

June 8, 2020

Karen Costello
Executive Director
Nunavut Impact Review Board

Re: Minister's Response to NIRB's Reconsideration Report and Recommendations and Draft Project Certificate No. 005 for Baffinland Iron Mines Corporation's "Extension Request to the Production Increase Proposal" related to the Mary River Project

Dear Karen,

Baffinland Iron Mines Corporation (Baffinland) would like to thank the Nunavut Impact Review Board (NIRB or the Board) for its May 25, 2020 letter entitled "Minister's Response to NIRB's Reconsideration Report and Recommendations and Draft Project Certificate No. 005 for Baffinland Iron Mines Corporation's "Extension Request to the Production Increase Proposal" related to the Mary River Project and the opportunity to provide comments on the Draft Project Certificate No. 005, Amendment 3 (the Draft Project Certificate).

Baffinland notes the NIRB has indicated it will not be further modifying the wording of the revisions to the terms and conditions outlined by the Minister for the Draft Project Certificate for the Mary River Project (the Project). Subsequently, Baffinland's following comments relate to implementation considerations associated with the updated terms and conditions and additional requirements (not tied to a specific term and condition) where relevant.

Additional Requirements

In Section 3.1 of its Reconsideration Report and Recommendations for the Extension Request to the Production Increase Proposal, the Board requires Baffinland to submit additional reports and provide updates to select management plans to ensure they reflect the full scope of the Project as Proposed under the Production Increase Proposal.

1. Marine Shipping and Vessel Management Report

In accordance with the requirement as outlined by the Board, Baffinland will submit a Marine Shipping and Vessel Management Report to the NIRB prior to the commencement of the shipping season. Baffinland will include the following requested information:

- Anticipated number of ship transits along the approved shipping route;
- Identification of specific areas to be used for drifting and anchorage of vessels;
- Timeframes for holding the pre and post shipping season meetings with the community of Pond Inlet;

- A summary of shipping mitigations intended to minimize effects of the Project on marine mammals and harvesting activities; and
- A summary of community and regulator engagement related to results of the marine monitoring programs from previous years, including discussions held on findings of any non-native species (when relevant) and a summary of whether those species have been observed or documented in the area by other parties.

The Board has also asked that Baffinland obtain feedback from the community of Pond Inlet and the Marine Environment Working Group (MEWG) on the drifting and anchorage locations and summarize how this feedback is used to inform the selection of suitable areas. Baffinland notes that on January 13, 2020, a memo regarding the Northern Shipping Corridor Anchorage Locations was provided to the representatives of the North Baffin Hamlet and Hunter and Trapper Organizations (see Attachment 1 and 2).

This memo summarizes an options exercise that Baffinland undertook following consultation with the Mittimatalik Hunter and Trappers Organization (MHTO) on five alternative locations for anchoring along the Northern Shipping Corridor. The results of the options exercise demonstrate that the established anchorage locations near Ragged Island remain the most suitable area for the Project. Although Baffinland remains committed to ongoing engagement with the MHTO regarding how best to minimize interference with land use activities near the Ragged Island anchorage location, annual updates to this are anticipated to be procedural in nature (i.e. related to enhanced communication or mitigations regarding use of anchorages).

The Board also requested Baffinland provide a comparison of the results of its marine monitoring programs to the experiences of community members and hunters with respect to the marine environment and marine mammals during the previous shipping season. Baffinland can provide a summary of feedback received during continued engagement with the MHTO and other community members regarding the effects of Baffinland's shipping operations on land users and traditional harvesting activities, as well as a discussion of how hunter feedback continues to inform Baffinland's marine monitoring programs or mitigations. Baffinland also notes its ongoing commitment to provide the MHTO with \$200,000 annually for a wildlife monitoring program and a marine research vessel for the purpose of conducting community-based marine monitoring. As results from the community-based monitoring programs become available, Baffinland will seek to work with the MHTO to conduct a comparison of results, where appropriate. Baffinland requests the NIRB confirm this is the type of information that the Board is seeking.

2. Tote Road Monitoring Program Report

To address the Board's request, Baffinland will provide a standalone Tote Road Monitoring Program Report¹. The Report will include:

¹ Results of the Tote Road Monitoring Program will continue to be summarized to NIRB in the Annual Report under PC Condition No. 46 and in the Annual Report for Operations to the NWB/QIA.

- Data collected on Total Suspended Solids (TSS) in surface water at sampling locations outlined in the Tote Road Monitoring Program.
- An analysis of whether TSS in surface water bodies near the Tote Road have increased alongside additional use of the Tote Road associated with the Production Increase Proposal.
- As assessment of whether mitigations to manage dust dispersion and sedimentation impacts associated with use of the Tote Road are functioning as intended.

The results of the Tote Road Monitoring Program will inform any adaptive management measures, should they be required, with subsequent updates being made to the Roads Management Plan to capture additional mitigations as needed.

3. Updates to Management Plans

The NIRB requested Baffinland ensure all of its management plans are updated to reflect the scale and scope of the Extension Request to the Production Increase Proposal. Baffinland notes that where necessary, the management plans identified by the NIRB were already updated to reflect changes in scale and scope of the Project associated with the Production Increase Proposal when it was initially approved in 2018. Baffinland's Shipping and Marine Wildlife Management Plan is currently being updated by Baffinland to reflect operational mitigations that Baffinland has committed to since the time the Production Increase Proposal was originally approved. An updated version of this plan will be submitted to the NIRB prior to the start of the 2020 shipping season.

For clarity, Baffinland also wishes to advise the NIRB that there is no standalone Dust Management and Monitoring Plan for the Project, and rather this is a component of the Air Quality and Noise Abatement Management Plan. Similarly, a standalone Tote Road Monitoring and Management Plan for the Project does not exist, rather this is housed within the Roads Management Plan.

Terms and Conditions

Baffinland has reviewed the revisions to terms and conditions in the Draft Project Certificate and has captured its comments to the NIRB regarding the implementation of these terms and conditions as they are written in Table 1.

Table 1 – Baffinland Comments on Updated Terms and Conditions

Term and Condition	Updated Term and Condition in Draft Project Certificate	Baffinland Comment on Revision
179(a)	Until December 31, 2021, the total volume of ore shipped via Milne Inlet may exceed 4.2 million tonnes per year, but must not exceed 6.0 million tonnes in any calendar year. After December 31, 2021, the maximum total volume of ore shipped via Milne Inlet in a calendar year returns to 4.2 million tonnes per year, unless this condition has been further modified under section 112 of	Baffinland will continue to include in its Annual Report to the NIRB the total amount of ore shipped via Milne Inlet for the previous calendar year.

Term and Condition	Updated Term and Condition in Draft Project Certificate	Baffinland Comment on Revision
	Nunavut Planning and Project Assessment Act, S.C. 2013, c. 14, s. 2.	
179(b)	Until December 31, 2021, the total volume of ore transported by truck on the Milne Inlet Tote Road may exceed 4.2 million tonnes per year, but must not exceed 6.0 million tonnes in any calendar year. After December 31, 2021, the maximum total volume of ore transported by truck on the Milne Inlet Tote Road in a calendar year returns to 4.2 million tonnes per year, unless this condition has been further modified under section 112 of Nunavut Planning and Project Assessment Act, S.C. 2013, c. 14, s. 2.	Baffinland will continue to include in its Annual Report to the NIRB the total amount of ore transported via the Tote Road for the previous calendar year.
179(c)	The Proponent shall be required to resource and support a third party to conduct performance audits of commitments made by the proponent in relation to both the IIBA and every proponent commitment and every term or condition of the Project Certificate relating to environmental management of the tote road component or environmental management related to shipping. The Proponent shall file Performance Audit Reports with the NIRB on or before March 31 and September 30 of each calendar year.	Baffinland will file its third party Performance Audit Reports on or before March 31 and September 30 of each calendar year.
183	<p>The Proponent shall collaborate with the Marine Environmental Working Group (MEWG) to develop impact avoidance or mitigation strategies for the protection of the marine environment, and shall implement these strategies. The Proponent shall implement any direction from the Department of Fisheries and Oceans (DFO), issued in accordance with the Fisheries Act furtherance of their mandate, for any avoidance or mitigation measures, including cessation of any activity, for the protection of the marine environment.</p> <p>The Proponent shall every six months provide to DFO a tracking table of:</p> <ul style="list-style-type: none"> -(i) collective recommendation of the other members of the working group, - (ii) any directions from DFO. For each, the table 	<p>Baffinland will continue to work with the MEWG and DFO to develop impact avoidance or mitigation strategies for the protection of the marine environment as needed.</p> <p>Baffinland will implement any evidence-based direction from DFO for the protection of the marine environment. Baffinland requires confirmation which group within DFO will be responsible for issuing direction and accepting tracking tables.</p> <p>Baffinland will provide DFO a tracking table that summarizes recommendations for mitigations made by the MEWG and direction provided by DFO. The tracking</p>

Term and Condition	Updated Term and Condition in Draft Project Certificate	Baffinland Comment on Revision
	<p>must show the Proponent's means of implementation. Where any direction or recommendations are not fully implemented, the Proponent shall include the rationale.</p>	<p>table will include a column detailing its efforts to implement these mitigations and the associated outcomes, or provide a substantial rationale for why the recommendation cannot be partially or fully implemented.</p> <p>Baffinland expects that these recommendations for additional mitigation strategies will be largely driven by a review of the results of the previous year's monitoring programs.</p> <p>Subsequently, Baffinland recommends that the frequency for providing these tracking tables is once per year (following the close of the shipping season). This tracking table would capture the MEWG and DFOs recommendations for mitigations following their review of the previous year's monitoring program results (and prior to the start of the shipping season) and Baffinland's efforts to implement the mitigations during the shipping season. Should two reports per year be required, Baffinland requires the suggested timing and supporting rationale to assist with the development and delivery of the tracking table.</p>

Should the NIRB wish to discuss any of the feedback provided in this letter for further clarification or otherwise, please do not hesitate to contact the undersigned.

Regards,



Lou Kamermans
Senior Director, Sustainable Development
Baffinland Iron Mines Corporation

Cc: Solomon Amuno, NIRB
Cory Barker, NIRB
Kelli Gillard, NIRB
Stephanie Autut, NWB
Karén Kharatyan, NWB
Megan Lord-Hoyle, Baffinland
Jared Ottenhof, QIA

Attachments

Attachment 1: Memo re: Northern Shipping Corridor Anchorage Locations
Attachment 2: Potential Anchorage Locations

ATTACHMENT 1

MEMO RE: NORTHERN SHIPPING CORRIDOR ANCHORAGE LOCATIONS



MEMO

To: North Baffin Hamlet and Hunter and Trapper Organization Representatives
From: Baffinland Iron Mines
cc:
Date: January 13, 2020
Re: Northern Shipping Corridor Anchorage Locations

INTRODUCTION

The Technical Advisor for the Igloolik Working Group requested that Baffinland provide information about alternate anchorage locations that were proposed by the Mittimatalik Hunter and Trappers Organization (MHTO) for Baffinland's consideration.

The following memo provides information about the work Baffinland has carried out to examine the proposed anchorage locations. Some of the information contained in this memo was previously shared with the Mayor of Pond Inlet, MHTO Chair, and Qikiqtani Inuit Association (QIA) in correspondence sent on July 16, 2019.

Accompanying this memo is a map (Figure 4: Existing and Pond Inlet Suggested Anchorage Locations) that indicates the existing anchorages at Ragged Island and Milne Port as well as those areas which have been proposed and studied. It is also noted that the QIA and the MHTO were consulted during emergency response planning for the northern shipping route, which included the establishment of anchor sites and potential temporary refuge areas.

The information presented below should be reviewed in concert with the various adaptive management and mitigation measures that Baffinland has implemented since beginning operations to minimize effects of the Project on marine mammal harvesting activities within the Project area, including limiting the number of vessels anchored at Ragged Island to a maximum of three (3) at any point during the shipping season. These changes have been implemented in direct response to community concerns, as well as through ongoing review of environmental considerations. Baffinland also implemented several new mitigation measures in 2019 that were designed to minimize effects of shipping on land users and the marine environment. Some notable mitigation measures are summarized below:

1) Prior to the start of the shipping season, ore carriers waiting for escort services into the RSA were instructed to hold position a minimum of 40 km to the east of the Nunavut Settlement Area Boundary (i.e., 40 km east of 73°W) in Baffin Bay. This was implemented in response to community concerns from 2018 regarding potential interactions with narwhal staging at the floe edge and was maintained over the entire length of the shipping season.

2) At the start of the shipping season, placing restrictions on the maximum number of vessel transits per 24 hours based on ice conditions.

3) Development of an extensive Shipping Communications Standard Operating Procedure for the Project, that includes the hiring of two-full time shipping monitors within Pond Inlet who provide community updates on vessel traffic both over community radio and VHF throughout the shipping season.

4) Establishment of 'no-go zones', specifically along the shoreline of Bruce Head which has been identified as an important hunting area and Koluktoo Bay.

5) Development of bowhead hunt management plans with the community of Pond Inlet for years where tags are provided to minimize interference with the community hunt.

PROPOSED ANCHORAGE LOCATIONS

During a site visit in 2018, the MHTO proposed three alternate anchorage locations for Baffinland to consider (identified as Option 1, 2 and 5 on Figure 4). An additional two alternate anchorage locations were later proposed by MHTO during the pre-shipping meeting in Pond Inlet on June 25 2019 (identified as Options 3 and 4 on Figure 4).

Baffinland's shipping team has assessed the viability of all alternate locations that were brought forward for consideration. The following describes why each of these locations were identified as being infeasible for current operations and under the proposed Phase 2 operations scenario.

Option 1: Eskimo Inlet

Upon examination it was found that Eskimo Inlet was too narrow. At its greatest extent, the corridor is only 1.5 nautical miles wide, which would create a safety risk for vessels transiting to and from anchorage and for maneuvering within the corridor. The exposed nature of the Inlet also increases the risk of vessels being trapped by drifting ice, specifically during the shoulder seasons as proposed for Phase 2 operations. Water depth is unacceptable for anchoring as it exceeds ~250 meters. For all of these reasons it was determined that Eskimo Inlet is not suitable for anchorage.

Option 2: South Bylot

Upon examination it was found that the proposed South Bylot anchorage location is in the current ship track, which would result in a need to reroute vessel traffic closer to Pond Inlet to reduce safety risks associated with this overlap. The area also leaves vessels at anchor exposed to extreme weather events (i.e. high winds and ice bergs) without a refuge area (i.e. an enclosed area). Vessels would also be unable to anchor as the water depth is greater than 300m. For all of these reasons it was determined that South Bylot is not suitable for anchorage.

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Option 3: Guys Bight

Upon investigation it was determined that although Guys Bight appears to have potentially have suitable depths for anchorage, existing nautical charts are not detailed enough to confirm the feasibility of safe anchorage in this area. From an operations perspective, anchoring from this location would also present potential disruptions to the loading sequence given the considerable distance to Milne Port (~120 nautical miles). This would be exacerbated in the shoulder season when transit restrictions apply. For all of these reasons it was determined that Guys Bight is not suitable for anchorage.

Option 4: Erik Harbour

The proposed Erik Harbour anchorage location would be difficult to enter due to a rocky outcropping at the entrance to the Harbour. This would result in vessels needing to anchor at the entrance to Erik Harbour rather than within the Inlet, leaving them exposed to ice drifting from Pond Inlet. At the entrance of Erik Harbour, the water depth is also greater than 100m. Vessels would also be unable to anchor as the water depth is greater than 100m at the entrance. For all of these reasons it was determined that Erik Harbour is not suitable for anchorage.

Option 5: Entrance to Baffin Bay

This location was proposed by MHTO in 2018 as an alternative drifting location to Eclipse Sound. This location is very exposed to weather and ice conditions making it unsafe for drifting. Furthermore, given the newest measures implemented in 2019 (requiring ore carriers to hold position at a minimum of 40 km to the east of the Nunavut Settlement Area boundary in Baffin Bay), Baffinland no longer considers the need for an alternative drifting location within Eclipse Sound/Pond Inlet area. For all of these reasons, this location is not suitable as an alternative drifting location.

CONCLUSION

Baffinland remains open to working with all North Baffin Communities and Hunters and Trappers Organizations, particularly the Hamlet of Pond Inlet and the MHTO, to examine other potential anchorage locations in the region. To date no suitable location outside of Ragged Island has been found that can support safe operations in the Northern Shipping Corridor. Based on operational requirements, Baffinland does not believe that suitable alternate locations within the Corridor are likely to be identified, based on the need to find an area that:

- Is within reasonable close proximity to the Milne Port
- Where depth is no greater than 100m
- Where width allows for safe maneuverability
- That provides refuge during weather events
- Allows for 3 vessels to be safely anchored at the same
- Is not considered to be of heightened ecological importance (e.g. Koluktoo Bay or Tremblay Sound)

ATTACHMENT 2

POTENTIAL ANCHORAGE
LOCATIONS

