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አዲስ (2021 DNLUP)**

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2275 Upper Middle Road East, Suite 300 | Oakville, ON, Canada L6H 0C3
Main: 416.364.8820 | Fax: 416.364.0193 | www.baffinland.com

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cc: LAL^a ጋረፍ-ዘጋረፍ (ፈጽሞ)
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October 8, 2021

Sharon Ehaloak
Executive Director
Nunavut Planning Commission

Re: Written Comments on 2021 Draft Nunavut Land Use Plan (2021 DNLUP)

Dear Ms. Ehaloak,

Further to the Nunavut Planning Commission (NPC)'s notice of September 15, 2021, Baffinland Iron Mines (Baffinland) is pleased to provide its enclosed preliminary comments on the 2021 DNLUP.

Baffinland appreciates the hard work by NPC and its staff as well as the participants in the land use planning process that is reflected in the 2021 DNLUP and the 2021 Options and Recommendations document, however, we do have serious concerns with the substance of the Plan, as well as the overall timeline and next steps proposed to issue a final Nunavut Land Use Plan (NLUP) to the signatories.

From a procedural perspective, Baffinland is accustomed and equipped to participate in expedited review processes as a matter of operational need, however, the commencement of the 2021 DNLUP was not anticipated and exceptionally brief relative to the gravity of the Plans implications, and need to have it completed. The inclusion of additional Limited Use areas and Conditional Use requirements not present in previous iterations of the Plan, specifically those driven by submissions by the Qikiqtaaluk Wildlife Board (QWB), require additional technical discussion and analysis not suitable for a Public Hearing context. The uncertainty associated with only committing to scheduling Public Hearings in the Qikiqtani Region subject to funding is also a significant procedural concern.

If the 2021 DNLUP advances in its current form it will have significant generational consequences for the future of the North Baffin where Baffinland operates, and Nunavut more generally. In the attached submission, Baffinland has focused its comments on the following key topics that it has identified in relation to our exploration and production projects:

- Designation of "Limited Use" areas within the DNLUP for areas identified by the QWB as potential caribou calving and post calving areas;
- Requirements for "ice bridging" plans, which as explained further in the attached is not a suitable general requirement as it may not be appropriate or feasible in all circumstances;
- Confirmation of protection of existing rights that would permit mineral tenure holders to explore, develop and advance validly held Crown and Inuit Owned Land tenures;
- Clarification respecting a reference to land use restrictions within the pending Tallurutiup Imanga National Marine Conservation Area; and
- Clarification respecting land use restrictions within the Mary River Transportation Corridor.

Baffinland notes that its focus on these topics is a function of the time available for review, and the issues most evidently pressing with respect to the Mary River Project. Baffinland has also taken part in meaningful discussions with the Chamber of Mines and is supportive of the issues they raise as a general concern to the mining industry in their submission. Baffinland is continuing to review the 2021 DNLUP and may identify further issues and or questions. In the interim, the lack of commentary on other topics in the Plan does not necessarily mean that Baffinland does not have concerns or is in agreement with the approach.

Baffinland appreciates the continued efforts of the NPC and all participants in the land use planning process to develop a Nunavut Land Use Plan in accordance with the Nunavut Agreement. Baffinland reiterates its commitment to participation in this process, and looks forward to continued engagement opportunities.

Regards,

A handwritten signature in black ink, appearing to read "Lou Kamermans".

Lou Kamermans
Senior Director – Sustainable Development
Baffinland Iron Mines

Cc: Megan Lord-Hoyle (Baffinland)
Rosanne D’Orazio, Jared Ottenhof (QIA)
Ken Armstrong, Scott Trusler (Chamber of Mines)

Attachments

Attachment 1 – Mary River Project - Existing Rights

Attachment 2 – Mary River Project – Caribou Calving Areas

Attachment 3a – General Socio-Economic and Fiscal Benefits of the Mary River Project

Attachment 3b – Community Specific Benefits of the Mary River Project

Attachment 4 – Canadian Ice Service Charts for Steensby and Milne Shipping Routes, Last 15 Years

Comment ID	2021-01
Subject	Caribou Calving Areas
References	2021 DNLUP Section 2.2, Plan Requirement 2.2.2-1 2021 DNLUP Map A1 2021 DNLUP Map A2, Item 25
Summary of Plan Requirement:	
<p><i>2.2.1-1 The caribou calving areas shown on Map A are Limited Use areas within which the following incompatible uses are prohibited:</i></p> <p><i>(a) oil and gas exploration and production;</i></p> <p><i>(b) mineral exploration and production;</i></p> <p><i>(c) quarries;</i></p> <p><i>(d) hydro-electrical and related infrastructure;</i></p> <p><i>(e) wind turbines for electrical generation that are over 15 m in height and related infrastructure; and</i></p> <p><i>(f) linear infrastructure.</i></p> <p><i>2.2.1-2 Project proponents must cease all uses at those sites, except research and tourism related to caribou conservation, during the dates identified in Table 2: Caribou Seasonal Restrictions. [See Map A and Table 2 – Site # 2-6, 16-37]</i></p>	
Technical Comment and Supporting Rationale	
<p><u>Key Points:</u></p> <ul style="list-style-type: none"> • NPC based the Baffin Island caribou calving and post calving polygons on new information submitted by the Qikiqtaaluk Wildlife Board (QWB), which has been subject to limited technical review, and does not appear to consider other sources of existing information, both scientific and IQ, which have become available since 1998. At this time there is disputably low consensus in the polygons included in the 2021 DNLUP. • Based on our understanding from Inuit Qaijimajatuqangit (IQ) that has been shared with us by knowledge holders as well as western science derived from our extensive assessments and monitoring programs, geographic-area based land use prohibitions may not be the most appropriate or effective protection for Baffin Island caribou. Mobile protection measures are already applied at Mary River and will be advanced in sync with the return of North Baffin caribou, to protect them when and wherever they happen to be located. • Given the uncertainty in the geographic areas identified, the behavioural nature of Baffin Island caribou, and the merits of mobile protection measures, the currently designated “Limited Use” areas are an unnecessary restriction on land uses that are already regulated and managed with existing protection tools, including the management of Inuit Owned Lands by the Qikiqtani Inuit Association (QIA) in accordance with their stringent land use policies. <p><u>Introduction</u></p> <p>Our understanding based on the 2021 O&R is that certain areas that are designated “25” on Map A of the 2021 DNLUP were selected by NPC on the basis that they were identified in a short document titled “Community Areas of Interest – Caribou Calving and Post-Calving” dated Nov. 26, 2018 and submitted by the QWB and the Hunters and Trappers Organizations of Grise Fiord, Resolute Bay, Arctic Bay, Pond Inlet, Pangnirtung, Iqaluit, Kimmirut, Cape Dorset, Hall Beach and Igloolik (the QWB Nov. 2018 Submission).</p>	

The QWB Nov. 2018 Submission relies mainly on IQ presented in a 1998 publication of calving areas on southern Baffin Island (Ferguson et al 1998), without a comparable consideration of scientific knowledge, or IQ collected by other Parties in the same area since that time. As stated in the **QWB Nov 2018 Submission**:

"In August and October 2018, the QWB completed applications to the Government of Nunavut (GN) to directly use caribou telemetry data from 1987-1995 on Baffin Island and from 2003-2006 for Peary caribou, to combine that information with IQ to delineate calving and post-calving areas. The GN has not approved QWB's applications. In 2016, the GN gave the QWB some maps of calving and post-calving/summering areas on Baffin Island based on telemetry data. However, the GN apparently have added about 10 km around telemetry locations. Although the GN's 2016 maps generally agree with Inuit Qaujimajatuqangit (IQ), the mapped areas are too large. As a result, the QWB has relied mainly on IQ to map calving and post-calving areas, as described below."

Baffinland respects the knowledge and information that is conveyed in the QWB Nov. 2018 Submission. The QWB submission represents an opportunity for industry and government to learn about IQ, views, solutions, and wisdom from knowledge holders. We understand from the submission that the QWB is also interested in hearing more about scientific perspectives on these topics, but to date do not feel they have had access to this information.

More detailed methods from the Land Use Planning Workshops held by QWB from July 2017 to May 2018 should be provided to allow NPC and participants to understand better the perspectives, knowledge and advice that was shared. We understand that these workshops consisted of local focus groups comprised of elected HTO Directors, plus 1–3 local experts selected by the HTO Board. We also understand there was group-directed mapping and listing of values and restrictions; however, the mapping and verification process scale is not summarized in the document. It is not clear whether workshop participants were made aware of the potential negative consequences of prohibiting activity in the designated areas, QIA and Inuit priorities to develop Inuit Owned Lands, or presented with any information on mitigation measures that have been successfully developed in collaboration with Inuit and western science experts and applied to mineral exploration and development projects in Nunavut. It appears that the recommendations were made based on the understanding that mineral exploration and production could otherwise proceed in an unmanaged and unmitigated fashion – as described further below, this does not reflect the current situation in Nunavut or on Baffin Island.

Our comments below identify concerns about the current proposed "Option 1 Limited Use" designation based on the information provided in the QWB Nov. 2018 Submission. We suggest a path forward that could help build a better information base on this topic for consideration in future concerning the approved NLUP. In the interim, however, we recommend it is appropriate for NPC to re-designate these areas as "Option 4 Information on Valued Components (VCs)" in the next iteration of the DNLUP.

NPC Rating Criteria on Defining Geographic Boundaries

NPC indicates in the 2021 O&R document that as part of their rationale for each recommended land use designation, they account for the following factors in rating the degree of confidence in the geographic boundaries of an area or specific habitat type:

- The scale and precision with which boundaries can define the area;
- Whether the information is current; and
- The level of consensus among participants regarding confidence and accuracy of the boundaries and whether participants had the opportunity to comment on the boundaries.

It is challenging to precisely geographically define the areas that Baffin Island caribou use for calving and post-calving. The QWB Nov. 2019 Submission is consistent in many respects with what Baffinland has heard from knowledge holders since it began organizing formal IQ workshops in 2008. Based on IQ that has been shared with Baffinland by knowledge holders and scientific research, we understand that rather than assembling in large groups, calving females can be dispersed through the landscape in higher elevation areas to give birth. Like the QWB stated, we had also heard about how the land 'shines' in the sun during calving because females' placentas lay on the ground after birth and how the females and calves use areas for weeks after calving.

As we heard from knowledge holders, the QWB Nov. 2018 submission also acknowledges that Baffin Island caribou do not aggregate:

"Dense post-calving aggregations do not occur on Baffin Island and in the High Arctic, even during periods of high abundance. Because of their adaptations to their variable environment, the concept of "calving herds" is not applicable to Qikiqtaaluk, Peary and northern Melville Peninsula caribou."

Based on this statement, it is unclear how geographic based approach to caribou protection is optimal over a wildlife based approach, that could target individual locations and caribou when and as needed.

Some inconsistencies have been identified between the information presented in the QWB Nov. 2018 Submission and information provided by other participants. As an example, the QIA has suggested that they have relevant information in their internal IQ database that may conflict with some of the areas identified (see QIA Submission to NPC of May 2019). As acknowledged in the QWB Nov. 2019 Submission, available GN data (for reasons out of their control) has largely not been taken into account. We also have identified some inconsistencies with information that has been shared with us. Much more collaborative work is required to increase confidence in the accuracy of the geographic areas proposed, as well as the most effective approach to protect caribou that may use these areas.

Based on the information presented to date, the lack of consensus regarding the accuracy of the scale and precision of boundaries, there is low consensus and by extension confidence attributed to Baffin Island Caribou calving and post-calving areas identified as "25" in the 2021 DNLUP. The areas are newly designated in the 2021 DNLUP and were not included in previous iterations of the DNLUP. The information was provided to NPC in Nov. 2018, and was never subject to a workshop or other comment and response period. Baffinland acknowledges there was a general comment submission period in 2019, however, there does not appear to have been space for parties to respond to comments, representing a lost opportunity to advance the NPC's understanding of a specific issue like this. As such, the areas proposed in the QWB Nov. 2018 Submission have not been subject to sufficient opportunities for discussion, review and comment by interested parties to support their inclusion as "Limited Use" areas in the 2021 DNLUP.

Ratings on Potential for Non-Renewable Resources, Transportation and Linear Infrastructure

NPC indicates that it accounts for factors relating to development potential when considering land use designations.

The Mary River Transportation Corridor is critical to the future of the Mary River Project, as are the yet to be developed iron ore deposits and prospects dispersed around the North Baffin. The proposed “Limited Use” land designations included in the 2021 DNLUP surround the Mary River Transportation Corridor in several areas, and overlap existing mineral tenures planned for future development (See Attachment 2). These Limited Use areas for caribou calving all serve to greatly reduce the flexibility Baffinland has to access and develop additional deposits as required to extend the Mary River Projects mine life.

As emphasized by QIA, the new Limited Use areas also overlap Inuit Owned Lands that are already administered per Inuit-developed policies that ensure that development proceeds in a manner that is protective of the environment and beneficial to Inuit, taking into account Inuit values and priorities. It is not by chance that Deposits 2-5, the next most viable deposits for production are all located on Inuit Owned Lands (See Attachment 2). Inuit understood the value of these areas when they were selecting land parcels as part of the negotiation of the Nunavut Agreement, and that must be reconciled against the prohibitions that are being proposed in the 2021 DNLUP.

Ratings on Sensitivity to Impacts

NPC indicates that it takes into account factors relating to sensitivity to impacts when considering land use designations.

The QWB Nov. 2018 submission suggests that exploration and development cannot be effectively mitigated in any of the areas identified during decades when their abundance or density is low. It is not clear, however, what QWB is basing these conclusions on, as our understanding is that they did not submit an analysis of mitigation measures, and they currently have limited involvement in the development, implementation or monitoring of project mitigations as a part of their regular operation. The QWB has four primary obligations as outlined on their website:

- The regulation of harvesting practices and techniques among the members of HTOs in the region, including the use of non-quota limitations;
- The allocation and enforcement of regional basic needs levels and adjusted basic needs levels among HTOs in the region;
- The assignment to any person or body other than an HTO, with or without valuable consideration and conditions, of any portion of regional basic needs levels, and;
- Generally, the management of harvesting among the members of HTOs in the region.

We respect the expertise of the QWB on matters within its jurisdiction but suggest the development and evaluation of specific mitigation and other management measures is more appropriately explored and committed to through impact assessment process, administered by the Nunavut Impact Review Board (NIRB). At that stage the specific circumstances of the project and merits of the proposed management measures can be taken into consideration and more meaningfully be discussed and developed through a collaborative process that includes proponents, government,

Regional Inuit Associations, Hunters and Trappers Association and individually interested members of the communities.

Baffinland has engaged with knowledge holders to ensure that we have direction from Inuit regarding where caribou may or may not calve within the Mary River Project Area. We also discussed what the risks of project activities may or may not be to calving and post-calving caribou. Knowledge holders that participated did not present any universal agreement about the impacts of exploration and development on caribou or suggested that project activity should be prohibited in areas where caribou are known to calve.

With workshop participants that included elders and active harvesters, we developed mitigation measures to ensure that caribou can continue to calve in those areas outside of the direct impact of the project footprint. Mitigation actions include directives to not increase activities in areas where caribou are calving during the calving season. These mitigation measures and others are reflected in the Mary River Caribou Protection Measures, developed collaboratively with the QIA, and are integrated into the Project's Terrestrial Environment Mitigation and Monitoring Plan.

Baffinland's stringent caribou protection measures are required by the Mary River Project Certificate, the North Baffin Regional Land Use Plan, as well as its Commercial Lease and other agreements with the QIA. Baffinland has and will continue to evolve its caribou mitigation and monitoring for the life of the mine with the guidance of both the Mary River Terrestrial Environment Working Group and local Inuit knowledge holders. Baffinland and the QIA have continued to review the Mary River Caribou Protection Measures concerning the Phase 2 Proposal and will agree on important improvements to account for a modified project should Phase 2 be approved.

Conclusion

Our monitoring work and results provide Baffinland with confidence that it is possible to develop effective mobile protection measures based on IQ and science. Mobile protection measures should be developed in collaboration with Inuit, and this is an approach we are following at our project. Even if the location of geographic areas for Baffin Island caribou could be defined with more confidence, we would continue to be concerned about the effectiveness of an area-based rather than a wildlife-based approach to species protection.

Recommendation

1. Baffinland recommends that the caribou calving areas in the North Baffin currently proposed as "Option 1 — Limited Use" (25) on Map A should be revised and re-designated in the NLUP as "Option 4 – Information on Valued Components (VCs)".

This approach acknowledges geographic areas that the QWB Nov. 2018 Submissions identify as important to caribou, ensures that proponents and regulatory authorities would be made aware of the importance of the sites, and that the NPC would consider this information when determining whether there are potential cumulative impact concerns regarding project proposals.

2. While the QWB Nov. 2018 Submission presents an important perspective, more work is needed before its recommendations respecting geographic boundaries are included and attached to specific requirements or prohibitions. Baffinland recommends that the NPC establish a further focused and formal opportunity for individual Inuit, Inuit organizations,

Institutions of Public Government with expertise on mitigation and monitoring measures, communities, regional wildlife boards, HTOs, the Government of Nunavut, technical advisors and industry representatives to work together to share their respective information and knowledge on the topic of caribou calving and post calving in the Qikiqtani Region. Baffinland further suggests that this process must not occur within the bounds of the timeline to develop the first generation NLUP. The additional work required to better understand North Baffin caribou is extensive

3. Baffinland recommends that the NPC give greater weight to and recognition of mobile caribou protection measures, should it apply a Limited Use or Conditional Use designation to caribou calving grounds located in the North Baffin. The NPC has been in receipt of the jointly developed Mary River Caribou Protection Measures since 2014, and Baffinland is confident that its monitoring programs will support the effectiveness of the mobile protections contained within and evolved from that submission.

Generally speaking, exploration, production and related linear infrastructure projects are subject to the rigorous NIRB process established by the Nunavut Agreement and federal and territorial legislation before project approval. Projects located on Inuit Owned Lands would also be subject to restrictions included in tenures issued by the landowner, which are developed in accordance with Inuit values and priorities. These post land use plan conformity processes are more than appropriate forums to develop location and wildlife specific management plans that balance the goals of Inuit Owned Lands, the need for environmental protection, and the practical requirements of industry.

Comment ID	2021-02
Subject	Existing Rights
References	2021 DNLUP, Section 6.1.8 Nunavut Land Claim Agreement Nunavut Planning and Project Assessment Act Nunavut Mining Regulations (Territorial Lands Act) Exploration and Mining on Crown Lands in Nunavut Guidebook Free Entry Access to Mineral Rights in Canada's North Yukon Free Entry System FAQ's Dehcho Land Use Plan Sahtu Regional Land Use Plan
Summary of Plan Requirement:	
<p><i>6.1.8-1 A mineral exploration and production project previously approved under the Nunavut Planning and Project Assessment Act or the Agreement and identified in Appendix A is exempt from prohibitions on mineral exploration and production in Limited Use areas when the project undergoes a significant modification if:</i></p> <p><i>(a) it is arising from and related to existing rights and interests identified as projects in Appendix A; and</i></p> <p><i>(b) it remains within the same footprint of the project identified in Appendix A.</i></p> <p><i>6.1.8-2 To demonstrate a project is arising from, and related to, existing rights and interests, a proponent must demonstrate a direct connection to a project listed in Appendix A.</i></p> <p><i>6.1.8-3 For clarity, a change in ownership of a project identified in Appendix A, or in the ownership of the proponent, does not itself constitute a significant modification to the project.</i></p> <p><i>6.1.8-4 If there is no demonstrated direct connection to a project identified in Appendix A, the modification will be considered to be a new project and be subject to the prohibitions in this Plan.</i></p> <p><i>6.1.8-5 All other requirements in the land use designation of a project identified in Appendix A, including the prohibition on breaching any applicable restrictions, continue to apply to the project after a significant modification is made.</i></p> <p><i>6.1.8-6 The construction of permanent all-season linear infrastructure in an area outside the footprint of a project identified in Appendix A is not authorized if that type of project is prohibited in that area.</i></p>	
Technical Comment and Supporting Rationale	
<p>Baffinland maintains significant mineral tenure in the North Baffin region as outlined in Attachment 1, which is a figure showing Baffinland's various mineral tenures in the North Baffin in relation to those acknowledged in the 2021 DNLUP. The 2021 DNLUP now proposes to designate multiple Limited Use areas under Plan Requirement 2.2.1-1 (caribou calving grounds) overlapping with Baffinland's existing mineral tenures. See Attachment 2, which includes a figure outlining the overlap in Baffinland's mineral tenure and the new Limited Use areas.</p> <p>Baffinland has provided its comments below to outline precisely how the 2021 DNLUP proposal would negatively impact Baffinland's existing mineral tenure rights, and how the 2021 DNLUP could be revised to avoid that outcome.</p>	

Summary of Financial Contributions of Baffinland to Nunavut and Canada Economy arising from its exercise of existing mineral tenure rights at Deposit 1 to date and forecast into the future

The Mary River Project has provided significant direct benefits to Inuit, communities and governments through the initial development of Deposit 1. These benefits, as well as those forecast to occur under the full development of the Project and the implementation of the Inuit Certainty Agreement, are summarized in Attachments 3a and 3b. Some highlights, current to 2020, are provided here for quick reference:

- Provided over \$80 million in wages to Inuit Project Employees;
- Reached over \$1.3 billion in contracts signed and awarded to Inuit Firms;
- Provided over \$1.1 million through our Sponsorship and Donation Program since 2016;
- Seen 495 graduates of pre-employment training programs; and
- Delivered over 150,000 hours of training to Inuit Project employees since Project development.
- Over \$53 million in fuel and payroll taxes to the Government of Nunavut
- Over \$66 million paid to the Qikiqtani Inuit Association in advance and royalty payments and commercial lease payments
- In 2019 alone, Baffinland contributed \$724 million to Nunavut's Gross Domestic Product

Should the full Project be developed, inclusive of Phase 2 and Steensby, Baffinland expects to provide the following fiscal benefits:

- \$1 billion to the Qikiqtani Inuit Association in IIBA Royalties
- \$1.4 billion in a federal mineral royalty to Nunavut Tunngavik Inc
- \$1.5 billion in taxes to the Government of Canada
- \$670 million in taxes to the Government of Nunavut

Contribute significant funds or build directly the following community infrastructure in the 5 affected communities under the full Project, inclusive of Phase 2 and Steensby:

- \$3 million towards day cares in Sanijarak, Igloodik, Pond Inlet, Arctic Bay and Clyde River, as well as Kinngait and Kimmirut once Steensby is built
- Build and operate community garages, or similar projects that fill critical community service or infrastructure gaps, and the 5 North Baffin communities
- Build Baffinland offices in each North Baffin community that will include additional space for meetings and training, as well as an elder's lounge area
- Each North Baffin community will receive a research vessel over a 15-year period
- \$10 million towards a Pond Inlet training and research centre

The current and proposed benefits to Inuit, communities and governments from the development of Deposit 1 at Mary River are significant, and consistent with the intention behind the selection of Inuit Owned Lands in the Nunavut Agreement. Baffinland has identified up to 8 other promising iron ore deposits, and many more prospects. While the benefits highlighted above and summarized in Attachment 3 are substantial, it will require the continued development of additional deposits to continue to provide them for the generations that are anticipated. As the 2021 DNLUP is currently written, the multigenerational potential of the Mary River mine is impacted through the imposition of additional Limited Use areas and treatment of existing rights.

Key definitions remain unclear

It is unclear what constitutes ‘arising from and related to’ or a ‘direct connection’ when it comes to determining what existing rights may be exempt from prohibitions on mineral exploration and production in Limited Use areas. Baffinland has developed the following case study to illustrate the lack of certainty presented by the current wording of Section 6.1.8 of the 2021 DNLUP. To be clear, this should be treated as an illustrative case study only as at this time Baffinland is not contemplating any significant applications to NPC or NIRB with respect to the Rowley River Prospect.

The Rowley River Prospect is one of many Baffinland-owned iron ore prospects in the North Baffin that is planned to contribute to the multi-generational life span of the Mary River Project. This future development prospect was identified in the Mary River Final Environmental Impact Statement (2012), and so we are proceeding on the understanding that this prospect would come within the scope of the existing rights protections described at Section 6.1.8-1 of the 2021 DNLUP. However, the Rowley River Prospect is now located within a Limited Use area in the 2021 DNLUP Map A (See Attachment 2).

Despite the many provisions in Section 6.1.8 of the 2021 DNLUP, ultimately whether or not the Rowley River Prospect would be possible to progress from its current grass roots exploration stage into a producing mine is entirely subject to the strength of its perceived ties to existing approvals under the Nunavut Agreement or NuPPAA at the time of a significant modification proposal.

The Rowley River Prospect is currently a combination of mineral claims and a mining lease, but as outlined in the 2012 FEIS, we hope to advance it to the production stage in future. Given the equidistant proximity of the Rowley River Prospect to tide water on the west side of Baffin Island, and the South Railway to the east between Mary River Deposit 1 and Steensby Port, there are several plausible development paths Baffinland could take to develop the same resource that could lead to two different determinations with respect to the direct connection to the existing Mary River Project. It is not at all clear at present what criteria NPC would use to make a determination about whether either Rowley River Prospect development option is “arising from and related to” or “directly connected” to the Mary River Project. In our view, Rowley River should be considered “arising from and related to” the Mary River Project in either scenario, because it would be impossible to develop it as an independent project – it would be necessary for the project rely at least in part on some existing Mary River infrastructure. The need for a new Port on the west side of Baffin Island does not change that fact. Similarly, proposing to connect the Rowley River Prospect to the South Railway in our view would be a “direct connection”.

If NPC does not provide further guidance and clarity on the intended meaning of these key terms, for planning purposes proponents would need to assume the only option would be to apply for an amendment to the NLUP – a process which also lacks some clarity. We do not believe this is what NPC intended.

Existing Rights should include mineral tenure

The 2021 DNLUP continues to rely on Nunavut Planning and Project Assessment Act (NuPPAA) transitional provision (Section 235) to define its own treatment of existing rights, without any consideration for mineral tenure. Under the proposed regime, only a project that has been “previously approved” under NuPPAA is entitled to existing rights. While there does now appear to be some circumstances under which a project may be considered a significant modification and still maintain its existing rights, the Plan requirements are both ambiguous and limited in their scope.

Uncertainty and exclusion of the full spectrum of existing rights is a major problem for Baffinland and other developers that have acquired mineral rights in the Nunavut Mining District under a free entry system and developed projects while exercising those rights that may now be prohibited or significantly restrictions. Without reasonable rights protections developers like Baffinland could lose the value of their investments in their entirety, investments that are in part obligatory requirements to have kept our mineral tenure in good standing up to the date of implementation of the NLUP

Can the Plan deviate from NuPPAA?

The detail and direction included in Section 235 of NuPPAA is what outlines the circumstances in which the Act does, or does not, apply to a given project. In any case, a project proposal is subject to a conformity determination by the NPC and if referred by NPC or otherwise required by NuPPAA, screened and/or reviewed by the NIRB. Where there may be some misunderstanding, however, is that the substance of the land use plan used by the NPC to issue its conformity determination does not necessarily have to be bound by the same principles that govern the application of NuPPAA. In other words, if a land use plan is designed to recognize a broader range of existing rights than what is provided for in the NuPPAA, that is the prerogative of the plan designers and does not in any way preclude the application of the plan, or the Act, to a project, consistent with Section 235.

Should the Plan deviate from NuPPAA?

Baffinland and other industry members have made significant investments in Nunavut's mineral exploration and mining sector and there are many reasons to provide assurances that will reasonably protect those investments. Of critical importance is that proponents with mineral tenure in Nunavut have acquired it under a free entry system in relation to Crown tenures or through negotiation with Inuit mineral tenure holders (Nunavut Tunngavik Inc (NTI)) who own the minerals.

Under the free system a proponent may enter lands where minerals are owned by the Crown and oblige them to grant exclusive exploration and development rights, if they are applied for in the prescribed manner. In order to keep tenure in good standing proponents are expected to carry out work that meets mandatory minimum spending requirements. The rationale behind the free entry system is that it allows government to share the immense task of discovering and defining its mineral resources with the private sector, allowing significantly more progress than would otherwise be possible.

While NTI's approach to granting mineral tenures on IOL is slightly different from the Crown system, again these agreements are entered into by NTI and proponents with the intent that the lands proceed to development. Stringent requirements are included in the NTI tenure agreements to reflect Inuit policies and goals respecting development. Similar to the Crown system, proponents must carry out minimum work on the property to keep it in good standing. As NTI has indicated on numerous occasions, the lands selected by Inuit negotiators for subsurface IOL ownership under the Nunavut Agreement were selected with the significant promise of future mineral development in those areas in mind.

The important thing to note is that every project, which has been initiated in Nunavut in the exercising of legitimately acquired mineral tenure, has occurred with the intent and hope to eventually extract and sell the minerals, bar none.

The activities required to exercise the rights granted through title are typically subject to strong Crown and or Inuit surface tenure requirements as well as environmental permitting and regulations before the rights can be exercised. It is for these reasons that land use plans can provide accommodations with the assurance that land owners, regulators and the public will continue to be involved in the development of a project prior to and after final approvals are received.

Both the Dehcho Land Use Plan and the Sahtu Regional Land Use Plan have adopted this approach; the two geographically closest land use plans to Nunavut. Baffinland's suggestion is that NPC should consider the use of a system most similar to those included in the Sahtu and Dehcho Land Use Plans, developed under the *Mackenzie Valley Resource Management Act*.

Sahtu Land Use Plan

Section 2.5 'Plan Exemptions' includes a broad spectrum of 'legacy land use' definitions, which may be continued or undertaken despite any nonconformity with the Plan. Of particular interest is subsection 1.2 that identifies "land uses for which authorizations are required in order to exercise rights created by or pursuant to a disposition of interests or entitlements that were issued by the Crown", and includes, among other things, prospecting permits, mineral claims, and mineral leases. Subsection 1.4 provides further reach by including "land uses for which authorizations are required that are necessarily incidental to the exercise of rights created by the interests or entitlements identified in 1.2." Pursuant to subsection 3 these identified 'legacy land uses' are effectively exempt from any applicable zoning, including Conservation Zones and their associated land use prohibitions (Sahtu Regional Land Use Plan, Page 23).

Dehcho Land Use Plan

The Dehcho Land Use Plan includes a similar notion of existing rights to the Sahtu Regional Land Use Plan through the recognition of successor rights. Successor rights are described as stemming from "existing rights present on the day prior to Plan approval, and includes expansions in area of use that are reasonably necessary to enable the existing use to continue, even if the land uses do not conform to the zoning or other Conformity Requirements of the Plan" (Dehcho Land Use Plan, Page 3)

Consideration for the Nunavut Context

Baffinland proposes that an approach to existing rights similar to the two NWT land use plans described above for Nunavut is not only reasonable, but desirable. This system should recognize all stages of existing mineral tenure under both the Crown and Inuit Owned mineral tenure systems, as well as the expansion of activities reasonably necessary to move through the full spectrum of the mining cycle, as was expected when mineral tenure was initially sought and granted.

To be clear, a system in the Plan that recognizes a broader spectrum of existing rights, including mineral tenure, would not exempt a project from rigorous scrutiny and the application of stringent mitigation measures as are considered appropriate through a transparent and comprehensive public review process. The screening, review and reconsideration processes for projects administered by the NIRB is designed to consider the significance of project level and cumulative impacts as well as any existing public concern in forming any recommendation to the Minister.

Resources with existing rights may be stranded by restrictions in the same and adjacent Limited Use Areas where necessarily incidental activities (such as transportation and access) are restricted that would occur outside of the existing Project footprint

As proposed, Section 6.1.8 of the 2021 DNLUP would continue to limit the incidental activities necessary to develop projects otherwise qualifying for existing rights. This approach could effectively land lock many existing rights of mineral tenure holders, as it is impossible to proceed to production mining without reliable land and marine access. This is particularly true in Nunavut, where the 2021 DNLUP readily acknowledges that there is a fundamental lack of infrastructure.

Continuing to use the Rowley River Prospect as a case study, it is located inside a proposed Limited Use area designated in the 2021 DNLUP for caribou calving. Any linear infrastructure, including an all-weather access road or railway, would extend outside of the footprint of the Rowley River Prospect as currently recognized by the Plan and into the surrounding Limited Use area. Further, to connect to the South Railway between Deposit 1 and Steensby Port, there is another Limited Use area designated for caribou calving that now surrounds a portion of the South Railway and could impede the only technically and/or economically feasible route between the prospect and existing infrastructure. The outcome is effectively the same as if no existing rights were recognized for the Rowley River Prospect in the first place. Surrounded by other Limited Use areas where necessarily incidental activities are limited, only a Plan amendment or exemption would allow the Project to move forward.

The objective of recognizing existing rights is to provide reasonable assurance to proponents with projects that meet the criteria for existing rights, to fully develop their project, subject to all other commercial, environmental and regulatory requirements that otherwise apply. Even though the 2021 DNLUP suggests it recognizes Baffinland's existing rights within newly proposed Limited Use Areas, there is no assurance any of those Projects could be developed without requiring a Plan amendment. This issue is amplified by a lack of consideration for necessarily incidental activities that may be required to develop Projects in the vicinity of Limited Use Areas.

Recommendation

1. Expand existing rights protections to explicitly include mineral tenure. The Plan Requirements should, at a minimum, be explicit about Nunavut's classes of mineral rights (Crown or NTL owned) and the land use activities that are necessary to exercise those rights, which may be exempt from the Plan, but not NuPPAA.
2. Allow necessarily incidental land use activities, such as transportation infrastructure, within Limited Use Areas surrounding Projects qualifying for existing rights.

Comment ID	2021-03
Subject	Proposed TINMCA National Marine Conservation Areas
References	2021 DNLUP 3.1.2, 3.1.2-1
Summary of Plan Requirement:	
<p><i>3.1.2-1 The proposed Tallurutiup Imanga national marine conservation area shown on Map A is a Limited Use area within which the following incompatible uses are prohibited:</i></p> <ul style="list-style-type: none"> <i>(a) oil and gas exploration and production;</i> <i>(b) mineral exploration and production;</i> <i>(c) quarries;</i> <i>(d) hydro-electrical and related infrastructure;</i> <i>(e) wind turbines for electrical generation that are over 15 m in height and related infrastructure;</i> <i>(f) all-weather roads; and</i> <i>(g) disposal at sea.</i> <p><i>[See Map A – Site # 44]</i></p> <p><i>national marine conservation area</i> is a marine area managed for sustainable use and containing smaller zones of high protection. It includes the seabed, the water above it and any species that occur there. It may also take in wetlands, estuaries, islands and other coastal lands.</p> <p><i>proposed national marine conservation area</i> means an area in respect of which the Commission has been notified by Canada that a national marine conservation area is being, or has been, proposed.</p>	
Technical Comment and Supporting Rationale	
<p>Our understanding is that the proposed listed prohibition at Section 3.1.2-1(b) is intended to prohibit <u>undersea</u> mineral exploration and production. If the prohibitions in relation to the TINMCA remain in the 2021 DNLUP, our recommendation is that this prohibition be revised for clarity. Mary River shipping and related Project activities presently occur within certain areas of the boundary planned for the TINMCA, and will continue to occur within the area should the TINMCA ultimately be established by the Government of Canada. There should be no confusion that commercial shipping, marine transportation, and marine-based infrastructure and activities associated with mineral exploration and production activities at Mary River will continue within the TINMCA area during the current period when the TINMCA has not yet been established as well as post establishment (should the Government of Canada do so).</p>	
Recommendation	
<ol style="list-style-type: none"> 1. If the prohibitions pending the establishment of the TINMCA remain, the prohibition relating to mineral exploration and development should explicitly reference undersea mineral exploration and development, to avoid any confusion respecting Mary River related marine transportation and shipping activities as well as marine infrastructure that are occurring within the proposed TINMCA boundaries and will continue to occur in the area should the TINMCA be established. 	

Comment ID	2021-04
Subject	Mary River-Milne Inlet Linear Infrastructure Corridor
References	2021 DNLUP Section 5.3, 5.3.1-2 2021 DNLUP Map A2, Item 95 2021 A&R, Section 5.3.2
Summary of Plan Requirement:	
<p>5.3.1-2 The Mary River-Milne Inlet linear infrastructure corridor shown on Map A is a Limited Use area within which all uses other than the following</p> <ul style="list-style-type: none"> • All weather and seasonal roads • Railways • Seasonal airstrips or ice strips • Quarries • The construction of infrastructure, support facilities and any other related systems associated with the use of the corridor 	
Technical Comment and Supporting Rationale	
<p><u>General</u></p> <p>Plan Requirement 5.3.1-2 refers to the terrestrial transportation corridor between Milne Inlet and Steensby Inlet associated with the Mary River Project as the ‘Mary River-Milne Inlet Linear Infrastructure Corridor’, with reference to Map A – Site #136. Baffinland recommends the name of the corridor be amended to reflect the connection between Milne Inlet and Steensby Inlet, not just between the Mine Site and Milne Inlet. Appendix P of the North Baffinland Regional Land Use Plan (NBRLUP) currently refers to the recognized corridor as the ‘Mary River Transportation Corridor’, which Baffinland believes is appropriate to continue using, unless a more suitable Inuit place name is preferred. Baffinland also notes the corridor is identified as Site #94, not #136, in Map A.</p> <p><u>Defining Geographic Boundaries</u></p> <p>Baffinland recommends the NPC continue to define the Mary River Transportation Corridor in general terms. Using language consistent with Appendix P of the NBRLUP, the terrestrial component of the transportation corridor would be generally illustrated by a line on Map A, generally commencing at Steensby Inlet and running generally north through the Mary River Mine Site towards Milne Port. The approximate coordinates of the ports and mine site should be recognized, consistent with Appendix P, Section 1.3 “Location” as follows:</p> <p><i>The lands generally located North of Mary River, North Baffin Island, 1000 km North of Iqaluit, and described as the line commencing at the Mary River Mine Site, approximately 71.3N-79.22W, and running generally North for approximately 100 km to the Milne Port at approximately 71.53N-80.54W and then running generally North through Milne Inlet and then East through Eclipse Sound to Baffin Bay for approximately 270 km and all as generally illustrated in Map “A” – Site #136.</i></p> <p>Consistent with Appendix P of the NBRLUP, language in the 2021 DNLUP should also be included that states that the location of the Mary River Transportation Corridor as shown on Map A - Site #136 is approximate, and minor adjustments shall not require amendment to the land use plan. The distance between infrastructure (i.e. the Milne Inlet Tote Road and a railway) constructed within the generally</p>	

illustrated Mary River Transportation Corridor should be no greater than 10 km at any point, but the need for reasonable flexibility with respect to infrastructure siting is acknowledged.

Mary River-Milne Inlet Linear Infrastructure Corridor

In the 2021 DNLUP, NPC has designated the Mary River Milne Inlet Linear Infrastructure Corridor as a “Option 1 - Limited Use” (94) that prohibits uses not specifically tied to transportation infrastructure or related activities and systems. This is not required; other uses are not necessarily incompatible with transportation. For instance, the lease boundaries of Baffinland’s Deposits 4 and 5 overlap the portion of the Mary River Transportation Corridor between the Mary River Mine Site and Milne Port (See Attachment 01). It is entirely plausible that should those Deposits be developed into producing mines, mining infrastructure could occur within lands considered to be within 10km of transportation infrastructure, and in this case such mining activity could proceed without interfering with transportation activities within the Mary River Transportation Corridor. The corridor itself should not be a cause for prohibiting that infrastructure from being developed and requiring a Plan amendment. Baffinland suggests that to designate the Mary River Transportation Corridor as a Valued Socioeconomic Component designation, consistent with other existing and potential terrestrial linear infrastructure, would be more appropriate.

Clarification regarding other prohibitions

Based on the 2021 DNLUP, it is our understanding that operation of the Mary River Transportation Corridor is an existing right that is not otherwise subject to the prohibitions in the 2021 DNLUP unless the Project undergoes a significant modification that does not meet the criteria to maintain its existing right status. We request that NPC confirm this understanding.

Recommendation

1. The Mary River Milne Inlet Linear Infrastructure Corridor currently referenced in the 2021 DNLUP should be renamed the Mary River Transportation Corridor (or such other suitable Inuit place name as identified by community members).
2. Baffinland suggests that rather than being designated a Limited Use area, the Mary River Transportation Corridor should be designated as a Valued Socio-Economic Component.
3. Consistent with Appendix P of the NBRLUP, language in the 2021 DNLUP should be included that states that the location of the Mary River Transportation Corridor as shown on Map A-Site #136 is approximate, and minor adjustments shall not require amendment to the land use plan.

Comment ID	2021-05
Subject	On-ice Travel Routes
References	2021 DNLUP Section 4.1.1, Plan Requirement 4.1.1-1 2021 DNLUP Table 3 2021 DNLUP Map Table 3
Summary of Plan Requirement:	
<p><i>4.1.1-1 The on-ice travel routes shown on Map A are Conditional Use areas within which, except as required for safe navigation, a proponent of a project that will disrupt or destroy on-ice travel routes during the seasons of Upingaksaag and Upingaaq set out in Table 3 must consult with all municipal councils, hunters and trappers organizations and regional wildlife organizations within a 300 km radius of the route and develop an ice-bridging plan before undertaking the project.</i></p> <p><i>The 2021 O&R adds:</i></p> <ul style="list-style-type: none"> <i>Proponents must report annually to the NPC on all activities that disrupted or destroyed on-ice travel routes, the consultations undertaken and public awareness measures, and ice-bridging measures undertaken in the calendar year, if any</i> <i>An ice-bridging plan is required before a project may destroy or disrupt on-ice travel routes identified in section 4.1.3 of this document, and contravention of this requirement is prohibited under section 74(f) of the NuPPAA.</i> 	
Technical Comment and Supporting Rationale	
<p>Through the feasibility and environmental assessments related to the Mary River Project, as well as the operation of the Early Revenue Phase, the Production Increase Proposal and the Production Increase Proposal Extension and ongoing exploration, Baffinland possesses significant experience and expertise in the subject of Arctic shipping. We have also consulted knowledge holders, who have generously shared Inuit Qaujimajatuqangit (IQ) with respect to known ice formation patterns and traditional use in the areas in which we ship.</p> <p>Based on information shared with us by knowledge holders and our Arctic shipping technical experts, we believe this plan requirement requires significant revision to support feasible implementation.</p> <p>For the following reasons, we suggest that the plan requirement should be revised to remove the specific reference to an “ice bridging plan” as this is a technical term with a specific meaning that is not generally applicable to all conditions in which shipping through ice occurs.</p> <p>Instead, we suggest the 2021 DNLUP should require proponents to develop a shipping plan prior to undertaking shipping through ice in consultation with Regional Inuit Organizations, municipal councils and HTOs which includes specific mitigations to protect the safety of traditional users and Inuit access for traditional activities.</p> <p>We also believe that the seasonal references reflected in the plan requirement should be revised, based on available data from Canadian Ice Service ice charts.</p>	

Available technical information tends to show that on-ice travel routes do not persist throughout Upinqaaq

According to Table 3 of the 2021 DNLUP, Upingaksaq lasts from April 1 to May 31 in both the North and South Baffin, while Upinqaaq lasts from June 1 to July 31 in the North Baffin, and June 1 to July 14 in the South Baffin. Shipping in support of the Mary River Project occurs in the North Baffin Area via Milne Port and will occur in the South Baffin Area via Steensby Inlet, as identified in Map Table 3.

Breakup and open water dates along the route to the Steensby Inlet and Milne Inlet port sites over last 15 years, based on weekly Canadian Ice Service (CIS) ice charts, are provided as Attachment 4. Several key points from the tables in Attachment XX are included here:

- Fast ice has naturally broken up as early as July 1 along the shipping route to Steensby Port, 14 days prior to the end of Upinqaaq in South Baffin
- Fast ice has naturally broken up as early as July 11 along the shipping route to Milne Port, 20 days prior to the end of Upinqaaq in North Baffin

In the Milne Inlet and Eclipse Sound areas for example, the mean period between fast ice break up and open water is 15 days. As a result, the safety of on-ice travel naturally diminishes very quickly once fast ice is broken and ice that remains becomes mobile and compromised in terms of concentration and thickness. In this time period ice strengthened vessels are required to support transits by lesser ice class, or non-ice class vessels. During these transits its possible large pans of mobile ice may be broken, which could overlap with designated on-ice travel routes shown on Map A during Upinqaaq. At Mary River, shipping activities that begin once fast ice have broken have not interrupted on-ice travel routes as they are no longer being used at that time.

Baffinland ensures it does not conflict with on-ice travel by developing and maintaining a Communication Protocol for Shipping Activities, which includes a commitment to confirm through the Mittimatalik Hunters and Trappers Organization that the floe edge has been closed for harvesting before shipping can commence. More recently the Communication Protocol has been updated to include requirements for working with the Hamlet of Pond Inlet, the MHTO and Community Shipping Monitors (employed by Baffinland) to confirm that the ice in the immediate vicinity of Pond Inlet and the expected ice track is not being used before shipping commences. All parties make a significant effort to ensure ice is no longer being used by Inuit at times when shipping though ice occurs.

Ice-bridging is not a feasible mitigation in all circumstances and ice conditions, and so more general approach to safe travel plans should be used in the NLUP

Based on Section 6.2.7 of the 2021 O&R, the NPC considered a number of submission on the issue of on-ice travel routes, but it does not appear that detailed submissions were made or considered specifically on the feasibility of “ice bridging plans” in relation to all types of shipping through ice. This is a significant information gap.

We agree generally with the submissions of participants that robust plans should be in place before proponents proceed with ice breaking activities in order to ensure the activity proceeds safely and in a way that minimizes potential impacts on Inuit use of sea ice – as described above, this approach is already one we are committed to and follow at the Mary River Project.

However, ice bridging is not the only available mitigation to achieve this goal. Ice-bridging is a very specific mitigation that has had some success at other projects in Canada, most notably Voisey's Bay. This success, however, is highly dependent on the specific circumstances of that Project. The nearest community to Voisey's is Nain, which lies about 15km north of the shipping route where the pontoon bridges are deployed through the winter. This is significant insofar as the infrastructure required for the ice bridges is reasonably close. With respect to ship type and number of movements, there is a maximum of 4 trips (8 transits) per winter season, which are spread out during the period from Late January until Early April, allowing ample intervals for the track to consolidate. Lastly, the track is only ever used by the Umiak, with a beam of 26.5 m and dead weight tonnage (DWT) of 32,000 tons. The vessel has been reasonably successful over the years in remaining within the track due to its size and limited voyages.

Baffinland cannot speak to the suitability of ice bridging mitigations for other shipping activities that may occur in Nunavut in future – however, we can confirm that the notion of a portable ice bridge system (like pontoons) is not considered applicable or scalable to the Mary River Project or Phase 2.

Supporting rationale is discussed further below:

1. **Baffinland takes care not to ship until the MHTO confirms the floe edge is closed and there is confirmation that Inuit are no longer using ice,** therefore it would not be necessary or appropriate in any event to develop an ice bridging mechanism in relation to such activities.
2. **Ice bridging is not possible in mobile ice conditions,** which can exist in the North Baffin and South Baffin during the period of Upingaaq (July). Ice bridges require safe access to areas of deployment, and are intended to link to fixed points over an area where ice has been disrupted. These conditions are not met once fast ice has broken and ice becomes mobile. With respect to Baffinland's shipping season that takes place in Eclipse Sound and Milne Inlet beginning as early as mid-July in a given year, following the breakup of fast ice, a requirement to develop an ice-bridging program would be entirely unfeasible.
3. **Ice bridging programs require reasonable proximity to project or community infrastructure.** Unlike the proximity between the ship track to Voisey's and Nain, the communities (Igloolik and Sanijarak) closest to the Steensby ship track that intercept an on-ice travel route just north of Koch Island are considerably further away at more than 100 km. Even the port site at Steensby lies more than 50 km from the over ice travel route. This is an important distinction as the logistics of setting up any sort of bridging program heavily impacted by proximity to resources, which in the case of Steensby Inlet do not exist.
4. **Ice bridging programs need to consider ship types and frequency of movement.** Winter shipping to Steensby Port will include considerably larger vessels and more frequent transits than what is performed in support of the Voisey's Bay winter shipping program. Shipping to/from Steensby Port in Upingakaaq and Upingaaq could see an average of 10 trips (20 transits) in a month with vessels of a nominal capacity between 160,000 to 190,000 DWT. The combined effect of this larger scale in shipping activities is that the ship tracks will be significantly larger than at Voisey's. The width to which the ship track will grow due to the increased frequency in transits is unknown but with greater distances the technical feasibility and safety of an ice bridging system is severely diminished.

While ice bridging has proved successful at Voisey’s Bay and there may well be suitable individual project applications of this strategy in Nunavut in the future, at Mary River it is either not possible (North Baffin) or unlikely to be feasible, appropriate or necessary (South Baffin) to implement ice bridging mitigations in relation to all shipping through ice. For Mary River, the timing of shipping, distances involved, and the different nature of operations would present significant challenges to implementing Plan Requirement 4.1.1-1 as written, and in any event due to the existing mitigations in place even if feasible ice bridging mitigations would not enhance protection of Inuit use.

On-ice travel with respect to approved or future Projects that include shipping activities during the periods of Upingaksaq and Upingaaq can be accommodated in a manner that is technically feasible, safe and commensurate with the priorities of potentially affected communities. However, a specific requirement for a mitigation like ice bridging, that may not be feasible or even desired by the community, at the land use planning stage does not achieve the intended protections. It would be a much more balanced and reasonable approach to require the Proponent and potentially affected communities to develop a more general Safe Travel Policy prior to the activity occurring. Practically speaking both the Nunavut Impact Review Board assessment processes, as well as negotiation of Inuit Impact Benefit Agreements with Regional Inuit Associations also present appropriate forums to develop detailed and feasible safe travel plans.

Accommodations for on-ice Travel Routes should be subject to targeted consultation

On-ice travel routes should not be identified in Map A without providing clear and specific reference to the information that NPC relied on to include these areas in the plan. It is not clear based on the information provided to date what communities use them and have asked for them to be recognized in the Plan. These communities should be specifically identified in the Plan to help support consultation by the Proponent for the purpose of developing a general safe travel plan prior to construction.

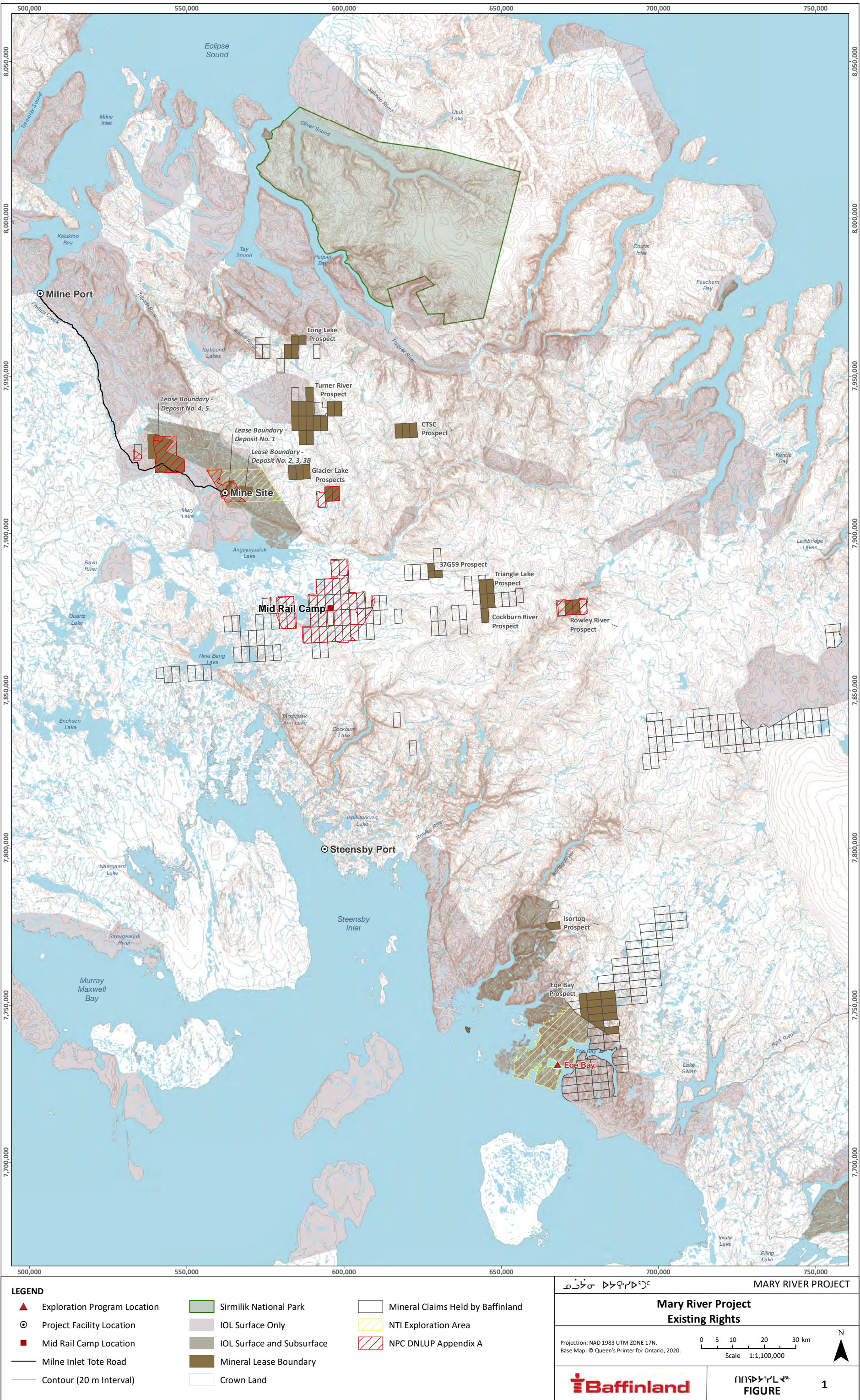
Recommendation

1. Revise the 2021 DNLUP to clarify that the conditional use provision is only required in Upingaaq if shipping is proposed to occur while land fast ice is present.
2. Revise the 2021 DNLUP to replace specific guidance to develop an “ice bridging plan” with a general requirement to engage relevant communities in the development of a Safe Travel Policy. If ice bridging continues to be referenced it should be clearly acknowledged that this mitigation may not be feasible and that alternative mitigations exist, such as development of communication protocols, that would also conform to the NLUP.
3. Revise the 2021 DNLUP to remove blanket requirement for geographic-based consultation with all municipal councils, hunters and trappers organizations and regional wildlife organizations within a 300 km radius of the route, and clarify consultation obligations by specifically identifying communities that have identified that they use the designated on ice travel routes, and requiring proponents to engage with those communities and relevant organizations within those communities that utilize on ice travel routes. To our knowledge, as an organization, regional wildlife organizations do not use on ice travel routes and it is not clear why these organizations are listed in the consultation requirement at this time.

Attachment 1

Mary River Project - Existing Rights

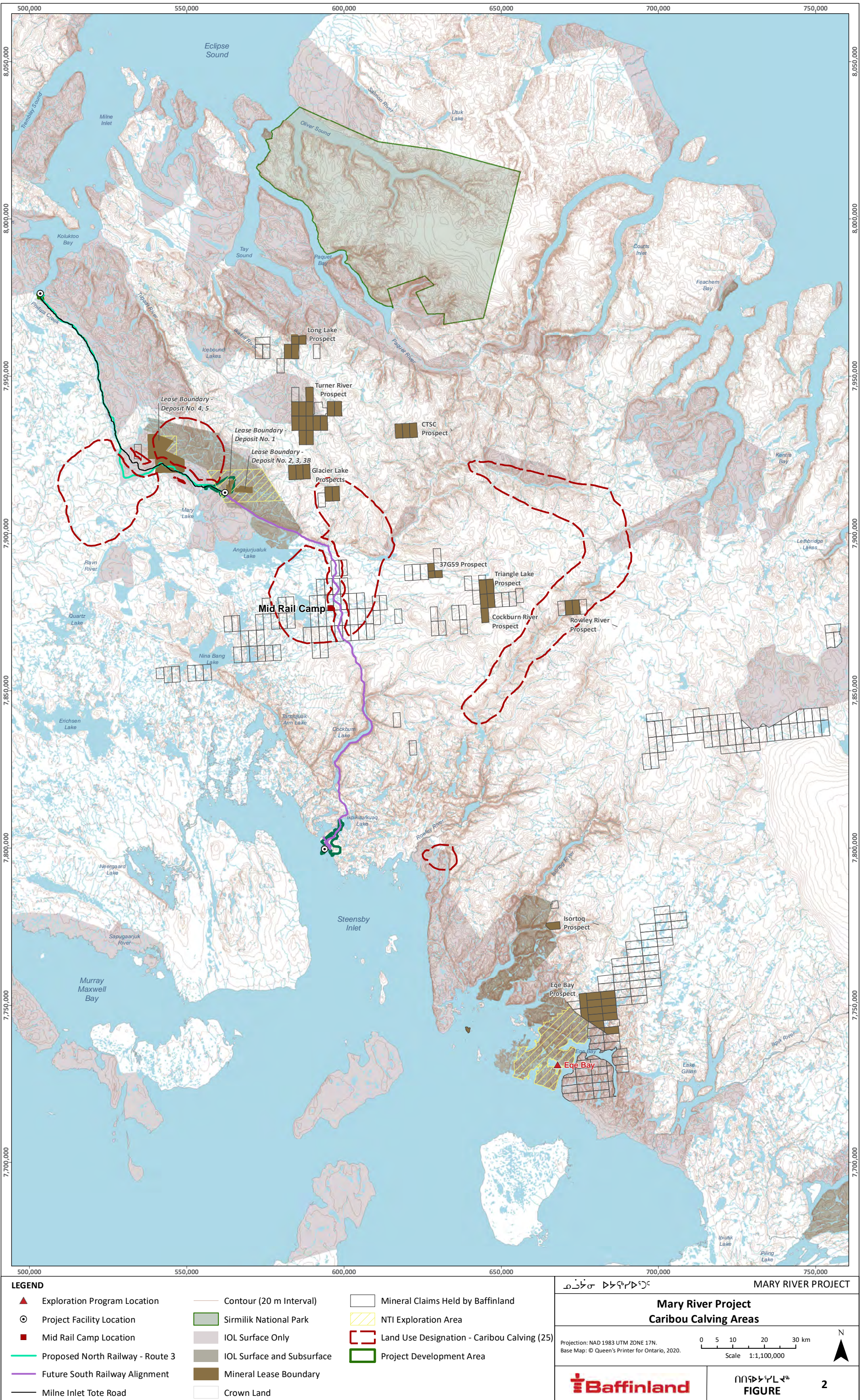
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Attachment 2

Mary River Project – Caribou Calving Areas

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Attachment 3a

General Socio-Economic and Fiscal Benefits of the Mary River Project

MEMO

Fiscal Benefits of the Mary River Project

Important Notes to Readers

The estimations of economic benefits outlined in this memo are based from a point in time on scenarios and hypothesis taking place in future years as outlined in Technical Supporting Document 25 submitted through the Phase 2 Nunavut Impact Review Board led Environmental Assessment for Baffinland as well as from internal Baffinland records. No conclusion or inference should be made based on the content of this report regarding investment or financial decisions about the Mary River Project, Baffinland Iron Mines Corporation (Baffinland), iron ore, the mining sector in general or the Nunavut and Canadian economy.

All monetary values are expressed in Canadian Dollars (CAD)

Introduction

The following memo outlines the fiscal benefits of the 30 million tonnes per year Mary River Project to Inuit Organizations and Governments throughout the life of mine (2038).

Government of Nunavut ¹

Fiscal revenues paid to the Government of Nunavut are paid against the following requirements:

- Payroll Taxes
- Petroleum (Fuel) Taxes
- Corporate Income Taxes
- Personal Income Tax

Baffinland has paid the following to the Government of Nunavut as of September 30, 2020:

- Payroll Taxes: \$32,940,658
- Petroleum (Fuel) Taxes: \$20,744,900
- Total: **Over \$53 million**

Expected payments to the Government of Nunavut over the life of mine (2038):

- Corporate Income Tax: \$321 million
- Territorial Petroleum (Fuel) Tax: \$182.5 million
- Payroll Taxes: \$51.3 million ²
- Other Fiscal Revenues (this includes payments to government by Baffinland suppliers, contractors, and other smaller payments): \$125 million
- Total: **\$679 million**

Government of Canada

Fiscal revenues paid to the Government of Canada are paid against the following requirements:

- Fuel Tax
- Corporate Income Tax

¹ Calculations of projected payments to the Government of Nunavut have not considered the potential implications of Devolution.

² Baffinland future payroll tax payment calculations are based on very conservative modelling scenarios to not overstate payments to Government.

- Aggregate Royalties (Crown Land)

To date Baffinland has made no payments to the Government of Canada against the requirements outlined above.

Phase 2 expected payments to the Government of Canada over the life of mine (2038):

- Corporate Income Tax: \$359.7 million
- Fuel Tax: \$80.2 million
- Aggregate Royalties (Crown Land): \$35.8 million
- Other Fiscal Revenues (this includes payments to government by Baffinland suppliers, contractors, and other smaller payments): \$1.2 billion
- Total: **Over \$1.5 billion**

Inuit Organizations

Nunavut Tunngavik Incorporated (NTI)

Deposit No. 1 is located on grandfathered federal mining leases that have been designated as Inuit surface and subsurface lands. As such, a Federal Mining Royalty (FMR) will be payable to Indian and Northern Affairs Canada (Crown Indigenous Relations and Northern Affairs Canada) under the Nunavut Mining Regulations (Territorial Lands Act), but the monies will be passed to NTI. Resources collected by NTI from FMR are placed in the “Resource Revenue Trust”. Revenues from the operating fund of the Trust are distributed to the NTI and all three Regional Inuit Associations (RIAs) according to NTI’s Resource Revenue Policy (NTI 2011). The revenue from the operating fund is distributed as follows:

- 30% - NTI
- 10% - Regional Inuit Organization (each)
- 40% - Regional Inuit Organization (each, divided on per capita basis)

Mines in Nunavut are required to make annual royalty payments to the Crown based on the mine’s total output during the fiscal year. The royalty payable is the lesser of:

- 13% of the value of the output of the mine, and
- A graduated rate depending on the value of the mine’s output during the fiscal year, at prescribed percentages from 5% to 14%.

The value of the output from a mine is determined by the sum of the market value of minerals produced less deductible expenses which include transportation costs, operating costs, a depreciation allowance for capital assets (up to 100% of historical costs incurred), a development allowance (up to 100% of historical mine development costs incurred), exploration costs and contributions made to a mining reclamation trust.

As the depreciation and development allowance are deductible at a rate of up to 100% of historical costs incurred, a mine can generally recover its historical capital costs (through depreciation and development allowance) prior to paying mining royalties.

To date, no payments have been made by Baffinland towards the Federal Mining Royalty. Payments towards the Federal Mining Royalty are expected to begin in 2030.

Expected payments to Nunavut Tunngavik Inc. over the life of mine (2038):

- Federal Mineral Royalty³: **\$1.4 billion**

Qikiqtani Inuit Association (QIA)

QIA is a Designated Inuit Organization as outlined in the Nunavut Agreement. Baffinland and the QIA have an Inuit Impact and Benefit Agreement (IIBA) and a Commercial Lease.

Through the IIBA, Inuit benefit financially from the Project through the provision of royalty payments to the QIA as per Article 5 of the IIBA. At present, Baffinland pays the QIA 1.19% of Net Sales Revenue as the royalty for mining at Mary River.

Through the Commercial Lease with the QIA, Baffinland is required to make lease payments, tipping fees for waste disposal, quarry fees and aggregate use fees.

As of September 30, 2020 Baffinland has paid to the QIA the following in accordance with the IIBA. This does not include payments to QIA for ongoing IIBA implementation:

- Advance Payments \$38 million
- Quarterly Royalty Payments: \$3.14 million
- Commercial lease: \$25 million
- Total: **\$66 million**

As agreed in the Inuit Certainty Agreement (ICA), the IIBA will be amended to include significant increases in Royalty payments to the QIA over the life of the mine should Phase 2 be approved.

Assuming January 1, 2021 as the date of Phase 2 approval and an assumed iron ore price of \$75/ Dry Metric Tonnes, 62%Fe index, Baffinland expects it will pay the QIA over **\$969 million** in royalties between 2021- 2038.

Expected payments to the Qikiqtani Inuit Association over life of mine (2038):

- IIBA Implementation Costs: \$29.25 million (\$2.250 m / 13 calendar quarters)
- Commercial Lease Payments: \$73.1 million
- Aggregate Royalties: \$27.6 million
- Royalties: \$969 million
- Total: **Over \$1 billion**

³ The federal Mineral Royalties (FMR) calculations use several variables, including the volume of iron ore produced (tons), the revenues per ton that BIM may expect, expected operating costs per ton to extract, process and ship the ore to markets, the Total Depreciation Allowed (TDA) which takes into account the capital costs and the royalty rate. The total amount of FMR was calculated using the following formula:

$$\text{FMR} = ((\text{Tons of ore produced} \times (\text{Revenues per ton} - \text{Costs per ton})) - \text{Depreciation}) \times \text{Royalty rate}$$

$$\text{FMR} = ((391.29 \text{ MT} \times (\$69.07 - \$20.63)) - \$8.02 \text{ B}) \times 13 \% = \$1.4 \text{ B}$$

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INUIT CERTAINTY AGREEMENT

MARY RIVER PROJECT



The Inuit Certainty Agreement (ICA) is an important next step in the development of the Mary River Project. The agreement between Baffinland and the Qikiqtani Inuit Association (QIA) shows the value of partnership and collaboration.

The agreement gives more authority and a direct role to Inuit to monitor for any impacts from the Mary River Project or its proposed expansion. When the agreement comes into full effect it will also ensure more benefits are shared directly with affected communities of the Mary River Project.

Expanded Monitoring and Inuit Qaujimajatuqangit Input

The ICA expands the role that Inuit have to monitor and review the Mary River Project and its Phase 2 expansion. Inuit take a leading role in monitoring under this agreement. QIA will write the Inuit Stewardship Plan, which will cover monitoring of Culture, Resources and Land Use (CRLU) and social issues. The Inuit Stewardship Plan will ensure more in-depth monitoring of issues like:

- language preservation
- access to country food
- supporting youth and elders
- quality of life
- housing
- income and cost of living
- education and training
- mental health
- Inuit use of land and harvesting

Adaptive Management

Baffinland and QIA will agree on adaptive management objectives, indicators, thresholds and responses in areas of key interest to Inuit, including marine and terrestrial wildlife, water quality, dust deposition, and community well-being, to name a few.

Once finalized, these management plans will include clear blueprints for managing the environment in a manner that is consistent with the predictions in our assessments and Inuit values. When adaptive management responses are required, Inuit will continue to play a critical role in ongoing decision making through the Inuit Committee's and Inuit led monitoring programs under the Inuit Certainty Agreement.

Baffinland Workers

The agreement sets out changes to the IIBA that includes a new Inuit Career Mobility Strategy. Building on the foundation of the careers path progression plan for Inuit workers, this enhanced strategy is aimed at increasing movement into new or higher skill jobs for Inuit workers.

To make working at Mary River more accessible to more Inuit employees, Baffinland will offer an early childhood childcare subsidy. This will give Inuit Nunavut residents working at the Mary River Project a fixed daily allowance for each child under the age of 14.

Minimum Inuit Employment Goals will now be set every three years. All Mary River contractors will also have to provide Contractor Inuit Content Plans. Contracts will be smaller to allow smaller Inuit firms to bid directly on project work.

Community Benefits

Baffinland is pledging up to \$3 million (per affected community) to build or enhance childcare facilities in each of the affected communities. Baffinland will also pledge up to \$3 million for childcare facilities in Kinngait and Kimmirut when construction begins at Steensby Inlet.

At the request of Pond Inlet, Baffinland will fund a Country Food Baseline Study to show a baseline of country food consumption and food quality in the community.

QIA will work with communities to develop a management structure that delivers direct benefits to impacted communities. QIA will formally establish a Community Direct Benefits through means deemed most effective according to QIA's governance systems.

Harvester Support

The ICA increases compensation for harvesters. The Mittimatalik Hunters and Trappers Organization will receive \$1.3 million to compensate for extra harvesting efforts needed in the past because of the project.

A new Regional Harvesters Enabling Program will be created and maintained at \$750,000 yearly to be shared by HTOs in the five North Baffin communities. Also, the \$400,000 fuel subsidy program for residents of Pond Inlet over the age of 12, will be expanded to include Igloodik, Sanirajak, Kimmirut and Kinngait when the rail line and Steensby Inlet are built.

Project Changes

The project expansion will use rail route 3. Baffinland will improve crossing locations for wildlife and harvester access along the entire North Railway.

The ICA clarifies the process for any changes to the scope of the project including:

- Transportation of more ore than approved by the Nunavut Impact Review Board through the Northern Transportation Corridor
- Changes in icebreaking activities
- Changes to planned transportation routes (both land and marine)
- Increase in number of transit movements
- Changes to the existing Project Development Area

Monetary Benefits

- Baffinland will provide QIA funding IIBA implementation costs, freeing more QIA funds for programs and community benefits.
- Baffinland will make milestone payments to QIA totalling \$45 million over five years.
- Royalties will increase:
 - » From 1.19% to 1.50% June 2020
 - » After 36 months from 1.50% to 1.75%
 - » After 54 months from 1.75% to 2.25%
 - » After 72 months from 2.25% to 3.00%
- This royalty is in addition to the 12% royalty payable to NTI once Baffinland has recovered its investment into the Phase 2 Project.

Moving forward

The agreement provides increased benefits that depend on the Nunavut Impact Review Board (NIRB) granting Baffinland an amended Mary River Project certificate. This amended certificate would allow the Phase 2 expansion project to go ahead.

QIA had previously raised technical concerns with NIRB related to the proposed project expansion. The ICA includes an update from QIA on those concerns.

Improvements to the IIBA spelled out in the ICA propose a way forward for everyone's mutual, long-term benefit.





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NEW PHASE 2 COMMITMENTS

Through continued discussions with the Hamlet of Pond Inlet, Baffinland has developed new commitments to support communities, respect the environment, and build opportunities if the Phase 2 Project is approved.

These commitments are in addition to those Baffinland has already made, including the Inuit Certainty Agreement.

Environmental Protection and Shipping Activities:

- More dust monitoring which includes Inuit and an **independent Audit** to determine what actions the company **MUST** take to reduce dust
- No more than 168 ore carrier trips annually - **Shipping between July 15 and October 31**. Contingency to **Nov 15** based on ice conditions and consultation with MHTO
- **Gradual shipping increase over 4 years** to ensure monitoring is done to make sure full 12 mtpa shipping does not cause significant impacts
- **Ban the use of heavy fuel oil** by Baffinland contracted ore carrier vessels in the Nunavut Settlement Area, beginning in 2022
- Arctic Char monitoring program in Milne Inlet 2021 and Navy Board Inlet 2022. Both programs to be designed with Pond Inlet
- **Install 3 caribou observation stations** along the proposed rail route which will provide careers for 24 Inuit monitors each year

Additional Investment in People and communities:

- **6** new full time Baffinland positions in Arctic Bay, Clyde River, Igloolik, and Sanirajak
- **8** new full time Baffinland positions in Pond Inlet
- **20 full time** in community trainee positions every 6 months. Program evaluated every three years.
- **Community based** training to support Baffinland and community training needs in affected communities
- **Community Infrastructure** for Baffinland office and training space in affected communities
- **Community Garage** to serve as a pilot project for other communities. It will deliver training for Inuit in automotive trades
- **\$500,000** annual Hunter and Harvester Funding for Pond Inlet to support community driven country food harvesting
- Partnership with Université Laval to support construction of a **research station** in Pond Inlet



Attachment 3b

Community Specific Benefits of the Mary River Project

MARY RIVER PROJECT BENEFITS FOR POND INLET

To August 31, 2021

Pond Inlet Direct Benefits

\$14,120,897

Wages to Pond Inlet residents since 2015:

- 2015 - \$1,822,996
- 2016 - \$1,515,516
- 2017 - \$1,794,333
- 2018 - \$1,820,723
- 2019 - \$2,880,585
- 2020 - \$2,626,161
- 2021 - \$1,660,583

41 Pond Inlet residents work for Baffinland out of 252 Inuit employees as of August 31st, 2021

\$127,073 Financial disbursements to Pond Inlet Co-op membership due to charter flight contract signed with Arctic Co-op on April 1st, 2019.

IIBA Harvesters Enabling Program of **\$400,000** annually to Pond Inlet residents. **\$1,380,000** provided to Hamlet for distribution and administration to-date.

\$10,000,000 – Baffinland Inuit Training Centre

\$590,000 Tasiuqtiit Working Group- end of 2020 shipping season

- 2018 - \$130,000 – paid
- 2019 - \$240,000 – paid
- 2020 - \$220,000 – paid

Over \$323,315 Sponsorship and Donations Program since 2018 including (but not limited to):

- Mittimatalik Food Bank donations
- COVID-19 Food Relief

\$124,515 School Lunch Program

- 2017 - \$15,000
- 2018 - \$34,515
- 2019 - \$45,000
- 2020 - \$30,000

\$255,300 Baffinland community office rent and office payments since 2019.

\$15,882,424 Total value of contracts awarded to Inuit firms based in Pond Inlet in 2021 (to August 2021)

IIBA Community Benefits

- **\$750,000** Wildlife Compensation Fund
- **\$275,000** Business Capacity Start-up Fund
- **\$1,100,000** Ilagiiktunut Wellness Fund
- **\$300,000** School Lunch Programs for High Schools and Elementary Schools
- **\$300,000** Community Counsellor through the Ilisaqsivik Society
- **\$300,000** Community Research Vessel approx. value
- **\$200,000** Wildlife Monitoring Program

Pond Inlet Phase 2 Benefits

- **\$1,680,000** committed to Tasiuqtiit Working Group annually at full Phase 2 operations
- **\$1,300,000** one-time payment to the Mittimatalik Hunters and Trappers Organization for changes in hunting experience that Inuit from Pond Inlet have described.
- **\$300,000** partnership with Laval University to build a Pond Inlet Research Centre.
- **40** community-based trainees created in Pond Inlet per year for first 3 years.
- **8** new community-based full-time permanent positions created in Pond Inlet.
- Community Infrastructure to be built including **Community Day Care, Baffinland Office, Training Center and Community Garage.**

MARY RIVER PROJECT BENEFITS FOR ARCTIC BAY

To August 31, 2021

Arctic Bay Direct Benefits

\$15,953,667 Wages to Arctic Bay residents since 2015:

- 2015 - \$1,915,735
- 2016 - \$1,800,199
- 2017 - \$1,625,436
- 2018 - \$1,807,224
- 2019 - \$3,640,000
- 2020 - \$3,179,852
- 2021 - \$1,985,221

\$100,000 School Lunch Program, since 2020.

\$144,139 Financial disbursements to Arctic Bay Co-op membership from the charter flight contract with Arctic Co-op since April 1st, 2019

\$63,250 Total value of contracts awarded to Inuit firms based in Arctic Bay since 2015

Over \$159,169 Sponsorship/ Donations Program since 2018 including (but not limited to):

- \$50,000 - Day Care donation 2019
- Elders' gathering in Igloolik, 2019
- Food Bank donations
- Anu Nunavut Quest (annual North Baffin dog team race)
- Annual Christmas Hampers
- Qamutik Cup Tournament 2018
- COVID-19 Food Relief

\$32,000 Baffinland community office rent to the Hamlet of Arctic Bay since 2019

36 Arctic Bay residents work for Baffinland out of 252 Inuit employees as of August 31st, 2021

In-kind donation of counselor for schools

IIBA Community Benefits

- **\$300,000** Community Research Vessel approx. value
- **\$750,000** Wildlife Compensation Fund
- **\$275,000** Business Capacity Start-up Fund
- **\$1,100,000** Ilagiktunut Wellness Fund
- **\$300,000** School Lunch Programs
- **\$300,000** Community Counsellor through the Ilisaqsivik Society
- If phase 2 approved, Community Infrastructure to be built including **Community Day Care, Baffinland Office, Training Center and Community Garage.**

MARY RIVER PROJECT BENEFITS FOR IGLOOLIK

To August 31, 2021

Igloolik Direct Benefits

\$7,505,882 Wages to Igloolik residents since 2015:

- 2015 - \$ 1,025,477
- 2016 - \$ 963,721
- 2017 - \$ 505,377
- 2018 - \$ 981,667
- 2019 - \$ 1,854,403
- 2020 - \$ 1,376,116
- 2021 - \$ 799,121

\$79,894 Financial disbursements to Igloolik Co-op membership from the charter flight contract with Arctic Co-op since April 1st, 2019

In 2021, **\$4,423,393.28** in new contracting commitments to Igloolik Inuit Firms.

Over \$120,000 ~ in Sponsorship/ Donations Program since 2018 including (but not limited to):

- Elders' gathering in Igloolik, 2019
- COVID-19 Food Relief

\$57,000 Baffinland community office rent paid in Igloolik since 2019

\$240,000 School Lunch Program since 2018.

21 Igloolik residents work for Baffinland out of 252 Inuit employees as of August 31st, 2021

IIBA Community Benefits

- **\$300,000** Community Research Vessel approx. value
- **\$750,000** Wildlife Compensation Fund
- **\$275,000** Business Capacity Start-up Fund
- **\$1,100,000** Ilagiktunut Wellness Fund
- **\$300,000** School Lunch Programs
- **\$300,000** Community Counsellor through the Ilisaqsivik Society
- If phase 2 approved, Community Infrastructure to be built including **Community Day Care, Baffinland Office, Training Center and Community Garage.**

MARY RIVER PROJECT BENEFITS FOR SANIRAJAK

To August 31, 2021

Sanirajak Direct Benefits

\$9,927,363.76

Wages to Sanirajak residents since 2015:

- 2015 - \$633,284.01
- 2016 - \$901,337
- 2017 - \$786,851
- 2018 - \$1,157,572.75
- 2019 - \$2,759,324
- 2020 - \$2,241,980
- 2021 - \$1,447,015

\$116,232 Financial disbursements to Sanirajak Co-op membership from the charter flight contract with Arctic Co-op since April 1st, 2019

\$42,935,369 Total value of contracts awarded to Inuit firms based in Sanirajak since 2018

Over **\$96,431** Sponsorship/ Donations Program since 2018 including (but not limited to):

- Travel for Elders to attend gathering in Igloolik, 2019
- COVID-19 Food Relief
- Fishing Derbies

\$56,000 Baffinland community office rent to the Hamlet of Sanirajak since 2019

18 Sanirajak residents work for Baffinland out of 252 Inuit employees as of August 31st, 2021

IIBA Community Benefits

- **\$300,000** Community Research Vessel approx. value
- **\$750,000** Wildlife Compensation Fund
- **\$275,000** Business Capacity Start-up Fund
- **\$1,100,000** Ilagiktunut Wellness Fund
- **\$300,000** School Lunch Programs
- **\$300,000** Community Counsellor through the Ilisaqsivik Society
- If phase 2 approved, Community Infrastructure to be built including **Community Day Care, Baffinland Office, Training Center and Community Garage.**

MARY RIVER PROJECT BENEFITS FOR CLYDE RIVER

To August 31, 2021

Clyde River Direct Benefits

\$13,538,061

Wages to Clyde River residents since 2015:

- 2015 - \$1,296,631
- 2016 - \$1,500,289
- 2017 - \$1,287,095
- 2018 - \$1,963,520
- 2019 - \$3,227,432
- 2020 - \$2,688,379
- 2021- \$1,574,715

\$414,027.89

Financial disbursements to Clyde River in the form of donations and food support due to charter flight contract with Arctic Co-op resulting in over 19 tonnes of food being provided since April 2019.

Over \$103,876

Sponsorship and Donations Program 2018-2020 including (but not limited to):

- \$26,000 to Ilisaqsivik Society for COVID19 food relief
- Funding for sports programming, including at Quluaq School
- Ittaq Society

\$56,000 - Baffinland community office rent paid to the Hamlet since 2017

30 Clyde River residents work for Baffinland out of 252 Inuit employees as of August 31, 2021

IIBA Community Benefits

- **\$300,000** Community Research Vessel approx. value
- **\$750,000** Wildlife Compensation Fund
- **\$275,000** Business Capacity Start-up Fund
- **\$1,100,000** Ilagijktunut Wellness Fund
- **\$300,000** School Lunch Programs
- **\$300,000** Community Counsellor through the Ilisaqsivik Society
- If phase 2 approved, Community Infrastructure to be built including **Community Day Care, Baffinland Office, Training Center and Community Garage.**

MARY RIVER PROJECT BENEFITS FOR IQALUIT

To August 31, 2021

Iqaluit Direct Benefits

\$17,983,905 Wages to Iqaluit residents since 2015:

- 2015 - \$1,438,422
- 2016 - \$1,115,107
- 2017 - \$1,110,503
- 2018 - \$1,784,098
- 2019 - \$4,637,580
- 2020 - \$5,080,824
- 2021 - \$2,817,371

In 2021, **\$153,795,342** in new contracting commitments to Iqaluit Inuit Firms.

\$157,995 Financial disbursements to Iqaluit Co-op membership from the charter flight contract with Arctic Co-op since April 1st, 2019

56 Iqaluit residents work for Baffinland out of 252 Inuit employees as of August 31st, 2021

\$88,929 Baffinland community office rent and apartment rent paid in 2021 (to August 2021)

Baffinland and its Partners have donated over **\$175,000** to causes and organizations in Iqaluit since 2019

IIBA Community Benefits

- **\$300,000** Community Research Vessel approx. value
- **\$750,000** Wildlife Compensation Fund
- **\$275,000** Business Capacity Start-up Fund
- **\$1,100,000** Ilagiiktunut Wellness Fund
- **\$300,000** School Lunch Programs
- **\$300,000** Community Counsellor through the Ilisaqsivik Society

Attachment 4

Canadian Ice Service Charts for Steensby and Milne Shipping
Routes, Last 15 Year

Table 1. Breakup and open water dates along the route to the Steensby Inlet port site over the last 15 years, based on weekly CIS ice charts.

Year	Fast ice Breakup	Open water	Freeze-up	Open water season (days)	Presence of drift ice during OW season
2005-06	18-Jul	29-Aug	7-Nov	70	n/a
2006-07	24-Jul	21-Aug	13-Nov	84	n/a
2007-08	23-Jul	3-Sep	29-Oct	56	n/a
2008-09	14-Jul	15-Sep	20-Oct	35	n/a
2009-10	20-Jul	31-Aug	12-Oct	44	n/a
2010-11	12-Jul	23-Aug	15-Nov	84	n/a
2011-12	18-Jul	5-Sep	24-Oct	49	n/a
2012-13	16-Jul	3-Sep	29-Oct	56	Until mid-Sept
2013-14	22-Jul	9-Sep	14-Oct	35	n/a
2014-15	21-Jul	15-Sep	13-Oct	25	n/a
2015-16	27-Jul	28-Sep	26-Oct	28	Until late Sept
2016-17	18-Jul	5-Sep	17-Oct	33	n/a
2017-18	3-Jul	28-Aug	23-Oct	64	n/a
2018-19	9-Jul	Sept10	15-Oct	28	Through all Sept
2019-20	1-Jul	12-Aug	4-Nov	84	n/a
Average	<i>17-Jul</i>	<i>3-Sep</i>	<i>26-Oct</i>	<i>52</i>	<i>n/a</i>
Earliest/shortest season	<i>1-Jul</i>	<i>12-Aug</i>	<i>12-Oct</i>	<i>25</i>	<i>n/a</i>
Latest/longest season	<i>27-Jul</i>	<i>28-Sep</i>	<i>15-Nov</i>	<i>84</i>	<i>n/a</i>
Variability	26 days	47 days	43 days	59	<i>n/a</i>

Source: Fednav (2021)

Table 2. Breakup and open water dates along the route to the Milne Inlet port site over the last 15 years, based on weekly CIS ice charts.

Year	Break-up	Open water	Freeze-up	Open water season (days)	Presence of drift ice during OW season
2005-06	24-Jul	31-Jul	31-Oct	92	No
2006-07	22-Jul	6-Aug	13-Oct	68	No
2007-08	20-Jul	30-Jul	16-Oct	78	No
2008-09	21-Jul	6-Aug	11-Oct	66	No
2009-10	16-Jul	4-Aug	8-Oct	65	No
2010-11	11-Jul	27-Jul	22-Oct	87	No
2011-12	14-Jul	25-Jul	20-Oct	87	No
2012-13	19-Jul	30-Jul	10-Oct	72	No
2013-14	28-Jul	8-Aug	21-Oct	74	No
2014-15	20-Jul	5-Aug	17-Oct	73	No
2015-16	11-Jul	24-Jul	7-Oct	75	Early Oct
2016-17	15-Jul	8-Aug	9-Oct	62	Mid Aug/Early Oct
2017-18	20-Jul	14-Aug	27-Sep	44	Early Aug/Early Oct
2018-19	12-Jul	25-Jul	26-Oct	93	No
2019-20	19-Jul	30-Jul	26-Oct	88	Early October
<i>Average</i>	18-Jul	1-Aug	15-Oct	75	n/a
Earliest/shortest season	11-Jul	24-Jul	27-Sep	44	n/a
Latest/longest season	28-Jul	14-Aug	31-Oct	93	n/a
<i>Variability</i>	17	21	34	49	n/a

Source: Fednav (2021)