



Marine Monitoring and Marine Mitigation Workshop Summary Report Pond Inlet, May 1-2, 2019



Baffinland Iron Mines Corporation's
Mary River Project
(NIRB File No. 08MN053)

Report Title: Marine Monitoring and Marine Mitigation Workshop Summary Report for Baffinland Iron Mines Corporation's Mary River Project (NIRB File No. 08MN053)

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Cover photo: Ore stockpiles in Milne Inlet

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ACKNOWLEDGEMENTS

The Nunavut Impact Review Board (NIRB or Board) would like to thank all those who participated in the recent marine monitoring and marine mitigation workshop held in Pond Inlet May 1-2, 2019 as part of the Board's ongoing monitoring program for Baffinland Iron Mines Corporation's (Baffinland or Proponent) Mary River iron mine (NIRB file No.: 08MN053). The objective of the workshop was to engage with the community most affected by the approved project's shipping and marine-related activities to hear concerns, questions and comments from community members related to project effects and monitoring results, and to discuss the effectiveness of current monitoring and mitigation measures. The workshop was successful with open dialogue between parties and resulted in extensive feedback being collected which can be used to realize improvements for the Mary River project's 2019 shipping season.

The NIRB would like to acknowledge the many Elders and community members who actively participated in the workshop, sharing their experiences and Inuit Qaujimaningit with the NIRB staff and other workshop participants, along with their questions and comments about the monitoring of the approved project. The NIRB thanks the representatives from Baffinland for making best efforts to provide background information on project activities, monitoring results and plans for the 2019 season, for listening carefully to questions and comments from workshop participants and for providing direct, respectful responses to feedback and commitments for follow up.

Finally, the NIRB thanks the community of Pond Inlet for the warm hospitality once again offered to the NIRB staff and other workshop participants during their most recent visit.

Sincerely,

A handwritten signature in black ink that reads "Ryan Barry". The signature is written in a cursive style with a long horizontal line extending from the end of the name.

Ryan Barry
Executive Director
Nunavut Impact Review Board

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1.0 INTRODUCTION

1.1 Background of the Production Increase and Marine Workshop

The Nunavut Impact Review Board (NIRB or Board) facilitated a Marine Monitoring and Marine Mitigation Workshop in Pond Inlet May 1-2, 2019 as part of the Board's ongoing monitoring program for the approved Mary River iron mine operated by Baffinland Iron Mines Corporation (Baffinland; Proponent). This workshop was held in response to the direction provided by the Responsible Ministers¹ in their decision to approve Baffinland's Production Increase proposal, which allowed Baffinland to increase shipping from Milne Inlet from 4.2 Mt/a to 6 Mt/a iron ore until the end of 2019. The approval of the production increase amendment meant that transits by ore carriers would be increasing from 55 round trips per season to 83 round trips each shipping season to transport up to 6 Mt/a of iron ore to markets in Europe and Asia. Recognizing that project shipping and marine-related activities were a source of concern for the Qikiqtani Inuit Association (QIA) and the community of Pond Inlet prior to the approval of the Production Increase, the workshop was designed to allow for presentation of monitoring results from Baffinland and discussion of implications for the upcoming 2019 shipping season in particular.

The workshop was held in the community of Pond Inlet to promote the direct involvement of the QIA, the Mittimatalik Hunters and Trappers Organization (MHTO), and the Hamlet of Pond Inlet in the review of project monitoring data including information collected under community-based monitoring programs related to the approved Project. The NIRB considered the month of May to be the time that best aligned with the availability of monitoring results and review of Baffinland's Annual Monitoring Report, prior to the commencement of the shipping season such that additional mitigations can be applied if warranted.



Figure 1: Ore stockpiles in Milne Inlet

¹ Ministers of Intergovernmental and Northern Affairs and Internal trade, Transport Canada, Natural Resources Canada, Fisheries and Oceans Canada and the Canadian Coast Guard.

The primary goal of the workshop was to provide a forum where community members could provide feedback, ask questions, share Inuit Qaujimajatuqangit (IQ) and community perspectives on project-related shipping, and discuss the effectiveness of current monitoring and mitigation measures, including results of ongoing community-based monitoring programs relevant to the marine impacts of the approved project. Another secondary focus was to ensure that the impacts of the production increase activities are broadly examined and considered during the ongoing assessment of the Phase 2 Development Proposal, and that the experience, knowledge and data gained over the duration of the production increase is integrated into that assessment process.

In order to address the Board's concerns for potential adverse effects of the increase in ore production, the Responsible Ministers varied the terms and conditions of Project Certificate No. 005 to allow a time-limited increase in production and transport of iron ore for the Mary River Project. Consequently, the NIRB updated the terms and conditions of Project Certificate No. 005 (Amendment No. 2) to incorporate the wording provided by the Responsible Ministers for the varied (condition #10) and additional terms and conditions (#179(c), #183 and #184) as required to manage the potential for significant adverse ecosystemic and socio-economic effects of the production increase activities. The revisions in Amendment No. 2 established mechanisms to audit Baffinland's delivery of benefits in the region and its compliance with environmental management commitments in relation to the Tote Road and marine shipping, and to support verification of monitoring and mitigation efforts related to the potential for effects on marine mammals due to project shipping.



Figure 2: Representatives of the QIA

This report summarizes the record of discussions, including comments and concerns raised during the two-day workshop pertaining to marine monitoring and marine mitigation for the approved project while also providing advice and direction from the Board to Baffinland to be addressed moving forward.

2.0 NIRB WORKSHOP

2.1 Overview

The workshop took place over two days and included a variety of mediums for the presentation and sharing of information. The overall objectives of the workshop were to:

- Review the results of ongoing community-based monitoring programs relevant to the marine environment including implications for applied mitigation and planned 2019 activities;
- Share information and get input to the effectiveness of current monitoring and mitigation measures that relate to project-shipping and impact to marine mammals;
- Identify ways that the community most affected by the project can enhance its preparedness and capacity to be involved in marine environment monitoring; and
- Integrate the experience, knowledge and data gained over the duration of the production increase into the ongoing review process of the Phase 2 Development Proposal.

The workshop was facilitated by NIRB staff and structured to encourage informal, face-to-face discussions of project-specific shipping activities and associated monitoring and mitigation measures, specifically their effectiveness and application to the approved production increase for the Mary River project. The workshop provided an opportunity for the open sharing of information and perspectives and the development of ideas relevant to marine monitoring and mitigation measures for the approved project.



Figure 3: NIRB staff facilitating workshop and recording comments

2.2 Participation

Community organizations, including members of the Mary River Marine Environment Working Group (MEWG) and responsible authorities with marine-related mandates or expertise were invited to participate in the workshop. During the workshop, NIRB staff members were joined by representatives of the following organizations and government agencies:

- Qikiqtani Inuit Association
- Hamlet of Pond Inlet
- Mittimatalik Hunters and Trappers Organization
- Government of Nunavut
- Crown-Indigenous Relations and Northern Affairs Canada
- Fisheries and Oceans Canada
- Parks Canada
- Transport Canada
- World Wildlife Fund



Figure 4: Workshop participants

2.3 Public Notice

Notification is essential for effective public engagement and is a prerequisite of the NIRB's community engagement sessions. The NIRB informed the QIA, the MHTO, the Hamlet of Pond Inlet, and members of the MEWG of the upcoming workshop and circulated the draft agenda through official correspondence, following up by phone and email to discuss questions and feedback, and posting advertisements through

print media, radio, and cable television well in advance of the workshop. Copies of advertisements used for the workshop are available on the NIRB's Online Public Registry at www.nirb.ca.²

2.4 Setup

The workshop sessions were open to all members of the community and general public, and all attendees were asked to sign-in at each session. The NIRB staff delivered a brief PowerPoint presentation at the opening of the workshop which provided an overview of Baffinland's phased approach to development and highlighted the NIRB's purpose for hosting the workshop. The NIRB presentation was delivered in English with simultaneous interpretation in Inuktitut and the public was encouraged to provide comments or ask questions about any marine-related concerns about the project.



Figure 5: Inuktitut interpretation during workshop sessions

2.5 Workshop Materials

The basis for workshop discussions was a series of PowerPoint presentation materials prepared by Baffinland in English and Inuktitut and delivered in English with simultaneous interpretation in Inuktitut. The NIRB, the Proponent and DFO also posted different information posters within the community hall to foster engagement and discussions with community members on marine-related topics. High-resolution maps of the marine environment associated with the project area were provided by Baffinland, as well as a 3-dimensional model of the project development area.

During the workshop, the following materials were provided by the NIRB:

- NIRB PowerPoint presentation in English and Inuktitut
- NIRB Reconsideration Report and Recommendations for Production Increase Proposal
- High resolution map of the northern shipping route
- Nunavut Agreement and Nunavut Planning and Project Assessment Act (in English)
- NIRB Comment Forms (in English and Inuktitut)
- NIRB's latest Annual Monitoring Report in English (Digital copy)

² Document ID Number: 324466 through 324469

Both written and verbal comments were accepted throughout the workshop sessions, with verbal comments being recorded by NIRB staff members and representatives from other agencies.



Figure 6: Workshop materials and community members viewing models and maps

2.6 Presentations

The Workshop Agenda has been attached as **Appendix A** of this report.

Workshop - Day 1 Session:

The first day of the workshop had Baffinland present information on the current status of ore production and transportation/shipment, including a general overview of each marine monitoring program, data collected to date, implications for applied mitigation and planned 2019 activities. Open discussions centered on topics related to IQ and marine mammals around the shipping route, and effectiveness of current monitoring and mitigation measures. During the evening session, Baffinland presented on its 2018 shipping activities, mitigation applied, monitoring conducted and results of its marine environment monitoring, and discussed plans for 2019 with a question and answer period open to the public.



Figure 7: Baffinland presentation and community member asking questions

Workshop - Day 2 Session:

The second day of the workshop generally covered topics related to the ship-based observer program, marine ecological effects monitoring program, and open discussions were focused on the progress and results of community-based marine monitoring program associated with the Mary River Project. Several emerging issues associated with project-related shipping including vessel management protocols, ice management, ice breaking as well as lessons learned from 2018 shipping season and recommendations for 2019 shipping season were discussed in detail.



Figure 8: Baffinland responding to questions from a community member

During the workshop session, questions, comments or concerns were raised by community members and, in each case, the NIRB staff gave opportunity to the Proponent to respond while taking notes of the exchanges. Copies of all Baffinland's presentation materials used during the workshop are available on the NIRB's Online Public Registry at www.nirb.ca.³

³ Document ID Numbers: 324715 through 324722.

3.0 SUMMARY OF FEEDBACK RECIEVED

Throughout the workshop community members asked questions and shared their comments and concerns on a variety of topics pertaining to Baffinland's Mary River Project, including on activities occurring as part of the approved production increase, and others specific to the Phase 2 Development Proposal currently undergoing assessment by the NIRB. As much as the focus of this workshop was on marine-related issues associated with the approved project, the Board will be incorporating the questions, comments, advice and knowledge shared by the community into the monitoring program and ongoing assessment of the Phase 2 Development Proposal as previously noted.



Figure 9: Community members viewing 3D model of the Project area⁴

The following is a tabulated summary of feedback, concerns and comments received from community members and other participants during the workshop in relation to currently approved project:

⁴ Photo provided by Bruce Stewart (QIA representative)

Issues	Comments/Concerns
Shipping Activities	<ul style="list-style-type: none"> Concerns that ore carriers and project shipping is interfering with traditional hunting activities of community members and causing loss of harvesting opportunities; Concerns that increased vessel traffic is altering the behaviour of marine mammals, particularly narwhals and causing disturbance and displacement to narwhal population; Concerns that the area being used by Baffinland for vessel anchorage directly overlaps with seal hunting areas; Use of an icebreaker during the last shipping season caused acoustic disturbance to seals and caused there to be no seals around the project area for harvest by community members; The area used as vessel drifting area is unacceptable to the MHTO and community members, yet it is still being used by the Proponent; Some of the vessels transiting the shipping route, including the Pond Inlet area were travelling too fast and generated a lot of noise.
Monitoring Program	
Ballast water and occurrence of Invasive alien species	<ul style="list-style-type: none"> Concerns that ballast water exchange from project ships may introduce non-native organisms into the port of discharge and the potential for these organisms to go undetected, or misidentified and not properly monitored; Concerns that the release of ballast water may be changing the salinity levels and freezing ability of Milne Inlet and causing disruption to the marine biological productivity of the area; Concerns that no adequate measures are in place to effectively reduce the risk of transporting or the incidental discharge of invasive species into the marine area; Concerns about the lack of reporting of species found in ballast water directly to the community.
Fish mortality events	<ul style="list-style-type: none"> Concerns about localized mass fish mortality events in the vicinity of the project area; Lack of DFO presence in the community to help investigate causes of fish die-off and determine whether they are project-related for potential enforcement actions; There should be studies done on fish to determine the levels of heavy metals and monitor whether they are ingesting iron ore, and the Proponent should report the results to the community.
Marine mammals	<ul style="list-style-type: none"> There is a need for Baffinland to incorporate IQ into its marine mammal monitoring program and include more Inuit into its ship-based observer program;

	<ul style="list-style-type: none"> ▪ Concerns regarding the potential for double-counting, perception error and misidentification during abundance surveys of marine mammals; ▪ Baffinland should clarify how group size is defined for the marine mammal observers; ▪ Concerns that aerial survey of narwhals may cause disturbance to narwhals and may not be appropriate for monitoring the narwhal abundance in the area; ▪ Concerns that the tagging of narwhals may make them sick; ▪ Clarification requested from DFO on whether if there is a fatality during narwhal tagging, would this be taken from the Pond Inlet's tags (quota)? ▪ Consideration should be given to community members to allow for fishing near the dock area; ▪ Lack of information on how the Proponent is complying with the requirement to establish early warning indicators for marine mammals, and clarification needed on what these indicators are and what happens when they are implemented.
Dust emissions	<ul style="list-style-type: none"> ▪ Comments regarding ongoing negative impacts of dust generated by the project, with specific concerns around dust deposition on snow, sea ice and drinking water sources near the project development area.
Capacity Development	<ul style="list-style-type: none"> ▪ There is a need for Baffinland to provide more funding and logistical support to encourage and support community-based monitoring programs; ▪ Baffinland should consider setting-up a laboratory in Pond Inlet so that testing of samples can be done within the community and results provided more quickly.
Others	<ul style="list-style-type: none"> ▪ Requested that the Proponent provide electricity to the MHTO cabins near the project area with consideration for the provision of heat and internet, television as well; ▪ Requested clarification on spill planning and procedures including compensation mechanisms for loss of harvesting opportunities.

In general, shipping effects on marine mammals is an area of contention between community members and Baffinland; specifically, the potential effect of increased shipping traffic on narwhals is of major concern to the community of Pond Inlet as is the uncertainty of effectiveness of current monitoring and mitigation measures.

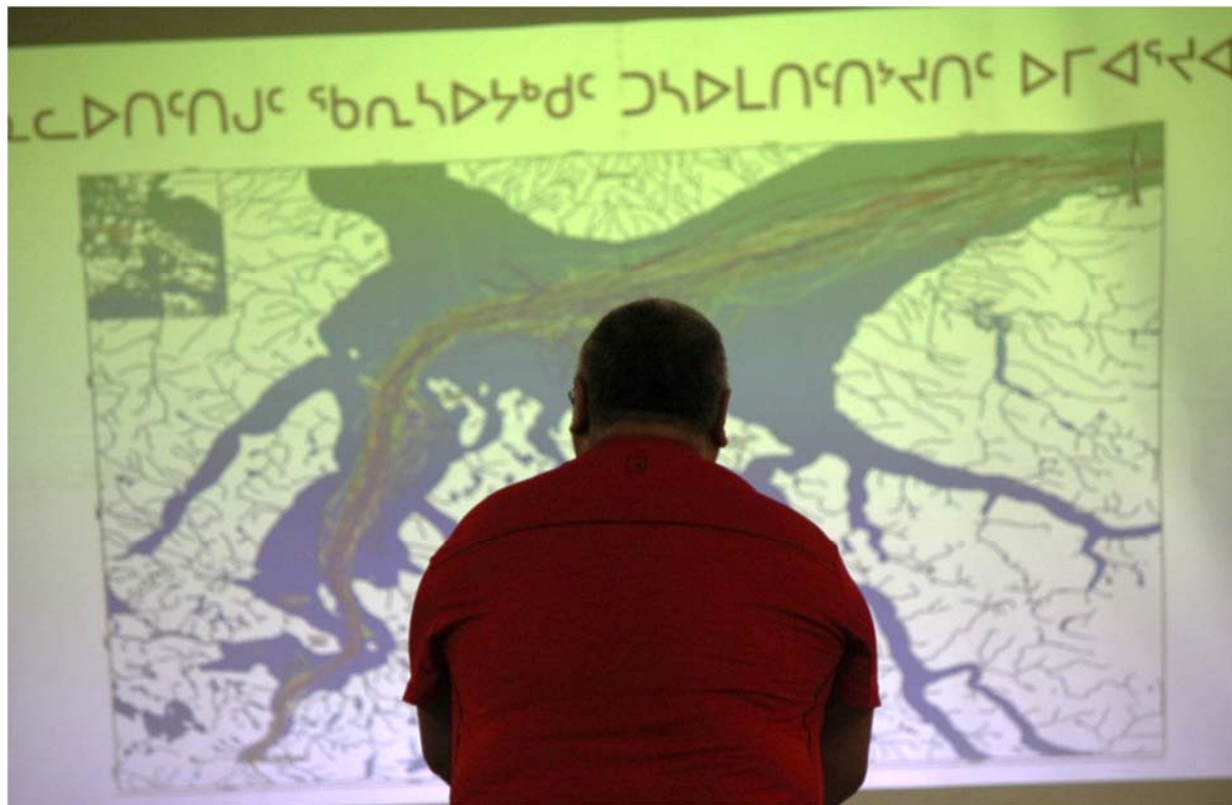


Figure 10: Community member viewing a presentation

The following is a summary of comments and concerns raised by community members directly related to the Phase 2 Development Proposal:

- Concerns regarding impacts to marine mammals due to increased shipping traffic, and disruption of traditional hunting/harvesting activities. Specifically, community members expressed concerns with how the increased shipping activities from the proposed Phase 2 Development would affect the health and movement of seabirds, marine fish, seals and narwhal in Milne Inlet and the Pond Inlet area;
- Potential for the north railway system to impede caribou movement including harvester movement and dog team race; and
- Concerns about additional employment opportunities, reclamation of the area from the north railway system, and business and contracting opportunities available to Inuit.

4.0 SUMMARY AND CONCLUSION

Generally, the intended outcomes of this workshop were to:

- Discuss community perspectives on project-related shipping and impacts;
- Receive updates on the status of Baffinland's Marine Monitoring Programs with specific focus on the data collected to date, implications for applied mitigation and planned 2019 activities;
- Assess the effectiveness of current monitoring and mitigation measures and discuss the results of ongoing community-based monitoring programs relevant to the marine environment;
- Determine whether the monitoring and mitigation measures proposed to reduce or eliminate marine-related impacts due to project shipping are supported by Inuit land users;
- Create an opportunity to learn about additional marine protection measures identified by Inuit who are knowledgeable and active in the Project area to reduce impacts.

Community members and participants in the workshop gave feedback about the effectiveness of current monitoring and mitigation measures for the approved project and identified several areas requiring improvements prior to the commencement of the 2019 shipping season. Participants from a range of backgrounds and agency representatives with marine related expertise and mandates also contributed to an open and respectful dialogue throughout the workshop. Community members and community organizations contributed valuable firsthand knowledge of marine-related issues and observations associated with the activities of the approved project. In turn the Proponent had the opportunity to engage and listen to community perspectives in order to identify areas where monitoring gaps still exists and improvements can be realized in terms of marine monitoring and mitigation measures prior to the commencement of the 2019 shipping season. Generally, the discussions did not solve any of the challenges facing Pond Inlet as shipping traffic continue to increase with the approval of the production increase activities. However, the workshop created an opportunity to inventory a range of marine-related concerns and priorities and identified gaps that need to be addressed prior to the commencement of the 2019 shipping season and in the ongoing monitoring of the approved project. It also laid the groundwork for clearly identifying some marine-related concerns related to the Board's assessment of the Phase 2 Development Proposal.

4.1 Board Recommendations and Direction

The increased shipping levels and marine-related activities approved under the Production Increase must fully meet the requirements of the amended Project Certificate terms and conditions, and Baffinland must ensure that the potential adverse effects to the marine environment are adequately mitigated. To assist these efforts, the Board has determined that certain aspects of the ongoing monitoring program may need to be improved, and/or require additional follow-up actions to address potential marine adverse effects and community concerns.

a) The following monitoring items should be addressed by the Proponent for the 2019 Shipping Season:

1. **Strengthening the use of Inuit Qaujimaningit**

Based on the feedback received during the workshop, the NIRB notes that community members appear to be generally unsatisfied with the level of IQ applied into Baffinland's marine mammal monitoring program, particularly the ship-observer program, narwhal tagging and the aerial survey program, and the limited coordination with Inuit. Specifically, community members requested for Inuit presence aboard shipping vessels to physically monitor for any adverse effects to marine mammals, including seabirds.

Baffinland indicated that its ship-based observer monitoring program was re-initiated in 2018 and that two Inuit marine mammal observers participated in this program; the NIRB encourages the Proponent to do more by developing monitoring-related training opportunities to secure more local Inuit participation in the shipping component of the Project.

Specifically, the Board finds that efforts should be undertaken to increase awareness of community organizations regarding local hires being tasked with the monitoring activities, with those hired supported through the MHTO to ensure confidence in the skills of the monitors. There is also a need for the Proponent to engage more proactively with community organizations, such as the MHTO, to solicit Inuit Qaujimaningit during the design and execution of key marine monitoring programs including marine mammal monitoring.

A major gap to be addressed for the 2019 shipping season relates to ensuring that the perspectives of community groups, particularly the MHTO and MEWG are taken into consideration prior to and during the implementation of monitoring programs to ensure that the techniques contemplated for use are acceptable to the community and do not pose any adverse risk to the welfare of marine mammals. A key strategy for strengthening the use of IQ and successfully implementing the marine monitoring programs for the project is to engage and solicit MHTO perspectives prior to the shipping season and allow community feedback to inform the implementation of monitoring programs. It is recommended that the Proponent demonstrate how it has implemented any direction provided by the MHTO, DFO and the MEWG for the protection of the marine environment pursuant to term and condition 183 of the Project Certificate.

2. Ballast water exchange and concerns around invasive species

The NIRB notes that ballast water exchange and the potential for marine environment remains a concern for community members and other workshop participants. It was noted during the workshop that there are knowledge gaps about ballast water monitoring practices aboard ships transiting the northern shipping route and no information is available on the protocols followed by vessel operators to ensure that salinity levels and invasive species in ballast water are verified prior to exchange at Milne Port in accordance with Ballast Water Management Regulations. A major gap relates to the lack of a finalized and stand-alone Ballast Water Monitoring Plan for the approved project. Based on the responses and clarification given by Baffinland's shipping contractor during the workshop, there is confidence that ship operators contracted are following the required exchange regulations because of the reporting required by Transport Canada. However, the effectiveness of these regulations alone in preventing introduction of invasive species is uncertain and has QIA and others wanting to see a more precautionary approach taken.

During the workshop Baffinland reported that its Aquatic Invasive Species Monitoring program has yielded a relatively large baseline dataset of marine organisms residing in Milne Inlet. Further investigations into the status of several new species identified during the program are in progress in consultation with DFO, with representative specimens sent to a second laboratory for confirmatory taxonomic analysis. Throughout the workshop, community members commented that Baffinland has not provided any clear information on the new species identified nor confirmed the results of their taxonomic analysis; the Board is concerned that this communication gap is already fueling speculations that the new species detected are foreign invasive species.

For the 2019 shipping season, the Board recommends that the Proponent involve the local community in the Aquatic Invasive Species Monitoring program to ensure that results of any new species detected or identified in the area be reported to the community as well as MEWG members. The Board also recommends that prior to the commencement of 2019 shipping season the Proponent develop a ballast water monitoring plan that addresses community concerns pertaining to monitoring salinity levels and invasive species.

3. Vessel management

Throughout the workshop community members expressed concerns that too many vessels and ships were transiting the Pond Inlet area and causing disruption to traditional hunting activities. Concerns were also raised regarding vessel interactions with marine mammals and the potential for increased ship traffic to cause disturbance to narwhals, seals and seabirds. Community members consistently expressed that the area identified and used by the proponent for the drifting and anchorage of vessels were not acceptable to the community yet continue to be used. This appears to be causing conflicts between project shipping and local harvesting of marine species.

Based on the feedback received from the MHTO and community members on the topic of vessel management it was evident to the NIRB that Baffinland has yet to fully address community concerns and incorporate community perspectives for the identification of project vessel anchorage sites and potential areas for drifting to avoid disturbance to marine mammals. While recognizing that the safe operation of vessels is paramount, the NIRB reminds the Proponent of its responsibility to ensure marine wildlife and Inuit harvesting is protected. The Board directs Baffinland to consult with community groups, particularly the MHTO and members of the MEWG to reach a consensus on suitable anchorage and drifting areas for vessels prior to the commencement of the 2019 shipping season. Baffinland must demonstrate how it is preventing or mitigating vessel interference with marine mammals and traditional hunting activities pursuant to term and condition 125(a) of the Project Certificate. Baffinland must provide a written update to the NIRB prior to the commencement of the shipping season informing the NIRB of the areas to be used for drifting and anchorage of vessels with details of how community feedback and comments from the MEWG was used to inform the selection of suitable areas. It is requested that this update be provided within the next 60 days and details on the periodic verification of site suitability included within the Annual Reports to the NIRB moving forward.

4. Fish mortality events and reporting to community

During the workshop, community members expressed concerns regarding mass fish mortality events of unknown causes observed near the project area. The MHTO expressed disappointment that no investigations have been conducted so far by the Proponent or DFO to determine the cause of fish kills in the area. Community members also expressed concern that there is no information regarding whether such mortality events are project related or caused by other natural factors. Recognizing that community members engage in fishing and hunting activities around the project area and are expressing concerns over mass fish kills around the site, the NIRB expects the Proponent to take this issue seriously and find ways to improve its fish monitoring program in the affected areas to address public concerns.

The NIRB expects Baffinland work more collaboratively with MHTO and DFO to proactively investigate the causes of fish die-offs in the area and ensure that the results of any investigations conducted in the area

are reported back to the community. The Board recommends that Baffinland improve its fish monitoring program by conducting additional monitoring surveys in those areas where fish kills have been observed and work collaboratively with DFO and MHTO to investigate the cause of fish mortality events in the area. The NIRB also recommends that the results of any investigations conducted in the area be reported back to the community. It is requested that an update regarding this recommendation be provided within the Annual Reports to the NIRB moving forward.

b) Marine-related concerns for the ongoing assessment of the Phase 2 Development Proposal: Baffinland's FEIS Addendum indicates that the potential for impacts occurring to the marine environment and marine mammals associated with Phase 2 Development Proposal will be non-significant, including disturbance caused by airborne and/or underwater sound from construction, shipping and aircraft, masking of environmental sounds, and mortality. The NIRB is concerned that such conclusions of non-significance may not have fully considered the community's observations or be supported with empirical data in respect of the increased intensity of vessel traffic associated with the proposal. Based on comments from community members during the workshop, and considering the monitoring, mitigation and management information supplied to the NIRB in fulfillment of the Board's monitoring program for the approved project, the Board is concerned that adverse effects to the marine environment from project operations may be occurring, and that impacts to marine mammals due to project-shipping may have been underestimated.

Some additional areas of concern noted by NIRB staff during the workshop relevant to the Phase 2 Development Proposal include the following:

1. Evidence appears to be lacking for how public consultation and Inuit Qaujimaningit/Qaujimajatuqangit, local knowledge and community knowledge have influenced the planning and design of the proposed activities and associated management plan updates.
2. The Phase 2 Development Proposal does not address in a direct manner how Baffinland proposes to improve mitigation/management of the ecosystemic and socio-economic effects that have been identified by the community of Pond Inlet to date associated with the approved Mary River Project. Particularly in relation to the impacts of increased shipping, ballast water exchange, potential disturbance to marine mammals, seabirds and fish populations.
3. Community members have indicated that the Proponent has not yet produced clear or effective plans to address the shipping-related effects of the approved Mary River Project.
4. To date, the existing marine mammal monitoring programs particularly the ship-observer program, narwhal tagging, and the aerial survey program undertaken as part of Baffinland's ongoing monitoring for the Mary River Project has not generated sufficient results to address concerns and gaps in the assessment of shipping impacts to marine mammals.

4.2 Conclusion

The NIRB expects Baffinland to respond to the issues raised in this report and by the community of Pond Inlet to communicate how concerns will be addressed for the 2019 shipping season. Due to the ongoing assessment of the Phase 2 Development Proposal and the increased intensity of shipping activities included within the scope of the proposal specifically, the Board has also highlighted areas of concern that Baffinland should be prepared to address moving forward. The NIRB requests that for items requiring

follow-up action by Baffinland that a response be provided within the timeline as requested for each of the recommendations.

APPENDIX A - AGENDA

WORKSHOP AGENDA

NIRB File No.: 08MN053 – Marine Monitoring and Marine Mitigation Workshop
Proponent: Baffinland Iron Mines Corporation
Facilitator: Ryan Barry, NIRB Executive Director
Location: Atakaalik Community Hall, Pond Inlet, NU
Dates & Times: May 1, 2019: 9:00 am – 5:00 pm; 6:30 pm – 9:00 pm
May 2, 2019: 9:00 am – 5:00 pm

Note: All times given are approximate. The order of discussion topics and times given are subject to change at the NIRB's discretion. A 10-15 minute health break will be provided during each morning, afternoon and evening session.

DAY 1 – WEDNESDAY MAY 1, 2019

1. NIRB Welcome and Opening Remarks (*15 minutes*)
 - Objectives of the Workshop
 - Discussion of the NIRB's role
 - Introduction of Participants
 - Housekeeping Items
 - Overview of Agenda
2. Baffinland Overview Presentation: (*45 minutes*)
 - Current status of ore production and transportation/shipment
 - Overview of 2018 shipping activities and mitigation applied
 - Compliance status with NIRB Project Certificate - marine related terms and conditions
3. Status of Baffinland's Marine Monitoring Programs (*30 minutes*)
 - Tremblay Sound Narwhal Tagging Program
 - Bruce Head Monitoring Program
 - Overview of each program, data collected to date, implications for applied mitigation and planned 2019 activities
4. Planned 2019 Shipping Activities, Mitigation and Monitoring (*30 minutes*)
5. Open discussion:
 - Inuit Qaujimajatuqangit (IQ) and marine mammals around the shipping route
 - Community perspectives on project-related shipping and impacts
 - Effectiveness of current monitoring and mitigation measures
 - Results of ongoing community-based monitoring programs relevant to the marine environment
6. Afternoon session wrap-up with comments and feedback from participants
7. Evening session (6:30 – 9:00 pm):
 - Presentation by Baffinland on 2018 shipping activities, mitigation applied, monitoring conducted and results, and plans for 2019 (*45 minutes*)

- Question and answer session with public

DAY 2 –THURSDAY MAY 2, 2019

1. NIRB Opening Remarks (*10 minutes*)
 - Day 1 Recap and Day 2 brief
2. Status of Baffinland's Marine Monitoring Programs (continued): (*30 minutes*)
 - Ship-based Observer Program
 - Marine Ecological Effects Monitoring Program
 - Overview of each program, data collected to date, implications for applied mitigation and planned 2019 activities
 - Updates on coordination with monitoring by DFO and other agencies
3. Open discussion:
 - Progress and results of community-based marine monitoring program associated with the Mary River Project
4. Emerging issues for project-related shipping (*45 minutes*)
 - Ice management/ice breaking activities and coordination with MHTO
 - Vessel management protocols (anchorage and drifting zones)
 - Vessel speed/size
 - Automatic Identification System (AIS) in the community
 - Marine Environment Working Group (MEWG)
5. Open discussion:
 - Lessons learned from 2018 shipping season
 - Recommendations for 2019 shipping season
6. Workshop wrap-up and next steps