total iron concentrations over the mine operational period at the CLT1 upper portion (i.e., there was a step-increase in total iron concentration at this location since baseline, but no increasing trend over the operational period was evident; Minnow 2023, 2024). Benthic invertebrate community monitoring (as well as on-going phytoplankton monitoring) has not indicated any adverse effects to aquatic biota in the upper CLT1 Tributary, nor to biota within the lower CLT1 Tributary and other tributaries discharging into	N/A

ID	Document Reference	Comment	Baffinland Response	Attachment
			Camp Lake. In 2024, a temporal trend analysis for molybdenum, sodium, sulphate, and uranium parameters will be conducted to better characterize the potential effects of mine operations on concentrations of these parameters in the CLT1 system. Should a mine-related influence be indicated, additional measures may be implemented consistent with Baffinland's existing AEMP Data Assessment Approach and Response Framework and/or proposed Trigger-Action Response Plan (TARP). Potential responses may be to identify the specific mine-related cause for elevated concentrations, implementation of weight-of-evidence risk assessment, and development of mitigation to address on-going and/or increasing impacts associated with an elevation in parameter concentration above AEMP benchmarks.	
QIA-14	Document Name: Appendix L4 FWSSWMP Section: 7.0 Page: 24 of 69	**CREMP early detections of mine water quality influence** The document states: "(c)ontact water for the purposes of this Plan is defined as water that has come in contact with ore or waste rock; it is considered equivalent to mine effluent as defined under the MDMER." Given the porosity of pond KM105, there is a potential for contact water to be diverted into roadside drainage ditches that convey runoff into the natural environment. QIA is concerned that not all contact water is being captured and treated in the proper treatment ponds. **Recommendation:** Please provide information on how much contact water makes it into the natural environment based on site investigations. Are field-verified drainage catchment maps available for each treatment pond and the roadside ditches?	Baffinland will update the definition of 'Contact Water' in the next update to the FWSSWMP to align with the definitions of an Effluent in the *MDMER*. Baffinland provides a description of each facility and how Contact water is managed for the referenced sites. Contact water from existing waste rock facility (WRF) material is currently collected in perimeter ditches that direct water to a surface water management pond (MS-08) where monitoring is conducted to determine whether treatment is required at the facility Water Treatment Plant (WTP). The processes employed at the WTP include lime/sodium bicarbonate addition and sedimentation for pH adjustment and solids removal. Effluent from the WRF surface water management pond and/or WTP, which is monitored for compliance at a Final Discharge Point (FDP) sampling port at the outlet of a pump system at Station MS 08, is piped to an overland location that flows into Mary River Tributary-F. Stormwater runoff from the ore crusher and stockpile pad is collected in ditches and directed to a second surface water management pond (MS-06). Water retained in MS-06 surface water management pond is treated for solids removal via pond-based settling. Effluent from this pond is pumped to an outflow located approximately 300 m from Mary River. Surface runoff from KM106 Run-of-Mine Ore Stockpile pad is collected and treated at a third surface water management pond that, following pond-based settling for solids removal, the effluent from which is directed to Mary River. Stormwater runoff from overall mine operations (e.g., road between the pit and ore crusher/stockpile pad) is collected in roadside ditches and directed to the KM105 surface water management pond. Water retained in KM105 surface water management pond is treated for solids removal via pond-based settling, as well as potential treatment in a WTP using flocculent addition, pH adjustment and geotube settling. Effluent discharge from this pond, if required (including potential seepage), flows into Sheardown Lake Tributary 1 (SDLT1) that subsequently discharges into the northwest basin of Sheardown Lake. Through these series of collection/roadside ditches, all contact water is directed to surface water management ponds for treatment and subsequent discharge to various receiving waterbodies at controlled compliance points for which effluent limits have been established. No contact water is known to reach aquatic systems outside of the existing collection ditch network. Previous or ongoing seepage	N/A

ID	Document Reference	Comment	Baffinland Response	Attachment
			events are reported but have not resulted from diversion of roadside drainage ditches that convey runoff into the natural environment. These would be considered non-contact diversion ditches.	
QIA-15	Document Name: Appendix L10 Interim Closure and Reclamation Plan Section: Table 1.1 "Outline Of Major Reclamation Activities at Each Mine Area" Page: 14 of 386	**Stormwater management pond reclamation** It is not clear what reclamation activities are planned for stormwater management and treatment/holding ponds. These water treatment features will likely have collected large volumes of contaminated sediment that may require careful disposal techniques to ensure environmental effects are mitigated. **Recommendation:** Please provide the methodologies proposed for reclamation and decommissioning of stormwater and other treatment ponds upon mine closure.	Ponds will be decommissioned by removing any remaining water, followed by removal of any accumulated sediment. The current plan is sediment will be disposed of in the Waste Rock Facility. Runoff from the WRF is monitored and treated prior to disposal. The sediment will eventually be frozen into the waste rock. Following removal of water and sediment, liners will be removed and disposed in the on-site landfill, and berms will be re-graded and levelled. Baffinland will collect and analyse samples of accumulated sediment from ponds on site to confirm if elevated concentrations of substances of concern are present.	N/A
QIA-16	Application and Supporting Information to Renew Type A Water Licence 2AM-MRY1325 Appendix I – Baffinland's Response to QIA's Comments on Draft Application Cover letter.	**Inuit Engagement** NWB's "Water Licence Application Form Information Requirements" for section 20 of the application state that the Proponent must "Provide a summary of any consultation meetings including when the meetings were held, where and with whom". It states that the Proponent must "(p)rovide a summary of the results of consultation meetings including a list of concerns expressed and measures proposed to address concerns." Baffinland has not included with this application a summary of consultation meetings that addressed Inuit concerns about the Project's effects on water quality, quantity and flow through Inuit Owned Lands (IOL) or on how the Project may impact Inuit water rights. Baffinland's summary of Inuit engagement around water in Section 4 of its "Application and Supplementary Information" document provides only a list of meetings and their dates, with no summary of what was addressed in these meetings and no list of concerns. This information is required to assess how Inuit values, concerns, and impact-related issues about water have been addressed by Baffinland. Additionally, in their response to comment 9 in Appendix I, Baffinland states that feedback from Inuit is integrated into the Fisheries Act Authorizations applications and the annual Water Licence reports. However, the Fisheries Act Authorizations and annual reports are separate processes with different concerns and requirements. For the purposes of this water licence process, a detailed record of how Inuit communities were engaged about impacts on water and to their water rights is required. This information would give QIA, other parties the opportunity to determine whether concerns about water have been adequately addressed, whether engagement has been adequate, and whether and what further engagement around these issues is required. It would also enable the NWB to make a well-informed decision regarding Inuit concerns about the Project's impacts to Inuit water rights. QIA also requires more detailed information about how Inuit communities were engaged about water rights for the Steensby component. This is required in order to assess whether consultation around the Steensby component has been adequate, especially given that more than a decade has elapsed since the original water licence that included Steensby in its scope. Much may have changed since this time, including Inuit understandings of and perspectives on the Project and its impacts on waters and Inuit water use. Baffinland argues in their cover letter to this application and in the application itself, that this application is a renewal of the same terms, conditions and water use and waste discharge volumes and practices, implying that the application therefore should not be subject	Baffinland compiled a list of comments raised during engagement activities in relation to the freshwater environment between 2014 and 2024. Baffinland's responses to the comments are also summarized. These are presented in Attachment 4.	4

ID	Document Reference	Comment	Baffinland Response	Attachment
		to close scrutiny regarding the Project's ongoing and likely future impacts to the waters in IOL. However, significant differences exist between the existing water licence as approved in 2013 and amended in subsequent years, all of which merit more engagement: · The fact that Inuit observations/experience of effects differs from BIMCs estimations and monitoring; · The 30% increase of ore hauled via Tote Road from the original water licence, which was not adequately evaluated for its potential increase the magnitude and severity of impacts to Inuit water; · The lack of IQ data collection in the period between the original water licence and now; · The fact that the Steensby component was never built and that there has not been adequate engagement or data collection (including Inuit Qaujimajatuqangit) for that portion of the project; · The lack of a meaningful cumulative effects assessment, resulting in a lack of knowledge about how the Project and other human-caused changes are impacting water and how this has changed over time; · Significant gaps in water monitoring and the need for more IQ. Each of these issues would by themselves merit greater discussion on the water licence application. In combination, these issues make it critically necessary that Baffinland provide evidence of significant further engagement between Baffinland and Inuit parties. **Recommendation:** QIA requires a detailed record of Baffinland's recent engagement with Inuit about freshwater use (e.g., from 2015 to present), including a list of Inuit concerns related to water and Baffinland's plans to address those concerns, for both the Steensby component and current operations. QIA requires more information on the form of the meeting; how long the meeting lasted; what was presented at the meeting; how feedback was sought; what feedback was received; and how this feedback has been acted on.		
QIA-17	Application and Supporting Information to Renew Type A Water Licence 2AM-MRY1325	**Inuit engagement** Page 11 of the "Application and Supporting Information" document states that "(a) potential Project related change is defined as a greater than 50 mg/L increase in TSS concentrations in the downstream sample when upstream concentrations are less than 250 mg/L. When concentrations are greater than 250 mg/L in the upstream sample, a potential Project related change is defined as a greater than 20% increase in TSS concentrations in the downstream sample." Inuit Qaujimajatuqangit uses visual and other sensory observations to determine whether water is in natural and good condition. These are obviously not reflected in the technical measure used by Baffinland. Baffinland provides no information about whether and, if so, how Inuit were engaged to determine dust-related monitoring thresholds and what constitutes a Project-related change related to dust. **Recommendation:** QIA requires detailed information about whether and how Inuit were engaged to determine dust-related monitoring thresholds and what constitutes a Project-related change related to dust.	The QIA has assumed the role of leading the development of Inuit based objectives, indicators, thresholds and responses (OITR's) for freshwater valued components including dust (i.e. TSS) and Arctic char. This commitment is reflected in Project Certificate 005, Amendment No. 005, Appendix B, Table 1, Commitment #018, and QIA's responsibility towards Inuit OITR's has been further clarified through the Baffinland-QIA Adaptive Management Plan (AMP) Working Group and the development of an associated AMP Work Plan. Baffinland looks forward to advancing the work of the AMPWG and reviewing the Inuit OITR's as they are developed, agreed to and integrated into environmental management plans, as required. Relevant PC005, Amendment No 005, Appendix B Commitments for Reference: Table 1, Commitment #018 - QIA and Baffinland jointly develop and approve, by April 2024, the adaptive management elements for monitoring programs and Inuit Objectives, Indicators, Thresholds and Responses for the Adaptive Management Plan related to narwhal, seal, Arctic char, caribou, dust and culture, resource and land use.	N/A
QIA-18	Application and Supporting Information to Renew Type A Water Licence 2AM-	**Inuit Qaujimajatuqangit** Baffinland's responses and rationale in this Application are not based on an adequate	Appendix J of the Application is a high-level summary of waterbody information shared through available Inuit Knowledge. This document specifically	N/A

ID	Document Reference	Comment	Baffinland Response	Attachment
	MRY1325. Appendix A – Application for Water Licence Renewal. Appendix I – Baffinland's Response to QIA's Comments on Draft Application. Appendix J – Summary of Inuit Knowledge of Waterbodies Important to Inuit QIA. 2023. Qikiqtani Inuit Association Review of Baffinland's 2022 Qikiqtani Inuit Association and Nunavut Water Board Annual Report for Operations	foundation of Inuit Qaujimajatuqangit. This information is necessary to inform Baffinland and the NWB's understanding of water values, locations, baseline conditions, and changes that have occurred over the past >10 years. This information was not adequately collected to inform Baffinland's original application for their existing Type A water licence and has not been adequately collected in the intervening period. Such information is required in order to adequately assess Project impacts to Inuit water use in the past 10 years of Project operation. The summary of Inuit Qaujimajatuqangit provided by Baffinland in Appendix J to this application provides some description of Inuit traditional use of water and freshwater fishing in the project-affected area. However, Baffinland's summary downplays the scale and importance of Inuit waterbodies in the Project-affected area and omit Inuit Qaujimajatuqangit on recent impacts. This is problematic, especially considering that Baffinland has elsewhere acknowledged Inuit concerns about dust and other Project impacts to fresh water and fish. This omission discredits the idea (well-rooted in Inuit observations) that Project-related dust is a form of substantial contamination, and that this contamination spreads via air and is visibly present in snow at substantial distances from the project development area and released in pulses as snow melts and water flows across the landscape. Additionally, Appendix J contains no summative, synthesizing mapping or analysis. The report includes a mixture of different maps and information from past studies but does not provide any one map or information summary that synthesizes the information, showing the relative locations and importance of waterbodies used by Inuit. The report only discusses locations in the context of the study that identified them. As a result, the document does not show the full extent of waterbodies of importance for Inuit. The IQ evidence provided by Baffinland also does not deal with the central issue of the degree to which the Project has caused Inuit avoidance and barriers to access in areas in and around the project development area. Because the different data streams presented in Baffinland's summary are never analysed together, we never get a map showing how all the different water courses around the Project Area are used for different purposes by Inuit. This information will be augmented by the forthcoming Pond Inlet Freshwater study from QIA, in which Pond Inlet community members alone identified hundreds of water values in the project area as a whole, including but not limited to: · Sites and areas used for gathering freshwater for drinking and other uses; · Important Arctic char habitat, including spawning rivers and overwintering lakes; · Important water crossings on travel routes that are relied upon to access hunting grounds and other communities; and · Important fishing sites relied upon for traditional food harvesting. This study will be published by QIA in the near future, and its results will be material to this NWB process. **Recommendation:** QIA requests that the Applicant provide the outstanding information.	summarizes relevant freshwater information found in the Nunavut Atlas, Nunavut Wildlife Harvest Study, the Mary River Inuit Knowledge Study, the Nunavut Coasta Resource Inventories, the Mary River Phase 2 Proposal Community Risk Assessment Workshops and the QIA's Tusaqtavut Studies. Since 2019 Baffinland has funded several IQ and Inuit Knowledge studies by agreement with QIA. Of particular relevance to the freshwater valued component is the complete series of Tusaqtavut Studies (which included a 'fishing and freshwater' pathway component) for the 5 North Baffin communities and a series of freshwater IQ studies. Unfortunately, the information collected by QIA through the Tusaqtavut Studies was not supported by release forms that grant Baffinland access to that information in sufficient detail to meaningfully supplement the existing record of IQ collected by Baffinland itself, as presented in Appendix J. Baffinland appreciates that the QIA intends to complete the freshwater IQ studies it commenced in 2020, however, the QIA cannot reasonably expect Baffinland to have presented information in Appendix J, which it funded but has not to date been provided access to. Since 2020 the QIA has negotiated and agreed to the responsibility towards numerous plans, programs and studies intended to enhance the availability of IQ relevant to the Mary River Project in a manner that meets the QIA's expectations (See Project Certificate 005, Amendment No 005, Appendix B, Table 1, Commitments 018, 019, 020, 024, 028, 043, 047 and Table 2, Commitments 013). Baffinland has agreed to provide QIA the funds and space to carry out these commitments and continues to be supportive of QIA leadership in this area. Should the QIA advance its obligations to completion, Baffinland looks forward to integrating the results as relevant into it's environmental management system and future regulatory applications. In the interim Baffinland believes the IQ and Inuit Knowledge reflected in Appendix J is sufficient context for the NWB's consideration of the Type A Water License renewal. **Relevant PC005, Amendment No 005, Appendix B Commitments for Reference:** **T**able 1, Commitment #018 - QIA and Baffinland jointly develop and approve, by April 2024, the adaptive management elements for monitoring programs and Inuit Objectives, Indicators, Thresholds and Responses for the Adaptive Management Plan related to narwhal, seal, Arctic char, caribou, dust and culture, resource and land use. Table 1, Commitment #019 - Baffinland will support and fund the establishment of the Inuit Stewardship Plan (ISP). Funding will commence November 1st, 2022 and will continue until the completion of the ISP, estimated to occur together with approval of the AMP in April 2024. Baffinland will fund QIA's work to develop the ISP through Monthly Payments which shall commence on	

ID	Document Reference	Comment	Baffinland Response	Attachment
			November 1st, 2022. QIA will provide the “ISP Workplan” (including a description of the work completed to date and intended inclusion of assessments/studies from QIA-07, QIA-08, QIA-09, QIA-11, QIA-12, QIA-13, QIA-17, QIA-21B, QIA-21F and QIA-23) by October 15th, 2022. QIA agrees to consider payments received by Baffinland for Inuit Certainty Agreement (ICA) implementation received to date as partial payment towards this commitment according to a payment reconciliation completed by QIA not later than October 15, 2022, to determine the outstanding ICA payment amount currently available (the “ICA Implementation Payment Amount”). Completion of the payment reconciliation will ensure Baffinland is prepared in advance to provide funding over and above the ICA Implementation Payment Amount, should that be required. Baffinland will be entitled to reduce Monthly Payments against the amount of the outstanding ICA Implementation Payment Amount, provided the outstanding ICA Implementation Payments are not required for other agreed upon purposes. QIA will provide Quarterly Reports describing activities undertaken, updates to work plans, and, a summary of actual expenses relative to Monthly Payments received. Baffinland will be entitled to reduce future Monthly Payments according to any unspent Monthly Payments as summarized in QIA Quarterly Reports. Table 1, Commitment #020 - Baffinland will resource QIA’s development of Culture, Resource Land Use, the Pond Inlet Country Food Baseline, and Inuit Stewardship Plan according to the “ISP Work Plan” and “Monthly Payments” referred to in QIA ID-08 Table 1, Commitment #024 - With 30 days of completion, Baffinland will provide NIRB with: a. Pond Inlet Country Food Baseline Study, verified by QIA and Pond Inlet; b. Culture, Resource Land Use (CRLU) Assessment verified by QIA and the Project-affected communities; Furthermore, Baffinland agrees that when submitting these reports to NIRB Baffinland will also provide an “Action Plan” detailing the monitoring, mitigation(s) and accommodation(s) of impacts on CRLU. Table 1, Commitment #028 - Baffinland agrees to resource QIA to establish an Inuit-led monitoring program on dustfall as an Inuit Stewardship Pilot program to establish the mechanisms needed to allow Inuit observations to influence mitigation measures and test appropriate Adaptive Management Plan structures, which are demonstrably responsive to Inuit Objectives Indicators Thresholds and Responses, with the budget and work plan agreed upon by Baffinland and QIA consistent with Condition No. 8. Table 1, Commitment #043 - Baffinland to resource annual snowpack sampling	

ID	Document Reference	Comment	Baffinland Response	Attachment
			and monitoring through the Inuit led dust monitoring program (see related commitment to Inuit led monitoring at QIA-ID-08). Note – Baffinland accepts a funding role but wants to ensure it does not duplicate efforts already agreed to in relation to the Inuit led dust monitoring program. Table 1, Commitment #047 - Baffinland will support the development of a snow quality metric, integrating traditional knowledge, as part of the development of Inuit OITRs related to dust from QIA-ID- 7. Table 2, Commitment #013 - Baffinland commits to fund the development and implementation of the Inuit Stewardship Plan until March 31, 2025. The Qikiqtani Inuit Association will develop a draft Inuit Stewardship Plan Work Plan and seek agreement on a reasonable budget with Baffinland by September 30, 2023. The work plan will include dates for the completion and delivery of the: • Pond Inlet Country Food Baseline Report • Culture, Resource and Land Use Assessment • North Baffin Caribou Study	
QIA-19	Application and Supporting Information to Renew Type A Water Licence 2AM-MRY1325. QIA. 2024 (Forthcoming). Inuit Qaujimajatuqangit On and Use of Freshwater Resources Study for Baffinland's Mary River Iron Mine Project.	**Inuit indicators and measures** According to the NWB'S Water Licence Application Form Information Requirements document, this section should provide "detailed information about the content of annual reports" and should provide "water related monitoring results". However, Baffinland's responses in section 5 of the "Application and Supplementary Information" document do not provide adequate detail about the Project's existing water use from an Inuit perspective. It includes no description of how Inuit Qaujimajatuqangit, Inuit measures of water quality, and Inuit-led monitoring informed the annual reports or monitoring activities. QIA has repeatedly stressed the importance of actively integrating IQ and Inuit perspectives into water monitoring in order to adequately gage impacts to Inuit water use. Impacts to Inuit water rights cannot be assessed through the use of Western scientific measures alone. Inuit may have different perspectives on the nature and extent of effects and must be engaged to determine the "project development area" and the locations of water stations. Without this information, we cannot know whether all impacts are being captured and adequately characterized. Additionally, the Application should include information showing how water was evaluated using Inuit measures. This includes Inuit indicators of water quality including: · Water Colour and Clarity · Water Taste and Smell · Water Temperature · Rate of Flow (for rivers and creeks) · Waterbody Size, Depth and Connectivity · Riverbed or Lakebottom · Vegetation · Animals/ Invertebrates · Past Inuit Use · Degree of Visible Human Disturbance · Quality of Fish and Fish Habitat	Baffinland believes the IQ and Inuit Knowledge reflected in Appendix J is sufficient context for the NWB's consideration of the Type A Water License renewal. For additional detail on joint agreements by Baffinland and QIA, which are intended to increase the availability of IQ and Inuit Knowledge in relation to the Mary River Project, see Baffinland's response to QIA-17 and QIA-18.	N/A

ID	Document Reference	Comment	Baffinland Response	Attachment
		Recommendation: Please provide information on the Project's existing water use from an Inuit perspective		
QIA-20	Application and Supporting Information to Renew Type A Water Licence 2AM-MRY1325 Appendix A – Application for Water Licence Renewal.	**Cumulative effects** Impacts to Inuit water rights and Culture, Resources and Land Use (CRLU) related to water have not been characterized in the context of cumulative effects to water. Cumulative effects on water have not been adequately characterized by Baffinland, whose previous submissions on this matter only considered a narrow range of directly overlapping factors and processes. This is the case both in the areas already impacted by the portions of the project already developed, and in the areas which have yet to see activation of major project physical works and activities. Cumulative assessment is essential to provide an accurate picture of current and evolving conditions to Inuit water rights from the project and other processes. The forthcoming required cumulative effects assessment under the NIRB may be useful here. Better understanding of total cumulative effects loading should be required before making decisions on whether the terms of the current water licence and the proposed extension period are adequately protective of water. **Recommendation:** Baffinland should include updated cumulative effects analysis in its Application showing how Inuit concerns about water have been impacted by the full range of factors.	A cumulative effects assessment is outside the scope of the Water Licence renewal. Baffinland has an agreement with QIA, under the Inuit Stewardship Plan, which mandates the completion of a CRLU Assessment and the development of a CRLU Monitoring Program. This initiative will enhance the ability of communities to identify and address potential cumulative effects.	N/A
QIA-21	Application and Supporting Information to Renew Type A Water Licence 2AM-MRY1325	**Reliance on older information** *NOTE: QIA is well aware that IQ accumulates over time and some aspects of it remain consistent over time. And QIA respects that the knowledge of Inuit land users, especially elders, never "stale dates" and is always valuable and informative. Any concerns raised herein are about the need to update IQ over time and as things change, using additional information from elders and new information from new land users.* Throughout this application, Baffinland is heavily reliant on information collected for its 2012 FEIS and subsequent 2013 addendum. QIA is concerned that the information gathered and analysis conducted on both the Project as a whole and on Steensby in particular is from sources that are over decade old, may need to be substantively updated, and that reliance on it seems imprudent and not precautionary in nature. In particular, there is recognition by the NIRB, Inuit parties and Canada that Inuit observations of impacts differ from Baffinland's noted effects estimation sources. Baffinland states that the predicted environmental impacts of the undertaking and proposed mitigation measures are the same as those considered in the existing water licence (Appendix A, 11) and relies on information in its 2012 FEIS and 2013 addendum. This information is over a decade old and did not adequately consider Inuit measures of environmental conditions related to water in the first place. QIA again requests the inclusion of this information in this water application. Additionally, SOP2 considers increasing ore haulage via Tote Road by 30% (4.2mtpa annually to 6.0mtpa). That means a potential increase of dust emissions, waste rock storage, and consequent impact on freshwater. **Recommendation:** BIMC should identify how it has updated its understanding of the receiving environment for both the Project as a whole and for the area between the mine and Steensby, in detail, including both technical and IQ data collection.	This information request fails to identify that the Application supplements impact assessments and predictions developed through the 2012 FEIS and the Early Revenue Phase (ERP) FEIS Addendum with technical monitoring results and available IQ and Inuit Knowledge current to 2023. It is important to note that the 6 Mpta operation through the Northern Transportation Corridor has been approved by the NIRB on four separate occasions to date and in each case there was no trigger within the proposals that triggered a modification or amendment to the Type A Water License. Further, the SOP2 does not propose any additional activities from those that have been carried out since 2018 and strictly looks to extend the duration of the 6 mpta operation. Baffinland has considered all relevant information available to it in the Application, including in Appendix J (High-level summary of Inuit Knowledge). Baffinland has been conducting field work in the freshwater environment around Steensby Component infrastructure continuously since 2021 to support activity specific permits, including Fisheries Act Authorizations. No data collected to date has indicated the conditions in the receiving environment have meaningfully changed in the area since field studies were carried out in relation to the 2012 FEIS, however, this will be the subject of additional analysis and engagement with Inuit as part of the development of expanded freshwater related monitoring programs prior to commencement of construction and operations. The Type A Water License is already written to guide the establishment of water and waste related monitoring programs and mitigation measures as required under NWB approved management plans. Baffinland notes that NWB relies on public review to inform their approval of management plans through the regular annual monitoring and regulatory reporting cycle.	N/A

ID	Document Reference	Comment	Baffinland Response	Attachment
QIA-22	Appendix A – Application for Water Licence Renewal.	**Reliance on older information** QIA is specifically concerned about the lack of updated information regarding trend-over- time conditions from the Mine Site south to Steensby. We cannot know that there have been no changes to conditions in this area given Baffinland has said it has not been monitoring. In the Application, the Proponent indicates it does not have updated monitoring in this area. This is highly problematic given the time interval between approval and the currently planned activation of the construction phase for Steensby. **Recommendation:** Baffinland must provide updated detailed trend-over-time information for the full area where impacts resulting from the construction and operation of the Steensby components of the Project may be expected. Scope, methods, and results of this trend- over-time study must be verified with QIA, and it needs to include a substantive Inuit Qaujimajatuqangit component.	See Baffinland's response to QIA-21.	N/A
QIA-23	Appendix I – Baffinland's Response to QIA's Comments on Draft Application.	**Environmental management plans** In comments 7-1 and 7-2 of Appendix I, Baffinland states that their management plans were developed through the use of their own IQ framework but provides no information describing precisely how IQ was used in the development of these plans. No information appears in the management plans themselves or summaries provided by Baffinland (Appendix L). In the NWB Water Licence Application Form Information Requirements document, Baffinland refers to several sections from its original 2012 water licence application, which did not incorporate adequate Inuit Qaujimajatuqangit. In the management and response plans appended to this current application, Baffinland mentions Inuit values and rights only in passing, in their policies sections. Inuit values and rights are not mentioned in the guiding principles sections, and certainly do not appear to have been used as guiding principles in the development of the plans. Aside from procedures for notifying QIA of an emergency, no specific Inuit values, perspectives, measures, waterbodies of value, or collaborative practices are mentioned in the body of the actual management and response plans. It is essential to ensure Inuit values are meaningfully considered in the development of all water-related response and management plans. This ensures that management and response plans are accountable to Inuit communities and address water-related concerns from an Inuit perspective. Inuit values should inform management priorities, activities, and responses. The Cover Letter states that Environmental Management Plans are provided for reference only, and not for approval as part of the licence renewal process". However, Section 19 of this water licence renewal application requires "a description of the measures incorporated into the project design to mitigate effects of the project on the quality, quantity, or flow of waters flowing through IOL." Adequate and up-to-date management plans are required as part of this licence renewal application and are therefore fully subject to comment from QIA in both the NWB and NIRB regulatory processes. Management plans must adequately address QIA concerns about water, both those that are outstanding from previous approval processes (where QIA concerns about impacts to Inuit water use and about the lack of IQ and Inuit input in their design were not adequately addressed) and those resulting from impacts and developments during the past 10 years of Project operation. QIA requests the NWB grant adequate time and appropriately rigorous process steps to consider the implications of these management plans for this water licence renewal application. QIA requires commitment from Baffinland to directly involve Inuit in adaptive	See Baffinland's response to QIA-17 and QIA-18.	N/A

ID	Document Reference	Comment	Baffinland Response	Attachment
		management planning and design in which Inuit-led water monitoring results and Inuit responses inform management decisions and practices. **Recommendation:** Baffinland must provide detailed information about how IQ was used in the development of environmental management plans. Baffinland must also show how these plans were reviewed and approved by QIA and Inuit communities.		
ECCC-1	Supplementary Information Guideline Form – Appendix B of Application and Supporting Information to Renew Type A Water Licence 2AM-MRY1325 (Knight Piésold Consulting; June 26, 2024) o Response to No. 1, Water Use Baffinland's Response to QIA's Comments on Draft Application Form – Appendix I of Application and Supporting Information to Renew Type A Water Licence 2AMMRY1325 (Knight Piésold Consulting; June 26, 2024) o Response to IR 1-1	**Additional management plans** Two plans mentioned in the application were not found in the application materials: the Long-Term Mine Site Water Management Plan (Supplementary Information Guideline Form) and the Snow Management Plan (Baffinland's Response to QIA's Comments). ECCC notes that these plans are not currently part of the water licence, nor are they included in the water licence application. However, their titles indicate that they address water management on site, would be relevant to the water licence, and should be reviewed with this application in order to understand how Project impacts to water are mitigated. It is not clear if the Proponent intends for these plans to form part of the licence, or what justifications they might have for not including them. **Recommendation:** ECCC requests the Proponent: • provide the Long-Term Mine Site Water Management and Snow Management Plans for review; and • clarify if these plans should form part of the water licence requirements, or justify why they should not.	The Long-Term Mine Site Water Management Plan was developed and approved by the NWB in 2021. Despite its title, it is a planning document, not a management plan. It also represents a snapshot in time. As components of this plan are constructed they are added to the appropriate management plan (ie. Fresh Water Supply, Sewage and Wastewater Management Plan) under the Water Licence as applicable. The referenced Plan is included in Attachment 5. The Snow Management Plan (BIM-5200-PLA-0006, Rev. 7) is available on the NIRB Registry under the Sustaining Operations Proposal, registry No. 349818. This plan is not included in the Water Licence and therefore was not included in this renewal.	5
ECCC-2	Surface Water, Aquatic Ecosystem Management Plan BAF-PH1-830-P16-0026 – Appendix L3 of Application and Supporting Information to Renew Type A Water Licence 2AM-MRY1325 (Baffinland; March 31, 2021) o Section 9.4.2.3: Tote Road Monitoring Program (TRMP)	**Tote Road Monitoring Program** The Tote Road Monitoring Program (TRMP) is covered in a section of the Surface Water, Aquatic Ecosystem Management Plan. However, it is not clear if it is also a stand-alone document. The section includes the statement "*For additional details on the TRMP's sampling frequency, monitored parameters and response action frameworks and action levels refer to the Project's Roads Management Plan (BAF-PH1-830-P16-0023).*" Unfortunately, the Roads Management Plan was not provided for review. The TRMP is described as "*developed to monitor the water quality of surface water flows at select water crossing (culverts, bridges) along the Tote Road*". The TRMP appears relevant to the water licence application. **Recommendation:** ECCC requests the Proponent clarify where the Tote Road Monitoring Program is described in its entirety, and provide it for review.	The Roads Management Plan (BAF-PH1-830-P16-0023, Rev. 7) has been submitted to the NIRB as a part of the Annual Reporting process. It is available on the NIRB Registry under the Production Increase Proposal, registry number 330299. This plan is not included in the Water Licence and therefore was not included in this renewal. Further information on the Tote Road Monitoring Program (TRMP) can be found in Appendix D of the Roads Management Plan.	N/A
ECCC-3	· Application and Supporting Information to Renew Type A Water Licence 2AMMRY1325 (Knight Piésold Ltd.; June 26, 2024) o Section 5.3: Dust suppression water sources · Canadian Water Quality Guidelines for the Protection of Aquatic Life, Total Particulate Matter (Canadian Council of Ministers of the Environment; 2002)	**Criteria for project related total suspended solid impacts along the Tote Road** A project related change to total suspended solids (TSS) in watercourses along the Tote Road is defined in Section 5.3 of the application as double the Canadian Council of Ministers of the Environment (CCME) guideline for protection of aquatic life. For background concentrations below 250 mg/L, an increase greater than 50 mg/L in TSS is considered a project related impact, and for background TSS concentrations above 250 mg/L, an increase in concentration more than 20% of background is considered a project related impact. It is not clear how these criteria were developed. The suspended sediments CCME guidelines for protection of aquatic life during high flow are: *"Maximum increase of 25 mg/L from background levels at any time when background levels are between 25 and 250 mg/L.*	The "50 mg/L increase in TSS in the downstream sample when TSS in the upstream sample are less than 250 mg/L" as a Project related impact threshold stems from the fact that TSS concentrations during natural high turbidity events (e.g., freshet, or significant storm events) can result in TSS concentrations at upstream areas that are well above 250 mg/L, and therefore these creek/river systems naturally show, and are accustomed to, high TSS concentrations such that a <50 mg/L increase in TSS at other times of the year (when TSS is naturally lower than 250 mg/L) is unlikely to negatively affect biota of these creek/river systems. This information is detailed in the Roads Management Plan and is not part of the Water Licence.	N/A

ID	Document Reference	Comment	Baffinland Response	Attachment
		Should not increase more than 10% of background levels when background is >250 mg/L.” TSS may negatively impact fish both directly and indirectly. **Recommendation:** ECCC requests that the Proponent explain how the criteria for project related changes to TSS in watercourses along the Tote Road were developed, identify where they were discussed in the application, and specify if the criteria have previously been approved.		
DFO-1	N/A	DFO-FFHPP requests that Management Plans, including Surface Water, Aquatic Ecosystem Management Plan and a Road Management Plans be updated to include clear provisions for fish movement through watercourse crossing structures. Specifically it should include measures to protect fish and fish habitat to preserve fish passage and to protect downstream fish habitat from impacts. At a minimum, supporting information should include: • locations where road infrastructure interacts with waterbodies and watercourses including seasonally wet drainages; • type of crossing proposed (bridges and culverts); • fish species present, and life stage; and • whether there are fish bearing waterbodies downstream and/or upstream of the crossing and known important habitat. The seasonal channels between fish bearing waterbodies should be considered fish habitat.	Baffinland will update the Surface Water, Aquatic Ecosystem Management Plan to include the following information in the next update scheduled for Q1 2025; • locations where road infrastructure interacts with waterbodies and watercourses including seasonally wet drainages; • type of crossing proposed (bridges and culverts); • fish species present, and life stage; and • whether there are fish bearing waterbodies downstream and/or upstream of the crossing and known important habitat. Baffinland notes that this update and NWB management plan approval process will be handled outside of the Water Licence renewal process.	N/A

Baffinland

Attachment 1. Status of Compliance for 2AM-MRY1325 Type A Water Licence Terms and Conditions

360 Oakville Place Drive, Suite 300 | Oakville, ON, L6H 6K8 | Main: 416.364.8820 | Fax: 416.364.0193 | www.baffinland.com

Attachment 2. Type A Water License (2AM-MRY1325) Renewal Application Water Quality Scatter Plots

Attachment 3. BIM-5200-PLA-0022 Fresh Water Supply, Sewage, and Wastewater Management Plan

Attachment 4. Freshwater Environment Engagement Comments 2014-2024

Attachment 5. Mine Site Water Management Plan