



May 17th 2021

Nunavut Impact Review Board (NIRB)
PO Box 1360
Cambridge Bay, NU
X0B 0C0

Dear NIRB,

**Subject: Baffinland Iron Mines Corporation's Mary River Project – Technical Memorandum:
Preliminary Summary of 2020 Narwhal Monitoring Programs**

As requested by the Nunavut Impact Review Board (NIRB) in their correspondence dated April 8, 2021, Parks Canada is providing the following comments in response to Golder's Technical Memorandum: Preliminary Summary of 2020 Narwhal Monitoring Programs submitted by Baffinland to the NIRB.

Parks Canada notes that on May 13, 2020, Baffinland Iron Mines Corporation (Baffinland) provided draft reports to the Marine Environmental Working Group (MEWG) for the 2020 Monitoring Program which contain more detailed information and data relevant to this Technical Memorandum. Baffinland has requested that Marine Environmental Working Group (MEWG) members provide comments on these draft reports by June 24, 2021. Parks Canada intends to review these reports which may result in further comments and question on this Technical Memorandum.

The following table (Table 1) outlines Parks Canada's comment and questions on the Technical Memorandum. Parks Canada would also like to indicate our support for the comments and questions provided by the Department of Fisheries and Oceans Canada in relation to this Technical Memorandum.

Table 1

Section	Reference	Comments/Questions
1.0 (pdf p1) 1.0 (pdf p2)	"Identification and implementation of precautionary Project-based operational mitigations for shoulder season shipping..." "Based on a preliminary review, potential causal factors of the 2020 decreases narwhal abundance in	BIM has pointed to the impacts of ice breaking as the potential causal factor from the project for low Narwhal numbers in the project area. Parks Canada would like to note that it is possible that the low numbers of Narwhal is a cumulative effect from the overall volume of project shipping, including both open water shipping and ice breaking. As a result, it may be useful for



	Eclipse Sound include” acoustic disturbance from icebreaking, pile driving and increased killer whale presence.	<p>Baffinland to identify other operational mitigations beyond the shoulder season (i.e., during peak shipping, during identified narwhal calving, or at assumed peak local narwhal abundance).</p> <p>Parks Canada also suggests that work towards further developing the existing Early Warning Indicator (EWI), as well as at least one other EWI, be prioritized to help understand the cumulative and causal factor(s) related to this current observed decrease in narwhal abundance as well as the overall trend in narwhal condition and abundance and health of the marine ecosystem in Eclipse Sound and Milne Inlet.</p>
1.0 (pdf p2)	“Golder recommends additional Project-related monitoring be undertaken by Baffinland; in particular aerial based surveys in 2021 to obtain an abundance estimate for the Eclipse Sound summer stock, as well as instrumentation of narwhal with satellite tags during early season ice conditions to fill data gaps associated with narwhal interactions with icebreaking.”	Has the Qikiqtaaluk Wildlife Board's recent guidance regarding direct handling of wildlife by researchers (e.g., for tagging) and the unknown impacts of COVID-19 on terrestrial and marine mammals been considered in monitoring plans?
1.0 (pdf p2), 4.1 (pdf p19), 5.1 (pdf p31)	Same as above	<p>Have alternative non-invasive research methods such as land-based theodolite tracking to monitor fine scale behavioural impacts (dive time, reorientation rates, swim speed, etc.) around shipping been considered? This type of work could potentially be added to the existing Bruce Head monitoring site. These types of methods may also capture more individual variation in behavioural responses to shipping (e.g., capturing mother-calf pairs, groups, individuals, etc.).</p> <p>Are there plans for more directed behavioural studies other than satellite tagging?</p>
3.1 (pdf p4)	“The objective of Leg 2 surveys were to obtain abundance and density estimates of marine mammals in the RSA during the open-water season including an annual abundance estimate for the Eclipse Sound and Admiralty Inlet narwhal summer stocks.”	<p>Was the leg 2 survey done at assumed peak local abundance before migration back to overwintering areas?</p> <p>Did BIM consult with communities on when Narwhal stop moving before they migrate back to wintering grounds?</p>

3.2 (pdf p7)	"This suggests that calf presence (calving success) at Bruce Head is still occurring at a rate that is consistent with pre-shipping conditions..."	How is calf success defined? This is normally associated with a measure of calf survival which doesn't seem to be the case here, but rather more of a binary calf presence.
5.1 (pdf p30)	"the draft Marine Monitoring Plan (Baffinland 2021)..."	The last Marine Monitoring Plan that Parks Canada has reviewed is from 2019. As a result, Parks Canada has not reviewed the draft version referred to here.
5.2		Parks Canada supports Baffinland's commitment to integration of Inuit Qaujimajatuqangit noted in section 5.2 of the report and suggests that this must be prioritized when interpreting the results of this report and when developing mitigations.
5.4	General Comments on mitigation options provided.	<p>Of the five mitigation options presented in section 5.4.1 of the Preliminary Summary of Narwhal Monitoring Programs, only options 1 and 5 appear to provide enhanced mitigation beyond what is already committed to in the "Summary of Baffinland Commitments for the Phase 2 Expansion Project [current to April 1, 2021; DRAFT]", which provides commitments related to icebreaking that will begin in the 2021 shipping season. These include commitments to spring (DFO 3.4.4 NEW (1)) and fall transit restrictions (DFO 3.4.4 NEW (2) and (3)).</p> <p>As part of an adaptive management strategy for enhanced mitigation Parks Canada would like to see mitigation options that are more robust than those already committed to.</p>

Parks Canada recommends that Baffinland continue to engage with the MEWG and with Inuit to determine if any other enhanced mitigation options exist that may provide greater protection to narwhal.

If you have any questions, please contact Allison Stoddart at (819) 661-0283, or by email at allison.stoddart@canada.ca.

Sincerely,

Allison Stoddart
Environmental Assessment Specialist,
Parks Canada

