30 June 2021

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RE: Modification No. 13 – Mine Site Water Management Plan
Mary River Project, Water Licence 2AM-MRY1325

1 – INTRODUCTION

Baffinland Iron Mines Corporation (Baffinland) is pleased to provide this submission to the Nunavut Water Board (NWB) to expand its water management facilities at the Mary River Project (the Project) Mine Site, in accordance with Part G of Type 'A' Water Licence 2AM-MRY1325 - Amendment No. 1 (Type 'A' Water Licence; Nunavut Water Board, 2015).

Baffinland recently developed a Water Management Plan (WMP) for the Mine Site (Knight Piésold, 2021). The WMP proposes various measures and facilities to address erosion and sedimentation effects within the Mine Site. Additional detail is provided in Section 2, and the WMP is presented as Attachment 2.

Consistent with guidance from the Nunavut Impact Review Board (NIRB), Baffinland has completed a self-assessment to demonstrate that the change proposed does not constitute a significant modification to the Project as approved under Project Certificate No. 005 (as Amended), and that the potential ecosystemic and socio-economic effects associated with the modification are not significant.

Due to the current progress of Baffinland's planning and design work relative to the rapidly approaching construction season, Baffinland is seeking written approval from the NWB under Part G, Item 2 of the Licence to be permitted to start construction of the modifications inside the 60-day notification required under Part G, Item 1. In the absence of written approval from the NWB, Baffinland will not proceed with the works before the 60-days. Baffinland is requesting to start construction on or before August 1, 2021, pending NWB approval in writing.

The Mine Site Water Management Plan is presented as a phased approach to manage surface water and sedimentation impacts identified through regular monitoring of the Mary River Project. This modification encompasses all of the activities proposed, however detailed engineering of these facilities is currently ongoing. This Modification Request contains the issued for construction (IFC) drawings for the first and largest structure to be built, the KM105 Sedimentation Pond (Attachment 3). In accordance with the Type 'A' Water Licence, detailed design and Issued for Construction drawings will be submitted to the board prior to construction. Further investigation and detailed engineering is required for the preparation of the subsequent IFC submissions to the NWB, however Baffinland is committed to completing these designs and implementing the WMP to it's full extent in a timely manner. Baffinland wishes to emphasize that the implementation of this Plan is a direct result of adaptive management and regulator feedback to date, and due to the scale of the Plan the detailed engineering will require significant time and effort.

2 – MODIFICATION

The proposed modifications are described below, in accordance with Part G, Item 3 of the Type 'A' Water Licence.

2.1 DESCRIPTION OF FACILITIES AND/OR WORKS TO BE CONSTRUCTED

The proposed works include construction of the following water management measures:

- Sedimentation ponds
- Conveyance/diversion ditches and berms

The specific features proposed are summarized in Table 1 and the locations are shown on Figure 1 (Attachment 1). The Water Management Plan (Attachment 2) provides a detailed description of the proposed works, as well as typical sections and details.

Table 1 Proposed Water Management Facilities

Project Component	Consideration	Proposed Measure/Action
Mine Haul Road	Current water management structures (ditches, culverts, check dams and sediment ponds) are insufficient in managing runoff along the road. The road is not sloped towards the inside ditches (hill side) in some areas and notches are cut into the safety berm (at certain times of the year). Erosion of the natural slopes downstream of the MHR and its culverts is occurring.	Plug or remove culverts that pass flows under the ground to the downstream side of the MHR. Re-slope the MHR so drainage is to an upgraded inside ditch equipped with energy dissipation structures (rock check dams, gabions, etc.). The upgraded ditch will convey water to the new sedimentation pond at KM105 (Attachment 3). It is noted that due to topography, ground conditions, and the CDA dam classification, the KM105 Pond as designed does not meet the new proposed design criteria (Attachment 2). As a result, additional infrastructure in the form of a pond at KM104 and/or surface water diversion berms will be required to meet the design criteria. In the short term, the design of the KM105 is considered appropriate, however Baffinland is completing detailed engineering on the additional structures for future implementation in 2022/23.
Explosive Magazine Area	Check dams and sedimentation ponds are undersized for freshet and heavy rain events.	The removal/plugging of culverts and re-sloping of the MHR will reduce or eliminate flows on the downstream side of the MHR, including the explosives magazine area. Once these changes have been realized, further study can determine how to stabilize the ground and reduce sedimentation. This may include do-nothing, remediation of exposed slopes, or construction of a new sedimentation pond.

Project Component	Consideration	Proposed Measure/Action
Mine Site Complex, Mobile Maintenance Pad, etc.	Runoff management from site infrastructure area needs to be improved for effective operation of the area to be maintained.	Install sedimentation pond; install ditches/berms as required to route runoff from disturbed areas to the pond; and divert runoff from undisturbed areas away from the pond as much as possible. Install rock berms along edges of disturbed areas or rock check dams in non-fish bearing watercourses where runoff cannot be directed to a sedimentation pond.
Quarry QMR2	Sediment-laden runoff from Quarry QMR2 and its access road is entering the natural pond west of the quarry access road.	Construct a small sedimentation pond in the quarry floor (to be formed by blasting).
Water Jetty Area and Camp Lake Tributaries	Sediment-laden runoff in Camp Lake drainage behind (south of) the Weatherhaven Camp. Primary contributors are the snow melt, laydown construction material and dust generated by the airstrip and deposited in the area.	Install rock berms/sediment traps upstream of drainage. Increase capacity of existing rock check dams and sediment traps. Place sacrificial gravel cover around exploration camp and the periphery of the airstrip.

2.2 PROPOSED LOCATION OF THE STRUCTURES

The proposed work will occur within the existing PDA at the Mine Site. Key water management features are shown on Figure 1 (Attachment 1), and more detail is presented on Figures 4.1, 5.1 and 6.1 in the WMP (Attachment 2).

2.3 IDENTIFICATION OF ANY POTENTIAL IMPACTS TO THE RECEIVING ENVIRONMENT

The proposed water management facilities are consistent with the Approved Project and the potential impacts of the activity have been assessed in the FEIS. Sedimentation and erosion mitigation measures, as required, shall be in place before commencing construction of the works.

Once constructed, the water management facilities will improve water management at the Mine Site including regulatory compliance.

2.4 MONITORING

Periodic environmental inspections will be conducted by Baffinland's Environmental personnel during construction in conjunction with the Contractor's Health, Safety and Environment Lead. Inspections will check that Contractors are complying with the conditions of the Type 'A' Water Licence (in particular Part D, Conditions Applying to Construction and Operation) and Baffinland's management plans and procedures. Inspections will be documented by taking photos and using Baffinland's environmental inspection forms. This includes inspections and photos before and after the work, and during the work to document any deficiencies. Documented deficiencies will be forwarded to the responsible Contractor for corrective action.

Baffinland will prepare a Construction Summary Report for each water management facility/area in accordance with Part D, Item 17 of the Type 'A' Water Licence. The Construction Summary Report will include the information specified in Schedule D of the Type 'A' Water Licence.

During construction, verification sampling for total suspended solids (TSS) or turbidity will occur downstream of the works.

During operation, effluent discharged from the ponds will be monitored according to the new Surveillance Network Program (SNP) monitoring stations identified in Table 2 and on Figure 1 (Attachment 1). The monitoring parameters outlined in Table 2 are consistent with the existing structures and approach to monitoring for the Surveillance Network Program, and the parameters as outlined in the Licence.

Table 2 Proposed Surveillance Network Program Monitoring Stations

Station	Description	Project Phases	Monitoring Parameters	Frequency	Applicable Discharge Limits
MS-10	SDLT-1 Pond Ore Stockpile Stormwater	Operation	Groups 1 and 7	Monthly during summer	Table 10
			Group 3	Annually	
MS-11	KM105 Pond Stormwater	Operation	Groups 1 and 8	Monthly during summer	Table 11
MS-12	Weatherhaven Camp Stormwater	Operation	Groups 1 and 8	Monthly during summer	Table 11
MS-13	Explosives Magazine Pond (if constructed)	Operations	Groups 1 and 8	Monthly during summer	Table 11

The SDLT-1 Pond (MS-10) will collect runoff from the existing crusher pad and future (proposed) rail loadout area associated with the Phase 2 Proposal. As such, monitoring will be undertaken in accordance with Part F, Item 24 of the Licence, and effluent quality will be compared to the discharge limits in Table 10 of the Licence.

The KM105 Pond (MS-11), Weatherhaven Camp Pond (MS-12) and Explosives Magazine Pond (MS-13) meet the definition of contact water from site drainage and surface water management systems under Part F, Item 26 of the Licence, and effluent quality will be compared to the discharge limits in Table 11 of the Licence.

Existing management plans for the Project are sufficient to address the ongoing monitoring and management of the water management infrastructure. New monitoring stations will be added where warranted to relevant management/monitoring plans, including the Fresh Water Supply, Sewage and Wastewater Management Plan (Baffinland, 2021a), and the Surface Water and Aquatic Ecosystems Management Plan (Baffinland, 2021b).

2.5 SCHEDULE FOR CONSTRUCTION

Baffinland is taking a staged approach to construction, due the scale of the infrastructure outlined in the WMP. The first structure to be constructed will be the KM105 Pond during the summer of 2021. Other priority infrastructure for 2021 include the Camp Lake Jetty. Work will continue in 2022, including the additional capacity required at the KM105 Pond, the construction of the SDLT-1 Pond, and other diversions and infrastructure noted in the WMP.

Design briefs with IFC drawings will be submitted to the NWB at least 60 days prior to construction, as required under Part D, Item 2 of the licence. However, as part of this modification request, Baffinland is requesting that the NWB reduce the 60 day requirement for IFC drawings to 30 days, such that construction of the KM105 can proceed in early August 2020. Timing of earthworks and liner installation is critical to ensure that this structure is in place prior to freshet 2022. The proposed schedule for construction for the KM105 Pond is as follows;

- Earthworks Construction – Beginning Aug. 1, 2021 (75 days)
- Geotextile & Liner Installation – Beginning Aug. 23 (30 days)
- Liner Protection & Spillway Construction – Beginning Sept. 6 (40 days)

Design of other major water management features will continue through 2021, with construction occurring during the summer construction season in 2022.

Baffinland will provide as-built documentation in accordance with the Type 'A' Water Licence and the Commercial Lease, to be submitted 90 days following completion of construction of each facility.

2.6 DRAWINGS OF ENGINEERED STRUCTURES

General arrangements and typical sections and details are presented in the WMP (Attachment 2). As part of the phased construction approach for the WMP, IFC Drawings will be submitted to the NWB as they become available, and at least 60 days prior to construction in accordance with Part D, Item 2 of the Licence.

In support of this modification, the initial set of IFC drawings and associated design brief for the KM105 Pond are provided as Attachment 3. Specifically, the following IFCs are attached for reference:

- 400 - KM105 SEDIMENTATION POND - DRAWING LIST
- 410 - KM105 SEDIMENTATION POND - FILL MATERIAL SPECIFICATIONS
- 411 - KM105 SEDIMENTATION POND - GEOSYNTHETICS SPECIFICATIONS
- 420 - KM105 SEDIMENTATION POND - GENERAL ARRANGEMENT
- 421 - KM105 SEDIMENTATION POND - NORTHWEST EMBANKMENT - PLAN AND SETTING OUT DETAILS
- 422 - KM105 SEDIMENTATION POND - NORTHWEST EMBANKMENT - SECTIONS
- 425 - KM105 SEDIMENTATION POND - SOUTH EMBANKMENT - PLAN AND SETTING OUT DETAILS
- 426 - KM105 SEDIMENTATION POND - SOUTH EMBANKMENT - SECTIONS
- 427 - KM105 SEDIMENTATION POND - TYPICAL SECTIONS AND DETAILS
- 435 - KM105 SEDIMENTATION POND - EMERGENCY SPILLWAY - PLAN, SECTIONS AND DETAILS
- 440 - KM105 SEDIMENTATION POND - INSTRUMENTATION - PLAN
- 441 - KM105 SEDIMENTATION POND - INSTRUMENTATION - SECTIONS - SHEET 1 OF 2
- 442 - KM105 SEDIMENTATION POND - INSTRUMENTATION - SECTIONS - SHEET 2 OF 2
- 443 - KM105 SEDIMENTATION POND - INSTRUMENTATION - DETAILS

2.7 PROPOSED SEDIMENT AND EROSION CONTROL MEASURES

Baffinland will employ a combination of sediment and erosion control measures (check dams, rip-rap, silt fences, etc.), as outlined in the Project's Environmental Protection Plan (EPP; Baffinland, 2016a) and Surface Water and Aquatic Ecosystems Management Plan (Baffinland, 2021a) to address and manage sedimentation concerns during

construction. Existing management plans for the Project are sufficient to address the ongoing monitoring and management of the proposed water management facilities.

3 – SELF-ASSESSMENT OF PROPOSED MODIFICATIONS

Baffinland has undertaken a self-assessment of the proposed modifications in accordance with the *Process for Seeking Approval for Modifications to Previously-Approved Projects* (NIRB 2018). This self-assessment consists of four main components:

- Comparison of the modification with the scope of the Approved Project;
- An assessment of significance applying the factors set out in Section 90 of the *Nunavut Project Planning and Assessment Act* (NuPPAA);
- Identification of other new or modified permits, licences or approvals necessary to complete the proposed modification; and
- Determination as to whether or not reconsideration of the existing Project Certificate is appropriate, considering Nunavut Agreement Section 12.8.2 and NuPPAA Section 112.

3.1 COMPARISON OF MODIFICATIONS TO APPROVED PROJECT

Baffinland undertook a comparison of the proposed modifications with the scope of the Approved Project, as described in the Final Environmental Impact Statement (FEIS) and the FEIS Addendum (Baffinland 2012 and 2013) for the Early Revenue Phase (ERP) of the Project. In completing this review, Baffinland considered the following question:

Was the modification activity assessed previously, or does it represent a reasonably expected modification or optimization of that which was assessed in the FEIS or FEIS Addendum?

The new water management structures proposed in the WMP are additional to, but are consistent with, water management facilities identified in the FEIS (Volume 3, Figure 3-2.3). These new structures are also consistent with the following elements of the scope of the Water Licence:

- *Site drainage and surface water management for the Milne Port, Mine Site*
- *Ore Stockpile runoff management at the Mine Site & the Steensby Port Site*
- *Watercourse crossings including pipelines, jetties, bridges; roads associated with channels; and bank alterations, culverts, spurs, erosion control, and artificial accretion;*
- *Flood control, diversions, alteration of flow or storage by means of dykes or dams*

The proposed water management improvements are described further in Section 2 and in Attachment 2. A self-assessment of the proposed modifications is presented in Section 2.

3.2 SIGNIFICANCE ASSESSMENT

A screening level assessment of potential changes to the assessment of the Approved Project effects was completed for each of the valued ecosystem components (VECs) and valued socio-economic components (VSECs) identified in the FEIS. This assessment is presented in Table 3.

The modification as a whole was evaluated against the significance criteria presented in Section 90 of the *Nunavut Project Planning and Assessment Act* (*NuPPAA*):

(a) The size of the geographic area, including the size of wildlife habitats, likely to be affected by the impacts

(b) The ecosystemic sensitivity of that area

(c) The historical, cultural and archaeological significance of that area

(d) The size of the human and animal populations likely to be affected by the impacts

(e) The nature, magnitude and complexity of the impacts

(f) The probability of the impacts occurring

(g) The frequency and duration of the impacts

(h) The reversibility or irreversibility of the impacts

An assessment of the proposed modifications in relation to Section 90 of the *NuPPAA* is presented in Table 4.

The activities are confined within the boundaries of Baffinland's Commercial Lease and therefore do not represent a change to the previously assessed geographic extent of the Project. These activities will not be in an area of particular ecosystem sensitivity and the areas of disturbance do not impact areas of historical, cultural or archeological significance. Humans and wildlife are not likely to be adversely affected. The activities will not significantly change air emissions, impede water flow, impact aquatic life, hinder wildlife access or increase noise levels, and the activities will not directly interact with fish or fish habitat. Construction activities are short-term and most of the effects are reversible as reclamation will be carried out once the activity is complete. There will be a net improvement to the local aquatic environment once the water management measures have been constructed. Additional cumulative effects are not expected given that there are no new residual effects predicted from the proposed modifications.

Table 3 Comparison of Effects of the Modification to Approved Project

Theme	FEIS VEC	FEIS Key Indicator	Change in Effect and Significance	Description of Change in Potential Effects	Additional Mitigation Measures
Atmospheric Environment	Climate change	Greenhouse gases (GHGs)	Change; not significant	One-time minor increase in annual GHG emissions due to unforeseen construction activities of that is immeasurable in the context of the Life-of-Mine (LOM) GHG estimate of the Approved Project.	No additional mitigation required, implement existing Climate Change Strategy
		Climate change	Change; not significant	Immeasurable minor increase.	No additional mitigation required, implement existing Climate Change Strategy
	Air quality	Particulate matter, SO_2, NO_X	Change; not significant	Site characteristics and effects pathways are unchanged. Short-term localized increases in particulate matter and gaseous emissions associated with additional earthworks, entirely mitigated once proposed modifications are complete.	No additional mitigation required; implement existing Air Quality and Noise Abatement Management Plan (Baffinland, 2020).
	Noise and vibration	Atmospheric noise levels, marine noise levels, vibration	Change; not significant	Short-term localized noise increase associated with additional earthworks, entirely mitigated once proposed modifications are complete.	No additional mitigation required; implement existing Air Quality and Noise Abatement Management Plan (Baffinland, 2020).
Terrestrial Environment	Landforms, soil and permafrost	Sensitive landforms	No change	There are no sensitive landforms identified within the existing PDA where the proposed modifications will be undertaken.	No additional mitigation required; implement existing EPP (Baffinland, 2016a).
	Vegetation	Plant abundance and diversity Plants important to Inuit Plant health	No change	Assessment of the Approved Project assumed complete loss of vegetation within the PDAs. No change to vegetation will occur relative to the Approved Project as the proposed modifications will occur within the existing Mine Site PDA.	No additional mitigation required; implement existing EPP (Baffinland, 2016a).
	Terrestrial wildlife and habitat	Caribou	No change	Assessment of the Approved Project assumed complete loss of terrestrial habitat within the PDAs. No change to terrestrial wildlife habitat will occur relative to the Approved Project as proposed modifications will occur within the existing Mine Site PDA.	No additional mitigation required; implement existing Terrestrial Environment Mitigation and Monitoring Plan (TEMMP; Baffinland, 2016b).
	Migratory birds and habitat	Peregrine Falcon, Snow Goose, Eider, Red-throated Loon, shorebirds, songbirds, species at risk	No change	Assessment of the Approved Project assumed complete loss of habitat within the PDAs. The footprint of the proposed modifications will be surveyed for bird nests prior to work if being undertaken during the nesting season, in accordance with the EPP (Baffinland, 2016a) and TEMMP (Baffinland, 2016b).	No additional mitigation required; implement existing EPP (Baffinland, 2016a) and TEMMP (Baffinland, 2016b).

Theme	FEIS VEC	FEIS Key Indicator	Change in Effect and Significance	Description of Change in Potential Effects	Additional Mitigation Measures
Freshwater Aquatic Environment	Surface water, including freshwater quality and quantity	Water quantity Water and sediment quality	Change; not significant	In the short term, additional earthworks represent a minor potential increase in sedimentation effects to local watercourses. Additional catchment will be redirected to Sheardown Tributary 1, offsetting previously predicted effects and representing an improvement compared to the effects assessed in the FEIS. A hydrology assessment was completed and confirmed that the proposed works will not result in unacceptable effects that exceed those assessed in the FEIS (Attachment 4). Water quality in local watercourses will improve once the ponds and other water management measures have been implemented.	No additional mitigation required; temporary erosion and sediment control measures will be installed consistent with applicable management plans: Surface Water and Aquatic Ecosystems Management Plan (Baffinland, 2021a), Fresh Water, Sewage and Wastewater Management Plan (Baffinland, 2021b), and EPP (Baffinland, 2016a).
	Freshwater fish, fish habitat and other aquatic organisms	Arctic char	Change; not significant	Most of the proposed modifications are not situated within fish habitat, except for the SDLT-1 Pond, which will cover about 134 m of low quality fish habitat upstream of the existing culvert crossing SDLT-1. Baffinland will seek feedback from Fisheries and Oceans Canada (DFO) regarding the need for a *Fisheries Act* Authorization or Letter of Advice to address fish habitat impact. The potential for changes to water quality affecting fish could result from potential sedimentation during earthworks. Once the proposed modifications have been implemented, improved water quality and flows will be beneficial to downstream fish habitat.	No additional mitigation required; implement existing Surface Water and Aquatic Ecosystems Management Plan (Baffinland, 2021a), Fresh Water, Sewage and Wastewater Management Plan (Baffinland, 2021b), and EPP (Baffinland, 2016a).
Marine Environment	Sea ice	Area of shore fast ice in Steensby Inlet	No change	Not applicable to the proposed modifications.	No additional mitigation required.
	Water and sediment quality	Water and sediment quality parameters with established guidelines	No change	Not applicable to the proposed modifications.	No additional mitigation required.
Human Environment	Land and resources use	Wildlife harvesting by Inuit Travel and camps	No change	The scale of the proposed modifications is minor and entirely confined to the existing Mine Site PDA and Commercial Lease boundaries. Changes to how Baffinland manages visitors and hunters will not be necessary.	No additional mitigation required.
	Cultural resources	Archaeological sites	No change	Effects to archaeology are not expected, as proposed modifications are located in an area previously surveyed (and mitigated, if necessary).	No additional mitigation required; implement existing EPP (Baffinland, 2016a) and Cultural Heritage Protection Plan (Baffinland, 2016c).

Theme	FEIS VEC	FEIS Key Indicator	Change in Effect and Significance	Description of Change in Potential Effects	Additional Mitigation Measures
	Other Valued Socio-economic Components (VSECs): • Population demographics • Education and training • Human health and wellbeing • Community infrastructure and public services • Governance and leadership • Livelihood and employment • Economic development and self-reliance • Contracting and business opportunities • Benefits, taxes and royalties		No change	Any additional employment and contracting will be undertaken in accordance with the provisions of the Inuit Impact and Benefit Agreement (IIBA) with the Qikiqtani Inuit Association (QIA).	No additional mitigation required.

Table 4 Significant Modification Self-Assessment Using *NuPPAA* S.90 Significance Criteria

NuPPAA Section 90 Significance Criteria	Evaluation of Modification
(a) the size of the geographic area, including the size of wildlife habitats, likely to be affected by the impacts	Proposed modifications are located within the existing Project boundaries; the geographic extent of the Project remains unchanged.
(b) the ecosystemic sensitivity of that area	Proposed modifications are confined to the existing Project boundaries; no new environmental sensitivities have been identified.
(c) the historical, cultural and archaeological significance of that area	Proposed modifications are confined to the existing Project boundaries; no new features of historical, cultural or archaeological significance will be affected.
(d) the size of the human and the animal populations likely to be affected by the impacts	No change.
(e) the nature, magnitude and complexity of the impacts	Proposed modifications have effects that are consistent with the Approved Project.
(f) the probability of the impacts occurring	Proposed modifications have effects that are consistent with the Approved Project.
(g) the frequency and duration of the impacts	Proposed modifications have effects that are similar in frequency and duration to effects assessed for the Approved Project.
(h) the reversibility or irreversibility of the impacts	The proposed modifications have effects that range from fully reversible to irreversible, consistent with the Approved Project.
(i) the cumulative impacts that could result from the impacts of the project combined with those of any other project that has been carried out, is being carried out or is likely to be carried out	Marginal potential increases in the effects to air quality, noise, water quality and consequently fish and fish habitat are confined to the local study areas, and do not overlap with other past, present or reasonably foreseeable activities that would constitute new cumulative effects.
(j) any other factor that the Board considers relevant to the assessment of the significance of impacts	This criterion is not applicable to a proponent self-assessment.

3.3 OTHER REQUIRED APPROVALS

In addition to requiring NWB approval as a modification under the Type 'A' Water Licence, the proposed modifications require approval from the QIA as landowner, as part of the Annual Work Plan approval process. Implementation of the WMP was identified in the 2021 Work Plan Table 3.1, under items 2020-6 and 2020-7. Additionally, adequate reclamation security is required for the initial phase of the proposed modification. Currently, QIA holds approximately $41,000 in direct costs (excluding indirect costs and contingency) for the development of the Mine Haul Road sedimentation pond. At the current unit rate for grade and re-contour of $1.49/m^2, there is security allocated for approximately 28,000 m^2 of new ground disturbance. Reconciliation of additional footprint will be completed using satellite imagery in the 2022 Work Plan disturbed areas analysis. In addition, future phases of the WMP not initiated in 2021 will be captured in the 2022 Work Plan. Some infrastructure outlined in the WMP is proposed for existing disturbed lands, and will be identified in future Work Plans and reconciliation of disturbed footprint using satellite imagery.

Since the proposed SDLT-1 pond is located on marginal fish habitat, it will be necessary to engage Fisheries and Oceans Canada (DFO) as to whether or not an approval will be required under the *Fisheries Act*.

3.4 RECONSIDERATION OF THE PROJECT CERTIFICATE

Baffinland reviewed Section 12.8.2 of the Nunavut Agreement and Section 112 of the *NuPPAA* and has determined that reconsideration of the existing Project Certificate is not appropriate.

Section 112 of *NuPPAA* states the following:

> ***112 (1)*** *The Board may, on its own initiative or at the request of the Designated Inuit Organization, the proponent or any interested person, reconsider the terms and conditions set out in a project certificate that it has issued if*
>
> *(a) the terms and conditions are not achieving their intended purpose or are having effects that are significantly different from those anticipated at the time the certificate was issued;*
>
> *(b) the circumstances relating to the project are significantly different from those anticipated at the time the certificate was issued; or*
>
> *(c) technological developments or new information provides a more efficient method of achieving the intended purpose of the terms and conditions.*

Section 12.8.2 of the *Nunavut Agreement* presents nearly identical wording as *NuPPAA* Section 112.

The proposed modifications are consistent with the scope of the Approved Project, and hence Baffinland has concluded that the terms and conditions of the Project Certificate are achieving their purpose (Clause a); and that the circumstances related to the Project and its effects remain unchanged from the Approved Project (Clause b). No technological developments or new information have been identified in relation to Clause c. The proposed modifications do not warrant changes to existing conditions or new conditions within the Project Certificate. As such, reconsideration of the Project Certificate is not appropriate.

3.5 SELF-ASSESSMENT CONCLUSION

Based on the self-assessment provided in Sections 3.1 through Section 3.4, Baffinland has concluded that:

- The proposed modifications are all activities that were previously assessed by Baffinland.
- The effects of the proposed modifications are not significant.
- No other permits, licences or approvals (or modifications of existing approvals) are required, beyond this modification, and approval from QIA with respect to the reclamation security requirements.
- Reconsideration of the terms and conditions in Project Certificate No. 005 is not required.

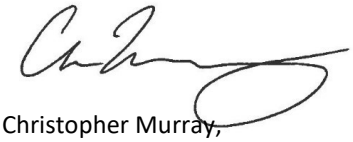
As noted in Section 1, Baffinland is seeking written approval from the NWB under Part G, Item 2 of the Licence to be permitted to start construction of the modifications inside the 60-day notification required under Part G, Item 1, to ensure that the proposed water management facilities can be constructed during the 2021 construction season. In the absence of written approval from the NWB, Baffinland will not proceed with the works before the 60-day period.

Baffinland will provide as-built documentation in accordance with the Type 'A' Water Licence and the Commercial Lease, to be submitted 90 days following completion of construction.

4 – CLOSURE

We trust that this information meets the requirements under Part G of Baffinland's Type 'A' Water Licence and look forward to the NWB's response. Please do not hesitate to contact the undersigned should you have any questions or comments.

Regards,



Christopher Murray,
Environmental & Regulatory Compliance Manager

Cc:
Karén Kharatyan (Nunavut Water Board)
Chris Spencer (Qikiqtani Inuit Association)
Bridget Campbell, Godwin Okonkwo (Crown-Indigenous Relations and Northern Affairs Canada)
Guillaume Daoust, Cory Barker (Nunavut Impact Review Board)
Megan-Lord Hoyle, Lou Kamermans, Timothy Ray Sewell, Shawn Stevens, Connor Devereaux, Kendra Button, Alison MacArthur, Allan Knowlton (Baffinland)

ATTACHMENTS

1 Figure 1 – Proposed Mine Site Water Management Facilities
2 Water Management Plan
3 KM105 Pond Design Brief and IFCs
4 Hydrology Assessment

REFERENCES:

Baffinland Iron Mines Corporation (Baffinland). 2012. *Mary River Project - Final Environmental Impact Statement*. February 2012.

Baffinland Iron Mines Corporation (Baffinland). 2013. *Mary River Project - Addendum to the Final Environmental Impact Statement for the Early Revenue Phase*. June 2013.

Baffinland Iron Mines Corporation (Baffinland), 2016a. *Environmental Protection Plan*. Doc. No. BAF-PH1-830-P16-0008, Rev. 1, August 30.

Baffinland Iron Mines Corporation (Baffinland), 2016b. *Terrestrial Environment Mitigation and Monitoring Plan*. Doc. No. BAF-PH1-830-P16-0027, Rev 1, March 14.

Baffinland Iron Mines Corporation (Baffinland), 2016c. *Cultural Heritage Protection Plan*. Doc. No. BAF-PH1-830-P16-0006, Rev. 3, March 7.

Baffinland Iron Mines Corporation (Baffinland), 2020. *Air Quality and Noise Abatement Management Plan*. Doc. No. BAF-PH1-830-P16-0002, Rev. 7, March 31.

Baffinland Iron Mines Corporation (Baffinland), 2021a. *Surface Water and Aquatic Ecosystems Management Plan*. Doc. No. BAF-PH1-830-P16-0026, Rev. 7, March 31.

Baffinland Iron Mines Corporation (Baffinland), 2021b. *Fresh Water Supply, Sewage and Wastewater Management* Plan. Doc. No. BAF-PH1-830-P16-0010, Rev. 8, March 31.

Knight Piésold Ltd. (KP), 2021a. *Mary River Project – Mine Site Interim Water Management Plan*. Ref. No. NB102-181/63-1, Rev. 0, April 9, 2021.

Knight Piésold Ltd. (KP), 2021b. *Mary River Project – Mine Site Water Management Plan*. Ref. No. NB102-181/63-1, Rev. 2, June 30, 2021.

Nunavut Impact Review Board (NIRB). 2018. *Process for Seeking Approval for Modifications to Previously-Approved Projects*. Memorandum dated February 14, 2018 issued to the Nunavut Wide Distribution List.

Nunavut Water Board (NWB). 2015. *Type 'A' Water Licence No. 2AM-MRY1325 – Amendment No. 1*. July 30.

Attachment 1

Figure 1 – Proposed Mine Site Water Management Facilities

Provided Under Separate Cover

Attachment 2

Water Management Plan

Provided Under Separate Cover

Attachment 3

KM105 Pond Design Brief and IFCs

Provided Under Separate Cover

Attachment 4

Hydrology Assessment

Provided Under Separate Cover