



## Inuit Qaujimajatuqangit (IQ) and the Mary River Project Phase 2 Proposal

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Baffinland Iron Mines Corporation  
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# 1 INTRODUCTION

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Baffinland would like to thank reviewers for the technical comments provided on the use of Inuit Qaujimajatuqangit (IQ) in the FEIS Addendum for the Phase 2 Proposal. Through the engagement and consultation process that has been undertaken for the Project, Baffinland has aimed to enhance long-term relationships with QIA and Inuit. This process has also deepened Baffinland's understanding of what IQ is and how this evolving body of knowledge and related Inuit Societal Values (ISV) can enhance Project discussions and processes. Baffinland has relied on QIA's feedback and will continue to request QIA's active involvement in methods for collecting, evaluating and integrating IQ. QIA's technical review comments in particular, contribute to this ongoing and important dialogue.

This report provides an overview of Baffinland's overall approach to the collection, consideration, and use of IQ, and provides specific examples of how IQ was used in the Phase 2 Proposal and how it has influenced Project design. It also looks ahead to the future development of strengthened systems and processes related to IQ.

## 2 BAFFINLAND'S APPROACH TO IQ

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Since inception of the Project in 2004 Baffinland has been proactively engaging with local communities. This has been supported by Baffinland Community Liaison Officers and has included frequent and varied discussions with local stakeholders, and engagement with Inuit communities and organizations (e.g. Hunters and Trappers Organizations and Hamlets), and with QIA as the Designated Inuit Organization representing the North Baffin Inuit. Baffinland's engagement and community research activities have emphasised historic and contemporary land use ties as well as IQ in the Project area, which are critical to the Company's understanding of the environment and landscape in which the Project is located.

The Project Inuit Impact and Benefit Agreement (IIBA) has a definition of IQ relevant to this discussion. Use of the Inuktitut term "Inuit Qaujimajatuqangit" or the acronym "IQ" is broadly intended to mean Inuit Societal Values (ISV) that include traditional, current and evolving bodies of Inuit values, beliefs, experience, perceptions and knowledge regarding the environment, including, land, water, wildlife and people, to the extent that people are part of the environment.

Baffinland acknowledges the different definitions of IQ exist, including those defined by NIRB. While the term 'IQ' is often used by Baffinland, it is typically used in a broad and inclusive manner akin to the NIRB's definition of Inuit Qaujimajatuqangit. Baffinland seeks to gather 'IQ' through frequent and ongoing community engagement, where community members have the opportunity to share their unique knowledge and values in relation to the Project. While it is true that all community engagement cannot be considered IQ (e.g. general comments, clarifications, and questions asked about Project activities or how to access Project benefits and programs), it would not be appropriate to fully separate it from IQ either. In other words, although not always classified as IQ gathering activities, engagement activities do provide important opportunities for Baffinland to acquire IQ and community-based knowledge perspectives relative to the operating Project and future phases. Through community engagement and research, residents have often used their knowledge to share observations about the land, wildlife, and their communities; describe insights and concerns related to Inuit livelihood effects; and suggest ways these issues might be addressed. These valuable comments haven't been dismissed simply because they weren't collected under the auspices of a formal IQ study; rather, Baffinland has used this information to develop a more comprehensive assessment of socio-economic and environmental issues related to the Phase 2 Proposal.

The Mary River Project IIBA with QIA prescribes the objectives for how IQ will be incorporated into the Project, including that Baffinland will consider IQ in relevant decision making (Article 16.2). The IIBA also provides guidance on the collection and use of IQ (Article 16.3), and ownership of IQ (Article 16.4). Baffinland recognizes the importance of IQ to Inuit, understands the importance of IQ in the NIRB regulatory process, and the need to incorporate it into key stages of project decision-making and assessment in order to earn community support for the Project. Since the Project's inception, efforts regarding data collection, evaluation and integration of IQ has been increasing. These ongoing improvements are welcomed by Baffinland, and the Project's Stakeholder Engagement Plan (TSD-04) and Approach to Adaptive Management have been designed as living documents that can be updated to reflect the evolving preferences and needs of regulators and community members.

Baffinland acknowledges concerns have been raised by QIA, through technical comments, on the use of workshops to collect IQ for the Phase 2 Proposal. As identified in the Project's Phase 2 Workshop Report (TSD-03), Baffinland consulted with QIA when developing the community workshop methodology proposals and received formal approval of the final workshop methodology proposals from QIA before the workshops were initiated. Baffinland would also like to highlight that many additional opportunities were available for QIA to offer feedback and/or voice concerns on this approach to-date. To Baffinland's best knowledge, however, no significant concerns were raised by QIA prior to receipt of the information requests. In the technical comments QIA has requested additional IQ to be collected. Baffinland is in the process of collecting additional IQ for the Phase 2 Proposal and this is discussed in additional detail in Section 4.1 below.

## 2.1 Alignment with Inuit Societal Values

The Phase 2 Proposal will continue to provide sustainable and durable social and economic benefits to Inuit without compromising the integrity of the ecosystem or the right of future generations to the sustainable use of renewable and non-renewable resources. The Project as designed, inherently considers and adheres to Baffinland's understanding of the intent of Inuit Societal Values. Baffinland sees the sustainable development principles that underpin the Company's approach to operating the current Project and planning for the Phase 2 Proposal as complementary to these values. The Government of Nunavut's (2018) mandate document *Turaaqtauvut* describes Inuit Societal Values. A description of how Baffinland has incorporated each of these values into the Mary River Project is found in Table 1.

**Table 1 Alignment with Inuit Societal Values**

Inuit Societal Value	How Baffinland has Incorporated Each Value into the Mary River Project
<u>Inuuqatigiitsiarniq</u> Respecting others, relationships and caring for people	Baffinland provides a work environment where all workers are treated with respect and dignity. It is the policy of Baffinland to prohibit any form of violence and unlawful harassment, including harassment based on race, ancestry, place of origin, colour, ethnic origin, citizenship, creed, sex, sexual orientation, gender identity, gender expression, age, record of offences, marital status, family status, or any other prohibited ground of discrimination. Baffinland respects human rights, the dignity of others, and diversity in our workforce. Baffinland also honours and respects the unique cultural values and traditions of Inuit. People are our greatest asset and nothing is as important as their health and safety. Our motto is 'Safety First, Always'. We foster and maintain a positive culture of shared responsibility based on participation, behaviour, awareness, and promoting courageous leadership. We allow our employees and contractors the right to stop any work if and when they see something that is not safe. We also ensure resources are available to support our employees when needed, including through our Employee and Family Assistance Program, Community Counsellor Program, on-site Inuit Cultural Advisors, and site medic.
<u>Tunnganarniq</u> Fostering good spirits by being open, welcoming and inclusive	Baffinland welcomes workers to the Project from throughout the Qikiqtaaluk Region and elsewhere. We have developed programs and policies to be inclusive of individuals from all walks of life and have zero-tolerance for any form of workplace harassment. Furthermore, we acknowledge the Project is located on Inuit owned lands and recognize we need to be culturally sensitive and aware in our everyday operations. To this end, we support various Inuit cultural events and programs both on-site and in nearby communities. We also deliver mandatory cross-cultural training to our employees and contractors, support the use of Inuktitut in the workplace, and welcome visiting Inuit land users at Project sites. Furthermore, we have implemented several programs to accommodate individuals interested in Project employment, but who may lack formal skills and experience in a mining environment; our goal is to welcome as many interested and qualified Inuit to the Project workforce as possible.
<u>Pijitsirniq</u> Serving and providing for family and/or community	Baffinland views itself as part of the Qikiqtaaluk community and contributes to community development in several ways. This includes providing meaningful employment, training, and contracting opportunities to Inuit, in addition to paying all relevant taxes, royalties, and fees to government agencies and QIA. The mine is also a type community and we therefore work to support our employees' health and well-being by providing a safe, supportive, and inclusive working environment. We acknowledge sustainable development extends beyond our everyday mining operations and will thus continue contributing to various North Baffin community wellness initiatives and programs (e.g. through the INPK Fund and other IIBA commitments, community donations). Serving and providing for the community also extends to the traditional economy and Baffinland has made various commitments in this area as well (e.g. Harvesters Enabling Program in Pond Inlet, Wildlife Compensation Fund, seasonal country food exchange program, and permitting harvesting and establishing country food kitchens at Project sites).
<u>Aajiiqatigiinniq</u> Decision making through discussion and consensus	Baffinland recognizes the valuable insights Inuit and other stakeholders have on the Project, many of which are shared through community engagement and/or review processes (e.g. NIRB environmental assessment process). We are further committed to ongoing IIBA implementation with QIA. We acknowledge the importance of collaboration when making important decisions about Project development. We undertake thorough public engagement to create a shared understanding of relevant social, economic, and environmental concerns and opportunities with communities, regulators, stakeholder organizations, and the public. Our commitments in this area have been formalized in our Stakeholder Engagement Plan, IIBA, and elsewhere. We honour our commitments by being sensitive to local needs and priorities, and we work in active partnership to make decisions where appropriate. Baffinland participates in several collaborative forums for the Project, including various IIBA committees, the Terrestrial Environment Working Group, Marine Environment Working Group, Qikiqtaaluk Socio-Economic Monitoring Committee, and Mary River Socio-Economic Monitoring Working Group. Baffinland remains open to discussing with stakeholders how improved Project outcomes and enhanced community benefits may be achieved.

<p><u>Pilimmaksarniq/Pijariuqsarniq</u> Development of skills through observation, mentoring, practice, and effort</p>	<p>Baffinland provides significant training and skill development opportunities to Inuit, including through formal work readiness, apprenticeship, heavy equipment operator, and internship training. Training and skill development opportunities also informally occur through everyday work and on-site mentorship. Many of the skills developed by Inuit at the Project are transferable to other work locations, communities, and home life. Baffinland also supports several school-based initiatives in the North Baffin to help promote successful educational outcomes. These include annual laptop donations to secondary school graduates, post secondary school scholarships, a school lunch program, and other relevant education-related donations. However, we recognize education and learning are life-long endeavours and opportunities always exist for improvement at Project sites. Baffinland embraces the concepts of adaptive management and continuous improvement to ensure Project enhancements are regularly being considered.</p>
<p><u>Piliriqatigiinniq/Ikajuqtigiinniq</u> Working together for a common cause</p>	<p>Baffinland is committed to the common goal of sustainable development in the Qikiqtaaluk Region, but recognizes this will require a collaborative effort. Baffinland contributes to the social, cultural, and economic development of the communities it works with and has developed a Sustainable Development Policy and negotiated an IIBA to support corporate goals and actions in this area. Baffinland also takes steps to understand, evaluate, and manage risks on a continuing basis, including those that may impact the environment, employees, contractors, local communities, customers, and shareholders. More generally, we work with communities and other stakeholders to ensure the delivery of meaningful and lasting benefits in the Qikiqtaaluk Region, while also being protective of the environment. We remain open to suggestions from our employees and stakeholders on how Project operations can be improved. To this end, we have implemented an Employee Concerns Policy, conduct regular evaluations of workplace conditions in cooperation with QIA, participate in several multi-party committees and working groups, in addition to regularly engaging other stakeholders on the Project.</p>
<p><u>Qanuqtuurniq</u> Being innovative and resourceful</p>	<p>Baffinland's employees are our greatest asset and best resource for advancing the Project daily. Developing a world-class mine in the challenging conditions of the Canadian Arctic requires us to constantly innovate and be resourceful, and Inuit have a key role in our success. Employee feedback is encouraged and regularly solicited, and we strive for continual improvement in all aspects of our work. We continuously seek to use energy, raw materials, and natural resources more efficiently and effectively. We also report, manage, and learn from injuries, illnesses, and high potential incidents to foster a workplace culture focused on safety and the prevention of incidents. More simply, we strive to develop more sustainable practices. Community members have provided valuable input on Project plans and outcomes for many years and we will continue to encourage these contributions. IQ and community input have also informed the baseline environmental and socio-economic data we've collected, effects assessments we've conducted, and the mitigation and monitoring programs we've developed.</p>
<p><u>Avatittinnik Kamatsiarniq</u> Respect and care for the land, animals and the environment</p>	<p>Baffinland acknowledges the importance of the land, animals, and environment to Inuit and the relevance these have to Inuit culture and well-being. Environmental protection is of the highest priority for Baffinland and we abide by all environmental rules and regulations. Furthermore, Baffinland applies the principles of pollution prevention, waste reduction, and continuous improvement to minimize ecosystem impacts and facilitate biodiversity conservation. We also endeavour to ensure that adequate resources are available and that systems are in place to implement risk-based management systems, including defined standards and objectives for continuous improvement. Furthermore, we ensure that an effective closure strategy is in place at all stages of Project development to ensure reclamation objectives are met. Baffinland has employed a balance of the best scientific and traditional Inuit knowledge to safeguard the environment and several mitigation and management measures have been developed in support of this (e.g. management plans for various wildlife and environmental components). The Company continues to engage Inuit on its environmental monitoring programs (e.g. through terrestrial and marine environment working groups) and employs adaptive management to identify and make improvements to the Project that may be required.</p>

## 3 HOW IQ WAS INCORPORATED

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### 3.1 Existing Sources of IQ Utilized by Baffinland

IQ has been collected specific to the Project under research licenses issued by the Nunavut Research Institute. As described previously in this document, the term IQ is used in a broad and inclusive manner by Baffinland. As such, Baffinland's understanding of IQ as it relates to the Project has been greatly enhanced by a variety of fora, including workshops, community meetings, and discussions with Elders and IQ holders that have occurred as part of the Mary River Project's broader community engagement program.

A summary of the IQ sources used in the FEIS and in the FEIS Addendum for the Phase 2 Proposal is provided in Table 2, below.

Outside of the formal IQ collection process, input from Inuit communities was gathered through Baffinland's engagement processes. A summary of the participation and engagement that has occurred as part of the Project is provided in Appendix A.



**Table 2 Sources of IQ Used by Baffinland**

Project Phase	IQ Source	Description	References
FEIS	Land Use Report	Provides an overview of the history of the region, information on land use during the contact-traditional period, and a more detailed overview of current land use activities in the North Baffin and Foxe Basin areas. Published sources, personal communications, and the Project's own IQ study were used to describe land use in the Mary River Project and surrounding areas.	<b>FEIS Appendix 4C (Baffinland 2012): Land Use Report</b>  <b>FEIS Appendix 2B (Baffinland 2012): Summary of Community-Based Research Undertaken for the Mary River Project 2006 to 2010</b>  <b>FEIS Addendum for the Phase 2 Proposal, TSD-05: Mary River Inuit Knowledge Study Mapbook</b>  <b>IQ Database for the FEIS (Baffinland and QIA internal database)</b>
	Individual Interviews	IQ interviews were conducted with individuals in Arctic Bay, Igloolik and Pond Inlet from 2006 to 2008. Working groups identified key knowledge holders in the community. Interview questions focused on Inuit use and understanding of the land, caribou, marine mammals, fish, birds, and other land mammals. A total of 45 interviews were completed.	
	Topic-Specific Workshops	From 2007 to 2010, workshops on caribou, marine mammals and Inuit land use were conducted in the North Baffin and South Baffin communities to identify areas of importance and use to Inuit and to identify potential Project interactions with these topics. A total of 15 workshops were completed.	
	Individual Working Group Meetings	Information was collected through the establishment of, and meetings with, individual working groups in each North Baffin community. A total of five working groups were established: <ul style="list-style-type: none"> <li>Pisiksik Working Group (Pond Inlet - 2006)</li> <li>Qaatiliit Working Group (Igloolik - 2007)</li> <li>Inuksuligarjuk Working Group (Arctic Bay - 2007)</li> <li>Tikkuu Working Group (Hall Beach - 2008)</li> <li>Ukkakut Working Group (Clyde River - 2008)</li> </ul>	
	'Kajjuqtikkut' - Arctic Bay Working Group Meeting	In March 2008, Baffinland sponsored a 5-day workshop in Arctic Bay that brought together the working groups from each of the five North Baffin communities to discuss socio-economic issues, caribou, marine mammals, transportation, and the future of the working groups. Participants named the meeting 'Kajjuqtikkut', which means 'the place where everyone comes to meet after traveling', in reference to a place where Inuit traditionally used to meet near Nuluujaak (Mary River).	
	Baffinland - QIA Thematic Workshop	On September 8-12, 2010 Baffinland and the QIA jointly hosted a thematic workshop at Mary River. The QIA selected 3 to 4 representatives from each participating North Baffin and South Baffin community. The agenda included five days of thematic discussions on the EA process for the Project, caribou, marine mammals and shipping, the proposed 3 Mtpa road operation, consisting of year-round haulage of ore over the Milne Inlet Tote Road and open water shipping of ore out of Milne Inlet.	
	Community and Stakeholder Engagement (2006 – Ongoing)	Baffinland has created several opportunities for Inuit community members and other stakeholders to share information with the Company (including IQ, if desired), provide feedback and/or suggestions regarding the Approved Project. Baffinland has organized or participated in various meetings with the public, and community and stakeholder groups (including working groups), as described further in TSD-04. A list of public meetings and community group meetings are provided the Annual Reports to NIRB	
FEIS Addendum for	Community Workshops (2015 to 2016)	Baffinland organized a series of 'invited persons' workshops and public open houses in Pond Inlet and Arctic Bay, Nunavut between March 2015 and May 2016 to discuss the Phase 2 Proposal. These workshops were focused on five main themes:	<b>FEIS Addendum for the Phase 2 Proposal, TSD-03: Phase 2 Workshop Report</b>

Project Phase	IQ Source	Description	References
the Phase 2 Proposal		<ul style="list-style-type: none"> <li>Contemporary Inuit land use in the Eclipse Sound and Navy Board Inlet areas</li> <li>Shipping through ice</li> <li>Open water shipping</li> <li>Caribou</li> <li>Phase 2 and Arctic Bay</li> </ul> <p>A verification meeting was held in Pond Inlet in May 2016 to confirm accuracy of IQ collected during the workshops and to obtain feedback from community members on the efficacy of the workshops.</p>	FEIS Addendum for the Phase 2 Proposal, TSD-04: Public Consultation Report
	Community and Stakeholder Engagement (2014 – Ongoing)	Baffinland has created several opportunities for Inuit community members and other stakeholders to share information with the Company (including IQ, if desired), provide feedback and/or suggestions regarding the Phase 2 Proposal. Baffinland has organized or participated in various meetings with the public, and community and stakeholder groups (including working groups), as described further in TSD-04. A list of public meetings and community group meetings are provided in the Annual Reports to NIRB.	
	Community Risk and Mitigation Workshops (2019 - Ongoing)	The goal of these workshops is to establish community-informed terrestrial and marine environmental protection measures for the Phase 2 Proposal. For greater clarity, ‘protection measures’ may include management, mitigation, and/or related monitoring initiatives. At the first two workshops, Caribou were primary focus of the terrestrial environment workshop discussions, while narwhal and aquatic invasive species/ballast water discharge were the primary focus of the marine environment workshop discussions. Additional topics were discussed as time allowed. QIA continues to be engaged on the design and execution of these workshops.	



### 3.2 Influence of IQ on the Project

Baffinland values its relationships with the North Baffin communities and places great importance on the information, concerns, and other feedback that it receives on Project operations. When designing and carrying out Project activities, Baffinland strives to consider, respond to, and incorporate community-based knowledge gained through IQ. Examples of this are ubiquitous in the history of the Project. A few specific examples are described below.

#### Project Design

- Switch from road to rail to address concerns related to effect of fugitive dust emissions on drinking water sources, vegetation and fish.
- Winter shipping was originally contemplated as part of the Phase 2 Proposal but was removed as a result of IQ input and community feedback that revealed concerns with this approach and its potential effects on marine wildlife and Inuit land use.
- Switch from outdoor secondary crushing at the Mine Site to development of indoor secondary crushing at Milne Port, to address concerns related to effect of fugitive dust emissions on drinking water sources, vegetation and fish.
- The Phase 2 Proposal shipping period was ultimately selected to avoid time periods of critical Inuit land use and harvesting activities.
- While the Steensby Inlet shipping component of the Project has not yet been implemented, IQ played a role in determining the location of the proposed shipping route (to the east of Rowley Island), in order to avoid important marine wildlife habitat and Inuit harvesting areas. IQ also identified important Inuit travel routes through Steensby Inlet, which necessitated the development of land user detour and site access procedures by Baffinland.
- Nominal shipping route for the Northern shipping corridor. Monitored by setting up specific alerts to identify when vessels are travelling close to areas used by hunters (e.g. western shoreline by Bruce Head) and establishment of restricted areas where vessels cannot travel (e.g. Koluktoo Bay).
- As part of the railroad design, IQ will be used to determine the location of wildlife crossings and pedestrian crossings based on travel routes.

#### Selection of VECs

- The selection of blueberry as an indicator species for Culturally Important Vegetation in the FEIS was based on information gathered in the 2007 Traditional Knowledge Study for Culturally Valued Vegetation, with consideration for the abundance of the species in the Regional Study Area (RSA) and the ability to model species distribution.
- Lichen was selected as a key indicator species in the vegetation program due to its relationship to caribou in the region, which are a species valued by Inuit.

#### Baseline Studies

IQ has provided a key source of information on environmental baseline conditions in the Project area and has helped fill gaps in scientific knowledge (e.g. knowledge on North Baffin caribou abundance, movement, and ecology):

- IQ based traditional plant use studies
- Information on caribou behavior, movement, and distribution

- Information on birds in the Project area
- Information on fish species in the Project area
- Distribution of marine mammals
- Species important for harvesting activities
- Land use information
- Areas of cultural value

IQ has also informed Baffinland's understanding of historic and/or baseline socio-economic conditions in some instances (e.g. traditional settlement and migration patterns, dimensions and components of Inuit society, traditional approaches to education and skill development, family roles, livelihood pursuits, self-reliance strategies, conceptualizations of health and community well-being). More generally, IQ and community input have provided Baffinland with a deeper context and understanding of socio-economic conditions in the Local Study Area, and of the challenges and opportunities that may be encountered through resource development.

#### Effects Assessment

Through the IQ data collection and community engagement processes outlined previously, the baseline for the effects assessment was informed by IQ. Impact prediction, including significance assessment, is also inherently based on baseline data. An accurate baseline is necessary to predict the conditions potential effects of the Project. That is to say, a good understand of current conditions allows for the prediction and protection of future conditions. IQ was also used to identify and substantiate the VECs and VSECs to help focus the effects assessment on the issues identified by local communities and knowledge- holders, and in developing mitigations and monitoring plans. The assessment of effects has focused on concerns identified by community members, including:

- Loss or alteration of narwhal habitat due to port construction and shipping;
- Injuries or mortality of marine mammals due to ship strikes; and
- Acoustic disturbance effects on marine mammals from port construction and shipping that may lead to changes in animal distribution, abundance, migration patterns, and subsequent availability of these animals for harvesting.

Spatial boundaries for the assessment were determined in consideration of, for example, the distribution of a species valued by Inuit, which as described above, is often informed by IQ. For fish and fish habitat and the wildlife and wildlife habitat, the spatial boundaries were determined in consideration of IQ regarding the spatial distribution of Arctic char in Milne Inlet, and the distribution of caribou on Baffin Island. Spatial boundaries for the socio-economic effects assessment were selected to be inclusive of those communities with strong traditional/current use ties to the Project area. These communities have the potential to be the most affected by the Project and are where Project benefits are subsequently provided and where mitigation is focused.

The assessment of potential Project effects was also influenced by IQ. For example, IQ has informed Baffinland's understanding of caribou distribution and movement patterns. This understanding helped identify effects of the northern railway on caribou movement, which was assessed as a potential effect of the Phase 2 Proposal. To mitigate this potential effect, trails that cross or approach the Northern Transportation Corridor will have modified embankments (if necessary) to confirm the height and slope do not present a barrier to caribou moving through the landscape. If the regional caribou population increases and caribou start to move through the RSA more frequently, as expected based on IQ, these areas will

become more heavily used and monitoring of caribou movement will become increasingly important. Operation of the Northern Transportation Corridor will incorporate IQ into activity planning, particularly in movement areas, and future monitoring. Additional information on how IQ has been incorporated into monitoring programs is provided in Section 4.2 below.

In other cases, IQ and community input have informed Baffinland's understanding of socio-economic effects that may be experienced by Inuit. For example, these sources have clearly demonstrated the complex nature of Inuit livelihoods and the importance of both the wage (e.g. employment-based) and traditional economies (e.g. harvesting, land and marine use, consumption of country food) to current individual/community health and well-being. Ongoing changes in Inuit society (e.g. the transition to a mixed/wage-based economy) have also been considered in how some Project effects may be experienced by Inuit.

IQ was also considered in the determination of some significance thresholds. For example, as discussed in TSD-10 (Wildlife Baseline and Impact Assessment), public concern is a criterion for assessing significance. Public concern, which as described in Section 3.1 of TSD-10, includes IQ as one of the information sources. Significance determinations are made in accordance with the EIS Guidelines, and in compliance with NuPPAA. Significance determinations for the Phase 2 Proposal followed the same methods that were used in the FEIS.

#### Mitigation

- IQ has identified wildlife species, harvesting locations, and land/marine components of importance to Inuit, and has informed Baffinland's approach to mitigating Project effects in these areas.
- Reduction of speed of Project vessels from 7-10 knots to a maximum speed of 9 knots to address community concerns about the potential for vessel noise on marine mammals
- Identification of community-preferred drifting locations for Project vessels near Ragged Island
- Commitment to have a maximum of three Project-vessels drifting at Ragged Island

#### Monitoring

- As part of the air monitoring program, the locations of the dust monitors that were installed in 2018 were chosen in consultation with the MHTO.
- Monitoring programs have been expanded and revised based on information from local community members, including the extension of programs to Ragged Island, and the analysis of more fish.
- The 2017 height of land (HOL) surveys were conducted in partnership with the MHTO to incorporate IQ into the surveys. A representative of the MHTO provided valuable IQ on recent and historical caribou use of the Mary River area, as well as information on caribou behaviour and how to look for caribou on the North Baffin landscape during the HOL surveys conducted in April and June. Feedback on the design of the HOL surveys as well as the viewshed mapping methods was provided. Participation of the MHTO in HOL surveys will continue in 2019.

Additional information regarding community input on Project monitoring is provided in Section 4.1.1 below.

## 4 LOOKING AHEAD

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### 4.1 Additional IQ to be Collected

Baffinland is in the process of undertaking a series of community risk and mitigation workshops with participants from all five North Baffin communities. Before undertaking these workshops Baffinland requested participation and feedback on the design, topics for discussion and undertaking to ensure that they would be culturally appropriate and an effective tool for retrieving and supporting the incorporation of relevant IQ in the Phase 2 Proposal. The specific objective of these workshops is to examine Baffinland's existing and proposed terrestrial and marine mammal monitoring programs and identify improvements to account for the additional terrestrial (rail) and marine (increased frequency) transportation components of Phase 2. The final workshop is planned to take place at the Mary River Mine Site the week of May 6<sup>th</sup> 2019 and Baffinland encourages QIA's participation. A final report will be issued to the NIRB and interested parties on or before July 10<sup>th</sup> 2019, and will include a summary of conclusions and recommendations as well as all three individual workshop reports.

Following the April 8-10, 2019 Technical Meeting, Baffinland will also return to the North Baffin communities to present summarized results of its Phase 2 Proposal EIS, alternatives assessment, and to discuss VEC/VSEC significance conclusions with community members. Community feedback and/or IQ obtained during this process may be used to update Baffinland's effects assessments and/or ongoing management of the operating Project and implementation of the Phase 2 Proposal.

Baffinland has an ongoing commitment to the North Baffin communities to continuously seek their feedback and input into the Project at all stages of the Project. The effort to collect IQ for the Project is viewed by Baffinland as a living initiative, not one that is strictly bound by the timelines of the EIS process for the Phase 2 Proposal. Through ongoing community consultations, participation of community members in the environmental and socio-economic working groups, annual site visits, and Inuit participation in the environmental monitoring programs for the Project, Baffinland has the opportunity to utilize community feedback and IQ to continuously improve Project planning and execution (also see Section 4.2).

#### 4.1.1 Process for Including IQ in Monitoring Programs

Baffinland's monitoring programs have been developed with direct consideration of IQ where it is available, and often with direct Inuit input and involvement. Baffinland also funds the cost of a full-time QIA employee to be on site as an Environmental Monitor for the Project as per the IIBA. Additional details on Baffinland's use of IQ in its monitoring programs are provided below.

- Baffinland's monitoring programs incorporate community input and IQ, where appropriate. This occurs primarily through the Mittimatalik Hunters and Trappers Organization's (MHTO) participation in the MEWG, TEWG, and QSEMC/SEMWWG processes, when members review Baffinland's monitoring results and comment on Project monitoring plans. Baffinland will continue to participate in these processes moving forward.
- As part of the annual pre and post-shipping meetings in Pond Inlet, an overview of the marine monitoring programs are provided and input from MHTO members into the design of the programs and analysis of the results is gathered. This circular consultation process on the marine monitoring programs has, for example, resulted in improved methods for detecting narwhal during observations, included additional fish capture for body burden analysis, and led to an expansion of the aquatic invasive species program to include sampling locations at Ragged Island.

- Project monitoring/management plans contain adaptive management components and have been designed so that Project programs/performance can be adjusted in response to community input and IQ received as necessary.
- To capture IQ and community feedback received on the monitoring programs, Baffinland has committed to revising applicable monitoring plans to include a section entitled 'Use of Community Input and IQ in the Monitoring Program'. These sections will be updated with each new iteration of the plans, to track the evolution of the plans based on community feedback.
- Baffinland has committed to continue training and hiring Inuit to work on the monitoring programs with the aim of enhancing program design in a manner that best complements a combination of IQ and scientific knowledge.

## 4.2 Adaptive Management and Future Work

As part of a broader initiative Baffinland commits to review and reconsider its Adaptive Management Memo in light of comments received during the technical review of Phase 2. Building off of the existing adaptive management processes already implemented, Baffinland will reconsider its framework for adaptive management and specifically address how IQ, in all of its forms, will explicitly be used in this process. Components of this framework could include appropriate engagement methods; methods and protocols for the collection of IQ; identification of mechanisms for integrating community feedback including IQ into management documents, decisions, and monitoring; and Project milestones where the inclusion of IQ will be specifically sought. This framework is also anticipated to include a communication plan, so that Baffinland is able to inform communities, QIA and other stakeholders how engagement outcomes continue to influence the Project.

An update on this will be provided in advance of final written submissions and no later than July 10, 2019.



## APPENDIX A: SELECT LIST OF COMMUNITY MEETINGS\*

Event Name	Community	Meeting Type	Event type (ST)
2014-02-19 - Arctic Bay - Arctic Bay Hamlet Meeting	Arctic Bay	Hamlet	Public Meeting
2014-02-19 - Arctic Bay - Town Hall Meeting	Arctic Bay	Public Meeting	Public Meeting
2015-02-19 - Arctic Bay - Public Forum/Meeting	Arctic Bay	Public Meeting	Public Meeting
2015-02-19 - Arctic Bay Hamlet - Public Forum/Meeting	Arctic Bay	Hamlet	Public Meeting
2016-05-05 - Arctic Bay - Workshop No. 5	Arctic Bay	TK Workshop	TK Workshop
2016-05-07 - Arctic Bay - Workshop No. 5 - Phase 2 Open House	Arctic Bay	TK Workshop	TK Workshop
2016-11-23 - Arctic Bay - Hamlet Meeting	Arctic Bay	Hamlet	Community Group Meeting
2016-11-23 - Arctic Bay - Public Forum/Meeting	Arctic Bay	Public Meeting	Public Meeting
2016-11-23 - Arctic Bay HTO - Meeting with AB HTO (Nov Community Tours)	Arctic Bay	HTO	Community Group Meeting
2017-05-31 - Arctic Bay - Community Meeting	Arctic Bay	Public Meeting	Public Meeting
2017-05-31 - Arctic Bay - Hamlet Meeting	Arctic Bay	Hamlet	Community Group Meeting
2017-05-31 - Arctic Bay - HTO Meeting	Arctic Bay	HTO	Community Group Meeting
2018-06-13 - Arctic Bay - Workshop	Arctic Bay	Other Community Groups	Meeting – Group
2018-11-19 - Phase II Consultation Meeting - Arctic Bay	Arctic Bay	Other Community Groups	Community Group Meeting
2019-01-09 - Arctic Bay - Phase II Community Consultation	Arctic Bay	Other Community Groups	Community Group Meeting
2014-02-17 - Baffinland Community Tour Pond Inlet - Clyde River (2)	Clyde River	Public Meeting	Public Meeting

Event Name	Community	Meeting Type	Event type (ST)
2015-02-17 - Clyde River Community - Public Forum/Meeting	Clyde River	Public Meeting	Public Meeting
2016-11-21 - Clyde River - Hamlet Meeting	Clyde River	Hamlet	Community Group Meeting
2016-11-21 - Clyde River - Public Forum/Meeting	Clyde River	Public Meeting	Public Meeting
2017-05-29 - Clyde River - Community Meeting	Clyde River	Public Meeting	Public Meeting
2017-05-29 - Clyde River - Hamlet and HTO Meeting	Clyde River	Hamlet	Community Group Meeting
2017-05-29 - Clyde River - Hamlet and HTO Meeting (2)	Clyde River	HTO	Community Group Meeting
2018-06-11 - Clyde River - Workshop	Clyde River	Other Community Groups	Meeting – Group
2019-01-11 - Clyde River - Phase II Community Consultation	Clyde River	Other Community Groups	Community Group Meeting
2014-02-20 - Hall Beach - Town Hall	Hall Beach	Public Meeting	Public Meeting
2015-02-20 - Hall Beach Community - Public Forum/Meeting	Hall Beach	Public Meeting	Public Meeting
2016-11-25 - Hall Beach - Hamlet Meeting	Hall Beach	Hamlet	Community Group Meeting
2016-11-25 - Hall Beach - Public Forum/Meeting	Hall Beach	Public Meeting	Public Meeting
2017-06-02 - Hall Beach - Community Meeting	Hall Beach	Public Meeting	Public Meeting
2017-06-02 - Hall Beach - HTO and Hamlet Meeting	Hall Beach	HTO	Community Group Meeting
2018-06-15 - Hall Beach - Workshop	Hall Beach	Other Community Groups	Meeting – Group
2019-01-07 - Hall Beach - Phase II Community Consultation	Hall Beach	Other Community Groups	Community Group Meeting

Event Name	Community	Meeting Type	Event type (ST)
2014-02-20 - Igloolik - Town Hall	Igloolik	Public Meeting	Public Meeting
2015-02-20 - Igloolik Community - Public Forum/Meeting	Igloolik	Public Meeting	Public Meeting
2016-11-24 - Igloolik - Hamlet Meeting	Igloolik	Hamlet	Community Group Meeting
2016-11-24 - Igloolik - Public Forum/Meeting	Igloolik	Public Meeting	Public Meeting
2017-06-01 - Igloolik - Community Meeting	Igloolik	Public Meeting	Public Meeting
2017-06-01 - Igloolik - Hamlet Meeting	Igloolik	Hamlet	Community Group Meeting
2017-06-01 - Igloolik - HTO Meeting	Igloolik	HTO	Community Group Meeting
2018-01-08 - Igloolik - Phase II Community Consultation	Igloolik	Other Community Groups	Community Group Meeting
2018-06-14 - Igloolik - Workshop	Igloolik	Other Community Groups	Meeting – Group
2014-02-17 - Baffinland Community Tour Pond Inlet - Clyde River	Pond Inlet	Public Meeting	Public Meeting
2014-02-17 - Baffinland Community Tour Pond Inlet - Pond Inlet/HTO Meeting	Pond Inlet	HTO	Public Meeting
2014-02-18 - Pond Inlet - Community Meeting	Pond Inlet	Public Meeting	Public Meeting
2014-02-18 - Pond Inlet - HTO Meeting	Pond Inlet	HTO	Community Group Meeting
2014-12-02 - Pisiksik - Pond Inlet CAG Meeting	Pond Inlet	Other Community Groups	Community Group Meeting
2015-02-18 - Pond Inlet Community - Public Forum/Meeting	Pond Inlet	Public Meeting	Public Meeting
2015-02-18 - Pond Inlet Hamlet - Public Forum/Meeting	Pond Inlet	Hamlet	Public Meeting

Event Name	Community	Meeting Type	Event type (ST)
2015-02-18 - Pond Inlet Hunters and Trappers Organization - Public Forum/Meeting	Pond Inlet	Other Community Groups	Community Group Meeting
2015-03-03 - Pond Inlet - Workshop No. 1	Pond Inlet	TK Workshop	TK Workshop
2015-04-27 - Pond Inlet - Workshop No. 2	Pond Inlet	TK Workshop	TK Workshop
2015-04-30 - Pond Inlet - Workshop No. 2 - Shipping Through Ice Open House	Pond Inlet	TK Workshop	TK Workshop
2015-10-26 - Pond Inlet - Workshop No. 3	Pond Inlet	TK Workshop	TK Workshop
2015-10-28 - Pond Inlet - Workshop No. 3 - Open Water Shipping	Pond Inlet	TK Workshop	TK Workshop
2015-11-20 - Pond Inlet - Workshop No. 4	Pond Inlet	TK Workshop	TK Workshop
2016-05-08 - Pond Inlet - Workshop No. 4 - Caribou Open House	Pond Inlet	TK Workshop	TK Workshop
2016-05-09 - Pond Inlet - Verification Meeting	Pond Inlet	TK Workshop	TK Workshop
2016-11-22 - Pond Inlet - Hamlet Meeting	Pond Inlet	Hamlet	Community Group Meeting
2016-11-22 - Pond Inlet - Public Forum/Meeting	Pond Inlet	Public Meeting	Public Meeting
2016-11-22 - Pond Inlet HTO - Meeting with HTO (Nov Community Tour)	Pond Inlet	HTO	Community Group Meeting
2016-12-06 - Pond Inlet - Winter Shipping and Resupply	Pond Inlet	Public Meeting	Public Meeting
2017-05-30 - Pond Inlet - Community Meeting	Pond Inlet	Public Meeting	Public Meeting
2017-05-30 - Pond Inlet - Hamlet Meeting	Pond Inlet	Hamlet	Community Group Meeting
2017-05-30 - Pond Inlet - HTO Meeting	Pond Inlet	HTO	Community Group Meeting
2017-11-10 Pond Inlet Health Fair	Pond Inlet	Public Meeting	Public Meeting
2017-12-04/05- NPC NBRLUP Amendment- Public Hearing- Pond Inlet	Pond Inlet	Public Meeting	Public Meeting

Event Name	Community	Meeting Type	Event type (ST)
2018-06-07 - HTO Pond Inlet	Pond Inlet	HTO	Community Group Meeting
2018-06-12 - Pond Inlet - Workshop	Pond Inlet	Other Community Groups	Meeting – Group
2018-08-30 - Pond Inlet HTO - Meeting	Pond Inlet	HTO	Meeting – Group
2018-08-31 - Pond Inlet HTO - Meeting	Pond Inlet	HTO	Meeting – Group
2018-11-21 - Phase II Consultation - Pond Inlet	Pond Inlet	Other Community Groups	Community Group Meeting
2018-11-28-29 - Pond Inlet HTO Meeting	Pond Inlet	HTO	Meeting – Group
2019-January Phase II Community Consultation	Pond Inlet Arctic Bay Clyde River Hall Beach Igloolik	Other Community Groups	Community Group Meeting
2019-01-14 - North Baffin Communities - Impact and Mitigation Workshop at Mary River Site	Various	Mary River Mine Site	Risk and Mitigation Community Workshop
2019-01-30 Baffinland and MHTO	Pond Inlet	Community Groups	Community Group Meeting
2019-02-11 to 14 - North Baffin Communities - Impact and Mitigation Workshop at Trois Rivières	Various	Community Groups	Risk and Mitigation Community Workshop

\*Baffinland is providing this list of community meetings as examples, this is not a comprehensive list of all meetings or meeting-types that Baffinland participates in. Additional details on Baffinlands engagement efforts are outlined in the Annual Reports to NIRB