IR Number: 1
Source: Qikiqtani Inuit Association
To: Baffinland, Nunavut Wildlife Management Board
Subject: **Harvesting and Cultural Well-Being**
Preamble:
The Proponent presents an argument that the Project fits into pre-existing forces of cultural change, including the suggestion that the trend among youth is away from harvesting activities and toward a wage economy (Vol. 4, section 14.1.1, p188). The DEIS also states that "under current conditions it is expected that the proportion of the population able to participate in active land-based economy livelihoods will continue to decline in the absence of the wealth that would be generated by the Project." (Vol. 4, section 4.1.2, p41).

During community consultations, Inuit have voiced concerns regarding the need for money to support harvesting activities and challenges in ensuring the intergenerational transfer of transfer of land-based skills. Yet the Proponent's conclusions above can be debated.

The Conference Board of Canada, in the *2001 Nunavut Economic Outlook*, identifies the following as a key societal value: "Land-based economic activity is an important part of life and must be supported. There is no evidence to suggest that land-based economic activity is valued less than participation in the wage economy." (pVII) The *Outlook* goes on to acknowledge, "A key matter will be whether these values are in fact important to Nunavut's younger population and what balance Nunavummiut want to have between the land-based and wage economies." (p VII) However this statement is clearly posed as a question and the *Outlook* indicates the need for new research <u>before conclusions can be made</u>. (emphasis added)

The *2010 Nunavut Economic Outlook* states that, "The economic implications of any changes in the non-wage economy cannot be underappreciated. When it comes time to investigate this component of Nunavut's economy in conjunction with the *Nunavut Economic Outlook*, we become concerned when no new information is available – <u>not just because it makes reporting on trends and their implications difficult</u>, but because it means Nunavut has gone another year or two without recognizing and preparing a response to a threat to the current land-based economy. (p38) (emphasis added)

Dr. P.J Usher, in a 1981 paper based on his research and that of others, discusses the future of native wildlife harvesting in northern Canada. The paper suggests that increased access to wages will in fact go to help support more and better equipment for harvesting. "So long as northern regions remain marginal then regardless of the availability of alternative income and imported substitutes, the traditional harvesters of fur, fish and game will continue to regard these resources as important and even essential to their long-term security, their cultural identity, their socio-economic status, and their general well-being." (p6)

Brubacher and Associates explores the question of harvesting in a context influenced by mining in the *The Nanisivik Legacy in Arctic Bay* (2002). The report concludes that income earned contributed to the involvement in the traditional economy and helped maintain and possibly

strengthen social networks of sharing. The potential concern that children of mine workers would be less exposed to traditional skills was not supported by community interviews. (pVI)
Finally, the report *Implementing the Troilus Agreement* describes the implementation and effectiveness of a work rotation schedule specifically for the purpose of enabling Native employees to carry on traditional activities. (p9)

The presence of the Project could accelerate change in a direction that not everyone supports, potentially creating anxiety around the loss of land-based skills and of cultural identity. This speaks to the question of levels of acceptable risk. For example, the DEIS states that "Project-related disturbances to narwhal that affect the distribution of narwhal may affect Inuit harvesting of narwhal in this area. Given that Milne Inlet is only one area of hunting, and disturbance effects at that location are expected to be modest, harvesting activities of narwhal are not expected to be meaningfully affected." (Vol. 4, section 10.4.2, p161) Such a conclusion makes the assumption that Inuit move easily to other harvesting without hesitation and may be ignoring the consequences of removing a favoured and well understood harvesting area.

Request:

1. It is requested that harvesting and associated cultural meaning be reconsidered as a Key Indicator and that it is treated to a full impact analysis and cumulative effects assessment. Given the many statements made by Inuit and recorded in the DEIS that emphasize the importance of wildlife harvesting to Inuit, the impact assessment should include an exploration of levels of acceptable risk to harvesting activities from an Inuit perspective.
2. It is requested that organizations such as the Nunavut Wildlife Management Board also be engaged on these topics.

IR Number: 2
Source: Qikiqtani Inuit Association
To: Baffinland
Subject: **Distribution of Impacts and Benefits**
Preamble:

There is concern that the uneven distribution of impacts and benefits within and between communities will bring undesirable changes that can affect overall quality of life. More specifically, there is the potential for the gap the between 'have' and 'have not' groups to grow wider over time. This issue may arise if opportunities presented by the Project can only be captured by a small proportion of the population. For example, those that already have sufficient life skills, education, and support at home are most likely to secure jobs and associated income. While others (who may already be vulnerable or who become vulnerable due to adverse impacts) remain disadvantaged or become progressively worse off.

Request:

1. It is requested that the Proponent assess the distribution of impacts within and between communities as a Subject of Note, including any potential effects on community cohesiveness. The discussion should refer to data from the Project Definition phase as well as experience from other relevant Projects such as the Raglan Mine in Nunavik and Voisey's Bay in Labrador.
2. It is requested that the Proponent comment on the availability of quantitative data (at the scale of the community or the aggregated North Baffin communities) to support indicators that measure inequities (e.g., income distribution by skill category, Gini coefficient for household income, etc.), as well as the appropriateness of such data and indicators in the Nunavut context.

IR Number: 3
Source: Qikiqtani Inuit Association
To: Baffinland
Subject: **Effective Mitigation**
Preamble:

Impact significance conclusions in Volume 4 rely heavily on the success of mitigation measures, whether they are aimed at minimizing negative impacts or realizing benefits. Citing just two examples:

- Regarding the wellbeing of children: "By avoiding, detecting, and addressing adverse outcomes experienced by children, the accumulation of negative effects in the population of children will be minimized, thereby avoiding higher levels of concern." (Vol. 4, section, 6.3.3, p90)
- Regarding job advancement: "[W]ith the mitigation described in the [Human Resource Management Plan (Appendix 10-F3)], including a corporate vision that is dedicated to Inuit advancement, along with more 'mechanical' training initiatives that are planned, the Project is considered to represent a major opportunity for local residents to expand their employment and career development options." (Vol. 4, section, 4.4.3.1, p59)

In addition, socio-economic mitigation measures frequently depend upon the cooperation of several parties. From the first example above on ensuring the wellbeing of children: "While Baffinland can provide assistance (both financial and managerial support), the active participation of the community, the administrative Inuit organization, and third party involvement are paramount for the success of these programs." (Vol. 4, section 6.3.3, p90)

There are many risks and uncertainties involved in predicting outcomes and implementing largely untested mitigation measures. Further risks are added when more than one agency or organization is responsible for implementation and success. The Proponent appropriately points to monitoring, precautionary measures, and adaptive management as the means to adjust and manage mitigation over time (Vol. 10, section, 1.2, p5-6). To this end, requests for information on mitigation are made below, while requests regarding monitoring and compliance follow in subsequent Information Requests.

Request:

1. It is requested that the Proponent survey northern mines or relevant projects in other locations that have implemented mitigation measures similar to those proposed by the Proponent, and compile the lessons learned about their effectiveness and actual outcomes.
2. It is requested that the Proponent provide an analysis of potential risks to the effective implementation and outcomes of proposed mitigation measures and management plans, and what can be done to reduce these risks.

IR Number: 4
Source: Qikiqtani Inuit Association
To: Baffinland, Q-SEMC and NIRB
Subject: **Monitoring and Intervention**
Preamble:

Ongoing socio-economic monitoring, and feedback of this information into decision making and management, is critical to minimizing adverse impacts and realizing benefits. The DEIS Guidelines issued by NIRB call for the description of socio-economic monitoring plans and mitigation programs, including how the Proponent will identify, react and mitigate potentially adverse socio-economic impacts and augment positive socio-economic impacts in association with Management plans that correspond to the socio-economic impacts assessment. These plans must also contain appropriate monitoring and evaluation techniques (e.g., indicators) that will allow regulators to intervene in a timely and constructive manner. (p73-74)

The Baseline report states that it "identifies indicators that will be of use in ongoing monitoring programs" (Appendix 4A, section1.1.3, p1) and Table 4-14.2 (Vol. 4, p192) summarizes the general suggestions made toward socioeconomic monitoring and indicators in Volume 4 – Human Environment. Yet a clear list of proposed indicators was not provided. In addition, the Stakeholder Engagement Plan and Human Resources Management Plan describe communications, data collection and complaint mechanisms, and required reporting but also do not propose indicators or outline intervention plans.

Several references were made in the DEIS to the importance of monitoring the direct and indirect impacts of the Project, the effectiveness of mitigation measures and management plans, and the need for a cooperative and coordinated monitoring effort (see for example, Vol. 4, section 13.3,p184; Vol. 4, section, 14.2, p189; and Vol. 4, section 14.3, last paragraph). The DEIS states that a monitoring plan will be developed in the future (Vol. 4, section, 14.2, p189).

It is recognized that community-based monitoring requires the cooperation of all parties. In its findings, the Voisey's Bay Mine and Mill Environmental Assessment Panel stated: "The Panel concludes that monitoring of socio-economic impacts would be an essential part of an effects monitoring program. While government and community agencies should take the primary responsibility for such monitoring, [Voisey's Bay Nickel Company] also has a role to play." (p7)

An added concern is that developing a monitoring program and indicators that are useful in decision making requires substantial amounts of time and effort to work through issues related to data quality and consistency, information flow, cohesiveness, efficiency, links to management, and more. However, impacts are already occurring and there is a risk that building the necessary capacity for monitoring and implementing a comprehensive and coordinated program will delay effective monitoring further. Delays in developing indicators and implementing monitoring programs may mean that changes from the baseline cannot be measured or that information lags preclude timely intervention.

Request:

1. It is requested that the Proponent specify at what stage and by what process it will develop a comprehensive and coordinated monitoring program and an initial set of indicators to monitor the effects of the Project and mitigation measures. Without this information at the Review stage, it is very difficult to 'get a handle' on the determination of significance and how affects will or even can be monitored.
2. It is requested that, as partners in the Q-SEMC, the Proponent and Committee members comment on the expertise and support that each can provide to ensure that the Committee has the capacity to perform effective monitoring.
3. Rapid intervention in regard to adverse socio-economic impacts is critical. It is requested that the Proponent describe what mechanisms it will include in the monitoring plan to ensure that information flows from all monitoring initiatives (Project, Q-SEMC, and perhaps others) in time to trigger and implement corrective actions.
4. It is requested that the Proponent comment on the extent and ways that monitoring associated with the IIBA could be coordinated with these other monitoring efforts in order to avoid redundancy in data collection and to obtain a more complete picture of impacts and benefits to Inuit.

IR Number: 5
Source: Qikiqtani Inuit Association
To: Baffinland and Government of Nunavut
Subject: **Assurances of Compliance**
Preamble:

It is acknowledged that the realization of benefits and minimization of adverse outcomes to Inuit and the communities requires the sincere and persistent efforts of several stakeholders. On many occasions, the Proponent has stated its commitment to social responsibility and willingness to cooperate with and support other parties in socio-economic matters .

However, unlike environmental regulations or licences, socio-economic commitments outside an IIBA are not subject to ramifications if they go unmet. The likelihood of a successful Project would be significantly increased by the development of mechanisms to ensure accountability on the part of all stakeholders engaged in specific activities and projects.

Request:

1. It is requested that the Proponent produce a summary list of the project certificates and attached terms and conditions granted to mines in Nunavut and the Northwest Territories over the last 20 or so years.
2. It is requested that the Proponent and the Government of Nunavut elaborate on the anticipated content and process involved in creating a Development Partnership Agreement (DPA), such as the one mentioned in Vol. 4, section, 13.2, p185.
3. It is requested that the Proponent state its willingness to cooperate with the QIA to draft a Socio-economic Table of Commitments as a major tool in overall Project mitigation and management. This Table would list specific commitments, such as payments to a community support fund or agreement to implement a training program. The Table would include all responsible authorities, timelines and criteria to meet, and any consequences for non-compliance. All responsible authorities would have to agree and sign off on listed Commitments. The Table would be subject to periodic review and independent audit.
4. The Proponent states that its Environmental Health and Safety (EHS) management system is also consistent with ISO 14001:2004 (Environmental) Management System standards. It is requested that the Company comment on its intent to pursue formal ISO 14001 Certification (and the reasons why if it does not intend to pursue Certification).

IR Number: 6

Source: Qiqiktani Inuit Association
To: Baffinland, NIRB, DFO
Subject: **Study Area Boundaries**

Preamble:
The Regional Study Area (RSA) for the marine assessment was defined as "the area within which there exists the potential for direct, indirect, and/or cumulative biophysical and socio-economic effects including potential transboundary effects related to shipping activities." (DEIS Vo. 8: pg, 4, pgph. 4 to pg. 8 pgph. 2). This is a reasonable definition, since shipping-related impacts within Canadian waters do not stop at the Nunavut boundary. Unfortunately, this definition was not followed in the marine baseline studies, as they did not study or consider portions of the shipping routes that extend southeastward from Pond Inlet and Hudson Strait (e.g., DEIS Vol. 8, Appendix A2, pg. 2, Fig. 1.1). Both of these routes pass through important, well-used marine mammal habitats. Instead, the RSA ended at the eastern boundary of the Nunavut Settlement Area. The Local Study Areas (LSAs) also appears to be restricted to Nunavut waters (DEIS Vol 8, pg. 4, pgph.4), but is shown in Figure 8-2.1 as extending outside these boundaries to include waters of Hudson Strait that are not included in the RSA.

Request:
1. It is requested that the Proponent clearly confirm their understanding of LSA and RSA boundaries for the marine environment. The use of maps is encouraged.
2. Given the significant increase in vessel traffic, it is requested that the Proponent and NIRB confirm whether other Canadian waters outside the Nunavut Settlement Region are considered as part of the LSAs and RSA.
3. It is requested that clarity be given as to how will concerns over impacts to marine habitats and biota outside the RSA and LSA be considered.
4. It is requested that the Proponent clearly indicate the entire length of all proposed shipping route(s), from point of ore loading, to point of ore off-loading, for the entire project lifespan. If delivery ports are uncertain they should be ranked in order of greatest likelihood and frequency of visits.

IR Number: 7
Source: Qiqiktani Inuit Association
To: Baffinland
Subject: **Underwater Noise Thresholds (Seals and Walruses)**
Preamble:

To protect against hearing loss the United States National Marine and Fisheries Service (2000) recommended that whales not be exposed to impulse sounds of greater than 180 dB re 1 uPa (rms) but kept the limit for pinnipeds (e.g., seals and walrus) at 190 dB re 1 uPa (rms). The Proponent has used these thresholds to assess noise impacts from construction at the ports (e.g. DEIS Vol. 8: pg. 148, pgph. 3; 174, Table 8-5.5; 175, pgph. 4). The California Coastal Commission has limited the maximum sound exposure level to 180 dB re 1 uPa (rms) for all marine mammals. A precautionary approach to impact assessment would be to also follow the lower limits for impulse sound for seals and walruses.

Request:

1. It is requested that the Proponent confirm whether they intend to implement more precautionary noise exposure levels for seals and walruses?

IR Number: 8
Source: Qiqiktani Inuit Association
To: Baffinland
Subject: **Vessel Impacts on Pack Ice**
Preamble:

Calculations of pack-ice disruption appear to assume that ships disturbing and re-disturbing moving pack ice along the shipping route all winter will have the same impact as a single ship track (e.g., DEIS Vol. 8, pg. 11, pgphs. 4&5; pg 13, Table 8-2.1). This assumption may not be valid. Likewise, quick infill of a ship track does not mean that the impacts are fleeting. Certain impacts such as mortality are permanent and not reversible.

Given that 136 vessel transits are expected during the period when landfast ice is present, (DEIS Vol.8, pg. 13), and using this as a proxy for the number of transits that may occur when pack ice is present, there could be up to 136x the impact predicted.

This would translate to disruption of ~6.8% of the pack ice in the LSA (i.e., 0.05 x 136). This only considers the width of the ship, not any disruption of ice adjacent to the track. It is difficult to understand why this potential level of disruption has been treated as a Subject of Note rather than a Key Issue.

Impacts to marine mammals from icebreaking are not confined to the narrow width of the ship track. Both ringed seals and walruses show avoidance behavior at a distance of at least 1 km. This means that the swath of affected habitat for the purpose of assessing impacts on marine mammals is much wider than just the area broken by the ship itself.

If the ships must change tracks they will disrupt different ice tracks on a daily, weekly, or perhaps monthly basis depending upon how often they must change. If they do not have to change tracks marine mammals that enter the disturbed track will be at risk. Vessels meeting one another will also have to follow separate tracks for at least some of the time.

Request:

1. It is requested that the Proponent clearly explain the rationale underlying Table 8-2.1 (DEIS Vol. 8).
2. It is requested that the Proponent confirm how avoidance reactions of marine mammals have been taken into account in the assessment of impacts to marine mammals from vessel traffic in pack ice.
3. It is requested that the Proponent confirm whether impact predictions are sensitive to the degree of disruption of the pack ice.
4. It is requested that the Proponent produce a series of impact predictions demonstrating the influence that the number of vessel tracks has on impact predictions for pack ice.

Impact predictions should be presented for lower and high shipping frequencies than suggested in the Project Description.

5. It is requested that the Proponent confirm why the disruption of pack ice is not considered a Key Issue.

Note: This information request should be considered in parallel with Information Request 32, Shipping Route Sensitivity Analysis.

IR Number: 9
Source: Qiqiktani Inuit Association
To: Baffinland
Subject: **Icebreaker Disruption of Landfast Ice**
Preamble:

Given that this Project may require ice breaking on a scale unprecedented in the Canadian Arctic, there is significant uncertainty related to the reuse of ship tracks, physical disruption of the landfast ice, and disruption to marine biota. Disruption to landfast ice may be localized around the ship track but if the ships cannot follow the same track at least 7 times as predicted (DEIS Vol. 8, pg. 16, pgph. 2), they may disrupt a substantially larger area of landfast ice. Ships visiting the Raglan Mine are able to reuse the ship track but this may not be possible for Steensby Inlet given winter ship traffic that will be at least an order of magnitude greater, and ice that may be substantially thicker. The impact predictions for landfast and pack ice are also predicated on the area of each ice type remaining within a set range. These uncertainties are not adequately reflected in the DEIS.

Request:

1. It is requested that the Proponent confirm whether impact predictions related to landfast ice and its use are sensitive to changes in the number of vessel tracks into the Steensby Inlet Port.
2. It is requested that the Proponent produce a series of impact predictions demonstrating the influence that the number of vessel tracks has on impact predictions for landfast ice. Impact predictions should be presented for lower and high shipping frequencies than suggested in the Project Description.
3. It is requested that the Proponent describe how sensitive impact predictions are if the extent of the landfast ice decreases (due to climate change and other factors) such that shipping disrupts a greater percentage of the remaining fast ice, and breeding habitat for the ringed seal becomes more concentrated.

Note: This information request should be considered in parallel with Information Request # 32 Shipping Route Sensitivity Analysis.

IR Number: 10
Source: Qiqiktani Inuit Association
To: All Parties
Subject: **Impact Assessment Thresholds**
Preamble:

A threshold of 10% has been used widely Volumes 8 and 9 of the DEIS to assess the significance of various impact predictions, although a 20% threshold was used to assess the magnitude of effect on marine fish habitats (DEIS VOl. 8, Table 8-4.7).

Request:

1. It is requested that the Proponent present rationale for the 10% and 20% thresholds.
2. It is requested that clarity be provided as to whether it is reasonable to apply the same 10% threshold to assess the broad range of different impacts found in the DEIS.

IR Number: 11
Source: Qiqiktani Inuit Association
To: Baffinland
Subject: **Mitigation of Vessel Impacts**
Preamble:

Many gaps remain in the understanding of the seasonal use by marine mammals of areas potentially impacted by the ship tracks. There is also significant uncertainty regarding how many ship tracks will be required and what impacts they may have on ice habitats and the marine mammals that use them. These knowledge gaps, and the difficulty of filling them, raise the importance of adaptive management responses to impacts that are identified only after shipping has begun. Consequently, is it very important to understand what meaningful adaptive management measures are feasible for the Proponent and will be implemented should they be required.

The Proponent has indicated that shipping routes and vessel speeds could be changed slightly to mitigate impacts from ice breaking (DEIS Vol. 8, pg. 19, pgph. 4). The degree to which the experience that other commercial mining projects has influenced mitigation measures and management plans is not clear from a review of the DEIS; neither is the applicability of measures from these smaller operations to the proposed project. For instance, it is not apparent whether the proponent has even considered seasonal shipping closures during critical seasonal and lifecycle stages, something that is practiced by other operations where icebreaking has a relationship to marine mammals, community travel, and, harvesting.

Request:

1. It is requested that the Proponent describe all possible adaptive management measures that would be feasible as means of mitigating vessel impacts from the Project.
2. It is requested that the Proponent clearly describe how sensitive the Project is to changes in the routing, timing, and number of vessel transits.
3. It is requested that the Proponent clearly and comprehensively present what is known about activities of other commercial icebreaking operations including how mitigation measures were developed relative to impact predictions. In presenting such information the Proponent should clearly state whether consideration has been given to all pertinent information related to mitigation measure development, and whether mitigation measures from smaller and/or more southerly mining operations are applicable to the proposed Project.
4. It is requested that the Proponent describe whether the application of mitigation measures specific to land fast ice formation have been considered.
5. It is requested that the Proponent describe whether the application of mitigation measures specific to wildlife sensitivities, such as key life cycle stages, have been considered.

Note: This information request should be considered in parallel with Information Request # 32 Shipping Route Sensitivity Analysis.

IR Number: 12
Source: Qiqiktani Inuit Association
To: Baffinland and NIRB
Subject: **Project Expansion**
Preamble:

Throughout the DEIS the Proponent notes that increasing project production is possible in the future and that this increase in vessel traffic may exceed thresholds established for disturbance and displacement of VEC's (DEIS Vol. 9, pg. 37-38). There is already uncertainty with respect to potential impacts from the Project, as presented; any significant increase in production will magnify that uncertainty.

Request:

1. It is requested that the Proponent confirm whether increasing project production rates, and therefore that shipping frequency, will be included as part of the DEIS.
2. It is requested that the Proponent state when and how plans to expand the project production rate will be formalized and made publically available. In providing details on this topic is the Proponent prepared to discuss the sensitivity of impact predictions in the DEIS relative to an increase in Project production.
3. It is requested that the Proponent present a list of all project infrastructure (e.g., DEIS Vol. 3, Table 3-2.1) and indicate whether or not each component is being designed to accommodate a higher production rate?
4. It is requested that NIRB describe how increasing project production rates, and therefore that shipping frequency, would be addressed for two scenarios; where the Proponent elects to modify the current Project Proposal during the current Part 5 Review, or, where the Proponent elects to modify the Project Plans following the conclusion of the current Part 5 Review.

IR Number: 13
Source: Qiqiktani Inuit Association
To: Baffinland and NIRB
Subject: **Document Requests**
Preamble:
The following documents were referred to in the DEIS but could not be located in appendices:

North/South Consultants Inc. 2008a. Freshwater aquatic environment baseline report: fish and fish habitat, 2007. A report prepared for Knight Piesold Ltd by North/South Consultants Inc., Winnipeg, MB. 182 pp + appendices.

North/South Consultants Inc. 2008a. Freshwater aquatic environment baseline report: lake limnology and lower trophic levels, 2007. A report prepared for Knight Piesold Ltd by North/South Consultants Inc., Winnipeg, MB. 115 pp + appendices.

These documents provide details of study methodology not contained in the DEIS and may be useful for its interpretation.

Request:

1. It is requested that the Proponent provide NIRB and all other parties with electronic copies of non-sensitive background documents that were not included in the DEIS.

IR Number: 14
Source: Qiqiktani Inuit Association
To: Baffinland
Subject: **Aircraft Noise**

Preamble:
Significance of aircraft disturbance to VEC's in the project area cannot be determine without detailed information related to daily noise from fixed-wing large aircraft and helicopters (e.g., DEIS Vol. 8, pg. 165).

Request:
1. It is requested that the Proponent provide a map detailing the proposed runway alignment and approach plate for all airstrips in the project area together with a noise contour map.
2. It is requested that the Proponent develop a map detailing the proposed flight paths for all aircraft (including helicopters) for the life of the project including on-going exploration activities. Maps should be prepared for both the LSA and the RSA. Maps should be supported by text describing flight path frequency.

IR Number: 15
Source: Qiqiktani Inuit Association
To: Baffinland
Subject: **Invasive Species (Ballast Water and Ship Surfaces)**
Preamble:

The potential for introduction of invasive species in ballast water or on the surfaces of ships visiting the Project may exist. The total annual ballast water discharge from the 102 ore carriers vessels expected to visit Steensby Inlet each year would be 20.4 million cubic meters (i.e., 200,000 cubic m x 102 ships) (DEIS Vol. 8, pg 17,pgph. 4). In winter all of this water will be discharged at the dock (DEIS Vol. 8, pg. 55, pgph. 6). A large volume of ballast water will also be exchanged in Milne Inlet during the open water period. The Proponent expects that adherence to legal requirements (or alternatively, treatment) will be effective mitigation to address concerns regarding the introduction of invasive species in ballast water (DEIS Vol. 9, pg. 39, pgph 4).

The risk that foreign coastal biota may be introduced and become established in the eastern Canadian Arctic will vary depending upon on the location(s) of the port(s) to which the ore is delivered. The degree of risk can also increase if ballast water exchange or treatments are ineffective for reducing the number of organisms in ballast water that is released at the Milne and Steensby ports. The frequency of introduction and conditions at the receiving port are also determinants of risk of species establishment. Various methods of treating ballast water have been approved for use by international shipping, and treatment may be required within the lifetime of the project.

Request:

1. It is requested that the Proponent confirm if vessels visiting the ports at Milne Inlet and Steensby Inlet will be treating their ballast water before it is released. If so, what treatment method(s) will be used.
2. It is requested that the Proponent confirm what studies be conducted to assess and monitor the risk of species introductions.
3. It is requested that the Proponent confirm the expected destination ports for iron ore from Mary River.
4. It is requested that the Proponent confirm if risk analysis been conducted for invasive aquatic species that might be released in Canadian waters by vessels visiting the proposed mine.
5. It is requested that the Proponent describe what anti-fouling will be used on the ore carrier hulls. This includes describing the types of chemicals, their quantities, and the risk they may pose to biota in the environment along the ship track and in port.

IR Number: 16
Source: Qiqiktani Inuit Association
To: Baffinland
Subject: **Project Description**
Preamble:
Baffinland Iron Mines Corporation (2011) has undergone a corporate takeover. In all likelihood the new owners of the Project will alter the direction and pace of development plans.

Request:

1. It is requested that the Proponent clarify whether the Project Description in the DEIS (Vol. 3) accurately reflects how the Project would be constructed, operated, and closed under current Project ownership.
2. It is requested that the Proponent describe whether changes in the Project Description will alter parameters used for impact prediction.

IR Number: 17
Source: Qiqiktani Inuit Association
To: Baffinland
Subject: **Marine Sediment Disturbance**
Preamble:
Deep-draft ship propellers are expected to mobilize seabed sediment at a distance of up to 100 m (DEIS Vol. 8, p. 54, pgph 2). Given that there is likely to be more maneuvering in the vicinity of the Steensby Inlet Ports in winter, when ice breaking is require, this disturbance could be greater when ice is present than in open water.

Request:

1. It is requested that the Proponent describe the extent of the area where sediments may be disturbed at the Milne Inlet and Steensby Inlet ports.
2. It is requested that the Proponent describe how winter ice breaking and maneuvering by ships arriving in ballast, working to maintain ice, and loaded with ore or supplies been factored into the habitat disturbance estimates provided in Table 8.4-11 (DEIS Vol. 8, pg. 110).
3. It is requested that the Proponent describe how extensively planned activities will disturb sediment spread in summer at both ports, and in winter under the landfast ice of Steensby Inlet.
4. It is requested that the Proponent describe the effects sediment disturbance will have on ringed seals and other biota in the vicinity of both ports in summer and under the landfast ice of Steensby Inlet in winter.

IR Number: 18
Source: Qiqiktani Inuit Association
To: Baffinland, DFO and INAC
Subject: **Aquatic Baseline**
Preamble:

The Proponent is faced with the difficult task of having to characterize freshwater and marine habitats and biota over a very large area that has not been studied in detail. Their work to date has added significantly to the understanding of this environment. But, this work has been largely synoptic. Sampling effort at each site has typically been low, often limited to a few samples collected during the open water period of one or two years (DEIS Vols. 7 and 8). The number of replicate samples taken at a particular location or surveys along a particular route have typically been low. Sampling methods and locations and survey methods and routes have not always been consistent. Some of the "baseline" sampling was conducted during or following construction (Tote Road, Mine Camp, Ports), sewage releases, and bulk sampling (DEIS Vol. 2; pg. 33, line 2).

These sampling and survey limitations limit understanding of the natural conditions, and of natural variation through the seasons and from one year to the next. This makes it difficult to distinguish natural changes from those that are project-driven. It also makes it difficult to enforce remediation and increases reliance on monitoring and adaptive management. This can expose the Proponent to environmental challenges when changes are observed.

In the event that the Project proceeds on schedule the existing data may comprise a significant portion of the pre-Project baseline available for comparison with monitoring studies designed to identify and assess Project-related impacts.

Request:

1. It is requested that the Proponent confirm what studies will be conducted on the Candidate Reference Lake to assess whether it is suitable as a control site for comparison with lakes impacted by the Project?
2. It is requested that the Proponent confirm if there are there plans to augment the baseline?
3. It is requested that Interveners confirm if the aquatic baseline is sufficient for use in detecting whether changes are occurring and, if so, at what level?
4. It is requested that Interveners confirm whether natural variations be confidently differentiated from project-related effects?
5. It is requested that Interveners confirm if the designed monitoring program is robust enough to support the assessment of cumulative impacts by future projects?

IR Number: 19
Source: Qiqiktani Inuit Association
To: Baffinland, DFO
Subject: **Blasting thresholds**
Preamble:

The guidelines for protecting fish and marine mammals from injury and mortality by the use of explosives have recommended that instantaneous pressure changes in the water not exceed 100 kPa (Wright and Hopky 1998) (e.g. Vol 7, p. 246, lines 23-24). The Proponent has used this level as their effects threshold for assessing blasting impacts. Since the guideline was prepared reviews by Cott *et al*. (2003) and Goddard et al. (2008) have found significant evidence that the 100 kPa threshold does not provide sufficient protection for various life stages of fish. They have recommended that instantaneous pressure changes not exceed 50 kPa. The Alaska Department of Natural Resources has gone further and recommended that these pressure changes not exceed 17.2 kPa (Godard *et al*. 2008).

Request:

1. It is requested that the Proponent confirm if consideration was given to following the more precautionary 50 kPa threshold for assessing blasting impacts?
2. It is requested that the Proponent and Interveners confirm whether there are additional guidelines that have been used in other jurisdictions for similar purposes?

IR Number: 20
Source: Qiqiktani Inuit Association
To: Baffinland
Subject: **Release of Nitrogen Compounds to the Aquatic Environment**
Preamble:
The use of large amounts of ANFO explosives can leave significant residues of nitrogen compounds, some of which are toxic to aquatic biota.

Request:

1. It is requested that the Proponent confirm what amount of explosives will be used and how much nitrogen will be residual afterwards such that it may enter the aquatic environment?
2. It is requested that the Proponent confirm whether sublethal effects of nitrates (e.g., endrocrine disruption of fish) been considered in the effects assessment?

IR Number: 21
Source: Qiqiktani Inuit Association
To: Baffinland
Subject: **Sediment Thresholds**
Preamble:

The Proponent has used sediment deposition of 1 mm per year as the threshold for sediment effects (e.g. Vol. 7, pg. 248, Table 7-4.4). The study by Fudge and Bodaly (1984) that was cited in support of this decision was conducted in Southern Indian Lake, MB on Lake Whitefish after impoundment (flooding) for hydroelectric development. Egg survival was low in general, but significantly lower among eggs exposed to sediment accumulation. Post-impoundment sediment levels at known Lake Whitefish spawning beds ranged from 0.03 to 0.14 g dry wt· cm^{-1}, which equated to a layer of 1 to 4 mm in depth. The authors did not assess hatch success at these sediment levels or compare it to hatch success under natural, pre-impoundment conditions.

Request:

1. Please explain the rationale for setting the 1 mm/year deposition threshold, given that the data are from a different species under post-impoundment conditions without pre-impoundment data for comparison.

IR Number: 22
Source: Qikiqtani Inuit Association
To: Baffinland
Subject: **Calving Distribution and Mine Construction**
Preamble:
The historic and current distribution of caribou calving includes the proposed mine site and the road to Milne Inlet. Canada has taken an international position (with the US) against industrial development on the calving ground for the Porcupine Herd.[1] The federal government has also imposed restrictions on mineral exploration activities for the Beverly and Qamanirjuaq herds in response to Inuit concerns. This suggests that during the assessment, attention will be focused on proposed mitigation and monitoring for a large open pit mine and associated activities.

However, although calving distribution was included in the baseline, it was not specifically addressed in the EIS (Vol. 6) which is based on four measurable parameters (habitat, movement, mortality and health). The habitat approach was based on winter and summer habitat effectiveness. The particular vulnerability of calving areas was not addressed (responsiveness to disturbance and need for high quality forage to support lactation). The Proponent did not integrate the different sources of information to assess the probability of caribou calving at various distances from the mine site. The Proponent did not address monitoring or mitigation for calving.

Request:
1. It is requested that the Proponent provide in detail the probability of caribou calving during lows and highs in the abundance cycle relative to terrain, vegetation and proximity to mine infrastructure.
2. It is requested that the Proponent provide more results from the June 1994-97 caribou surveys conducted by GN-DoE.
3. It is requested that the Proponent provide a map of calving locations (during approx. 15-21 June) based on the GN DoE collar program from June 2009 and June 2010.
4. It is requested that the Proponent clarify if they anticipate providing details of monitoring and mitigation for caribou calving.

[1] Summary of Canada's position http://www.canadianembassy.org/environment/development-en.asp. (accessed 21 February 2011)

IR Number: 23
Source: Qikiqtani Inuit Association
To: Baffinland and GN
Subject: **Use of Full Complement of North Baffin Caribou Collar Data**
Preamble:

Data from satellite collared North Baffin caribou are a critical part of the baseline and assessment for this project. Collars were deployed in March 2008 (4 collars) and March 2009 (28 collars) in a GN-led program, apparently with financial support from Baffinland (Terrestrial baseline, p. 48). The baseline states that GN DoE provided Baffinland with 9 months of data (Apr-Dec 2009) for the baseline report (Terrestrial baseline, p. 48) (although Vol. 6, p. 130 states this was Dec-Aug). These data are a critical component of examining seasonal distribution and habitat selection (RSPF modelling) in the baseline and assessment. Seasonal habitat selection analyses were divided into summer and winter. The winter season (16 Sep to 25 May) has 3 central months missing for that period (Terrestrial baseline p. 70). Although sample size is low (4 collars), data from March 2008 would allow some examination of annual fidelity to seasonal ranges, including calving locations.

The Government of Nunavut has established and maintained biologists in Pond Inlet for a number of years. It is understood that a great deal of the work associated with the Pond Inlet office has been focused on North Baffin caribou.

Furthermore, the Action 2.3b and 2.3c of the Government of Nunavut's Draft Caribou Strategy Framework's states the GN will:

> *Make caribou data and information readily available to other organizations involved in harvest management, land-use planning and environmental impact assessment within the range of each herd.*
>
> *Work with industry to make caribou information available for baseline studies and impact assessments.*

Request:

1. It is requested that the GN provide the Proponent with the most recent complete North Baffin caribou collar dataset for use in the baseline and impact assessment for this project.
2. It is requested that the GN clarify if they are aware of any other data in relation to North Baffin caribou that may not be listed in the proponent's baseline reports. If so, it is requested that the GN provide additional data so that it can be integrated into the DEIS.
3. It is requested that the Proponent clarify whether addition data will be integrated into the DEIS provide an updated analyses to examine seasonal habitat use, fidelity to seasonal habitat and movements, and calving locations.

IR Number: 24
Source: Qikiqtani Inuit Association
To: Baffinland
Subject: **Extent of Dust Deposition Relative to Caribou Distribution**
Preamble:
The Proponent has described a potential Zone of Influence for caribou (Figure 6-5.2; Section 5 EIS) based on analyses of monitoring movements at Ekati diamond mine (a complex of open pits and roads in a tundra setting). The Proponent acknowledges that a possible explanation for the 10-15 km zone of influence (reduced probability of caribou) is an effect of mine-generated dust and states (Vol. 6; p. 130 of 179) that "Dust dispersion and its effect on forage palatability may also be a factor in determining a zone of influence of a mine".

But having described this possibility, the Proponent presents insufficient information, which makes it difficult to assess. Information is not integrated from the EIS's different sections on the fallout patterns of dust (Vol. 5 Sect 2 and Appendix 5C-5); baseline levels of dust are provided in some plant species and soil, but with small sample sizes and no descriptive statistics (Vol. 6 and Appendix 6 G). The exposure of caribou to dust was based on soil levels, not the baseline levels in plants nor a likely seasonal diet.

Request:
1. It is requested that the Proponent provide an assessment of the risk of caribou exposure to dust based on analyses of the probability of caribou distribution for both historic and current distribution, the proposed Zone of Influence and the annual and cumulative dustfall (Total Suspended Particulate isopleths).
2. It is requested that the Proponent provide an assessment of the risk to caribou from annual and cumulative levels of metals from dust affecting forage plants in the caribou diet.

IR Number: 25
Source: Qikiqtani Inuit Association
To: Baffinland
Subject: **Iron Toxicity for Caribou, Lichens and Mosses.**
Preamble:
The Proponent has described high baseline levels of iron in plants such as mosses. Appendix 6 C 1 Table 1, (p. 19) reports that grey cushion moss *Racomitrium lanuginosum* (7 samples) had 859-7060 ppm iron, and relatively high levels were reported for the Crinkles snow lichen (3 samples).

Mosses and lichens are known for their ability to take-up metals from surface exposure to dustfall. Lichens and some mosses are often part of caribou diet. The DEIS did not provide information on at what levels iron and other metals such as Antimony become toxic for plants, especially mosses and lichens, and how much of those plants a caribou would have to eat before levels became toxic for the caribou.

Request:
1. It is requested that the Proponent provide an assessment of iron and other metals toxicity in plants, especially mosses and lichens and for caribou.

IR Number: 26
Source: Qikiqtani Inuit Association
Subject: **Extent of Dust Deposition on Caribou Forage**
Preamble:
The Proponent has described that the effect of dust deposition will be spatially limited to 59 km^2 of terrestrial habitat surrounding the Mine Site (outside and including the Project Development Area) where the annual dustfall threshold of 60 g/m^2 will be exceeded (Vol. 6, Section 3.2.2.2 Vegetation Health, p. 66).

The Baffinland EIS justifies its dust levels partially from the High Lake project EIS. However that mine has not been built so there is no monitoring and assessment of the proposed dust levels. The opportunity exists to examine effects of dust accumulating in snow and in lichens at varying distances from the Ekati and Diavik diamond mines relative to the model predictions for dustfall (CALPUFF). In particular the validity of the 60 g/m^2 threshold can be examined relative to measured levels of metals in the lichens. Data from the Alaskan Red Dog lead and zinc mine could also be used to examine the effects of dust on caribou ranges.

Request:
1. It is requested that the Proponent obtain data on levels of metals in lichen and snow relative to the predicted isopleths for dustfall from Ekati and Diavik for Baffinland and re-assess the dustfall effects on lichens.

IR Number: 27
Source: Qikiqtani Inuit Association
To: Baffinland
Subject: **Lack of Baseline Data on Birds**
Preamble:
The proponent has provided a baseline document on birds (non-marine) for the project (Baffinland Mary River Project Birds Baseline Report). This report is largely lacking in baseline data that will facilitate evaluation of impact assessments and mitigation planning. These can be summarized as:

- Unclear and ambiguous terminology related to raptors;
- Unclear and ambiguous methodologies for raptor surveys;
- Incorrect survey design for the PRISM methodology for upland breeding bird surveys;
- Poor data summarization, with little to no quantification of data;
- No consideration of nesting phenology for raptors, as it could impact blasting and construction windows for mitigation.

Furthermore, the baseline report submitted results in an impact assessment with limited credibility. There is a lack of detail required to properly evaluate potential impacts from this project. The impact assessment provides a number of confusing statements, including:

- "*Songbirds and shorebirds…. **are not considered ecologically important** to this ecosystem*" (Vol. 6, p. 85);
- "*Cliff-nesting habitat **is not saturated** with territorial raptors in this area, and the availability of nesting habitat for Peregrine Falcons and other cliff-nesting species **does not appear to be limiting***" (Vol. 6, p. 96).
- Conclusions about peregrine falcon nesting success for 3 disturbed sites are extrapolated to the project impact assessment.

Request:
1 It is requested that the Proponent provide a more comprehensive baseline for birds from which a proper evaluation of potential project impacts, mitigation measures, and monitoring can be assessed.

IR Number: 28
Source: Qikiqtani Inuit Association
To: BIMC
Subject: **Conformity Tables and Referencing**
Preamble:

Section 4.2 of the EIS guidelines requires that the Proponent to submit a conformance table that directs reviewers to the location (document, section, and page number) of the information that satisfies the guidelines. While the Proponent has submitted a conformance table, vast amounts of the DEIS are cited for conformance for single sections of the guidelines, and no page numbers are given in the table.

For example, for the guideline 6.5.3.2 there is a requirement to describe the locations of the run-of-mine (ROM) stockpiles, and plans to control snow deposition, spring freshet, pooling, water run-off and storm flooding. In the conformity table, the Proponent references the entirety of the wastewater treatment plan and several other sections of the DEIS, which in total comprise well over 300 pages. No page numbers were provided.

Request:

1) It is requested that the Proponent revise the conformity tables to point to the specific information that satisfies the EIS guidelines, and to avoid referencing entire volumes or appendices unless it is unavoidable.
2) It is requested that the Proponent comply with the EIS guidelines, and revise the conformity tables to include specific page numbers.

IR Number: 29
Source: Qikiqtani Inuit Association
To: BIMC
Subject: **Nunavut Water Board Water License Application**
Preamble:

A coordinated process between the Nunavut Impact Review Board and the Nunavut Water Board has been established in attempts to streamline the approval process for the Proponent. During this process, the Proponent submits a water license application with the draft environmental impact study (DEIS), and can reference information contained within the DEIS for the water license application.

For the water licensing process, the Mining and Milling Supplemental Information Guide (SIG) for Mine Development (MM3) is required to be completed. This has been completed by the Proponent by referencing sections in the DEIS. Due to the differences between the formatting and location of information in the submitted DEIS compared to the SIG, review of the cited information in the SIG to determine the acceptability of the water license application has been made unduly difficult.

For example, the SIG requires the proponent to identify the potential effect of water use and waste disposal on riparian zone loss. For compliance with this section, the Proponent cites a section of the DEIS that is 105 pages long, and contains very little information on riparian zone loss. Upon further review, information pertaining to this requirement was found, but was scattered across multiple sections of the DEIS and was not cited in the SIG submitted by the Proponent. Note, this is just one example to illustrate a challenge to reviewers.

The previously mentioned example is not an outlier. An additional example is the requirement in the SIG to provide site plans and descriptions of various components of the proposed development. To satisfy this requirement for the description of chemical and fuel storage, the Proponent cites sections of the DEIS that taken together, total 267 pages. To determine what information in the cited documents pertains to chemical and fuel storage is a formidable task, and renders the SIG useless as a tool for reviewing the water license application.

Request:

1) It is requested that the Proponent revise the SIG to point to the specific information required for the water license application with proper referencing (section and page number).
2) In the event that the information required by the water license is present in the DEIS, but is too fragmented to be referenced succinctly, it is requested that the Proponent consolidate the information and submit it in a separate document.

IR Number: 30
Source: Qikiqtani Inuit Association
To: NIRB/NWB
Subject: **NIRB and NWB Coordinated Framework**
Preamble:

A coordinated framework between NIRB and NWB has been initiated for this Environmental Impact Assessment process. As has previously been detailed by NWB/NIRB, the coordinated framework, in part, aims to "streamline" the regulatory process; however, in general, the onus is on the Proponent to provide all relevant water licence application materials in draft form with submission of the DEIS.

The coordinated framework provides an opportunity for the NWB to complete an assessment of conformity of the water licence material. The NWB conformance check is after DEIS submission for public technical review. A conformity check by the NWB at this stage in the environmental impact assessment process will limit Interveners and Interested Parties from being able to evaluate the contents of any missing water licence application materials during the first Information Request stage. Missing, or insufficient, information within the DEIS will limit Interveners and Interested Parties in their technical review.

Request:

1) It is requested that NWB complete a conformance check at this stage (i.e., prior to DEIS distributed for public technical review) of the Environmental Impact Assessment process so that any major deficiencies can be identified and addressed by the Proponent prior to distribution of the DEIS for public technical review.

IR Number: 31
Source: Qikiqtani Inuit Association
To: NIRB/NWB and Baffinland Iron Mines Corporation
Subject: **NIRB and NWB Coordinated Framework**
Preamble:

As part of the NIRB-NWB coordination process, a draft water license application has been submitted by the Proponent with the DEIS. Traditionally, a water license application is submitted to the NWB after NIRB has issued a Project Certificate.

In the NIRB-NWB coordination process, it is expected that Interveners and Interested Parties complete a review of the water license application at the current stage of the environmental impact assessment process. QIA notes that the items, listed below, are absent from the water licence application materials submitted with the DEIS. As such, it is QIA's opinion that the DEIS is not in conformance with the requirements of the NWB, as required in the NIRB-NWB coordinated process. This deficiency may result in the inability to assess potential environmental impacts, and limits the understanding of how waste and water is managed.

a. Statement of financial responsibility, financial statements and certificate of incorporation with a list of officers;
b. Expected term of license;
c. Details and format of annual reporting requirements for water quality;
d. For water works designs, final, stamped engineering drawings need to provided;
e. For waste facilities detailed construction methods, quality control/assurance and inspection and maintenance procedures need to be provided;
f. For waste facilities, final, stamped engineering drawings need to be provided;
g. For waste facilities information needs to be provided, including discharge points, estimated rates of discharge, contingency plans and the capacity of the receiving environment. It is should be noted that the preceding waste facility informational requirements are not exhaustive and is provided as an example of the information needed;
h. Final plans and drawings need to be stamped by a professional engineer licensed in Nunavut;
i. Provided an operations and maintenance manual for sewage and/or solid waste disposal;
j. Provide Interim and final abandonment and reclamation plans for the mine site;
k. Provided human health and ecological risk assessment for establishment of remediation objectives for closure;
l. Provide a summary table of all monitoring commitments that details all Surveillance Network Program (SNP) locations; and,
m. Provide a summary table of the expected quality and quantity of waters, over time in all sumps, SNP stations, and discharge points, along with
    i. If applicable, adaptive management criteria to benchmark if mitigation/contingency are to be implemented;
    ii. If applicable, water quality criteria; and,
    iii. Management action.

The Proponent has acknowledged their "intent to include required engineering drawings in the Final Environmental Impact Statement (FEIS) in the third quarter of 2011"[2]. As noted above, there are other items that require submission to fulfill the requirements of the NWB. In addition to the material content, if the submission of materials is at a later date (i.e., Q3 of 2011), it is likely that this material will not be available for review during part, or all, of the Information Request stages of the environmental impact assessment.

The reasons for the missing NWB materials from inclusion in the DEIS is uncertain; however, it is hypothesized that it is a reflection of the stage of project development. QIA notes that it has been acknowledged by the NIRB-NWB it is the Proponents responsibility, and risk, to complete all NWB and submit as an appendix to the DEIS.

Request:

1) It is requested that the Proponent take a proactive approach in ensuring that all water licence application materials are available for review by Interveners and Interested Parties prior to DEIS distribution for public technical review.
2) If there is incomplete submission, or submission of materials at a later date, of all NWB submission requirements by the Proponent, it is requested that NWB/NIRB provide commentary on how this should be considered by Interveners and Interested Parties during the technical review of the DEIS and subsequent environmental impact assessment stages. It is further requested that NWB/NIRB provide commentary on how the coordinated framework addresses this issue such that adequate review of submission materials are permissible.

[2] February 14, 2011 Letter from BIMC to NWB. RE: Coordinated Review Process by NWB and NIRB.

IR Number: 32
Source: Qikiqtani Inuit Association
To: Baffinland
Subject: **Shipping Route Sensitivity Analysis**
Preamble:

As proposed the Mary River project relies on year-round shipping. From an environmental assessment perspective, elements related to shipping and icebreaking are a primary concern for communities with a relationship to Steensby Inlet, Foxe Basin, Hudson Strait and Milne Inlet and Baffin Bay.

The Final Guidelines established by NIRB are meant to guide the Proponent's attention towards topics that need to be addressed within the DEIS. It is at the Proponents sole discretion as to how information required in the guidelines will be presented in the DEIS. Through an initial review of the DEIS, QIA has found that information related to the potential impacts associated with shipping are scattered throughout the document. The way in which plans are developed for shipping operations, for example, will have many impacts across a number of project assessment components (VECs and VSECs). These are treated separately, making it very difficult to gauge the seasonal and overall impact of a particular route.

The proposed shipping route encompasses a vast area with many unique features. When viewed independently features associated with the shipping route such as; sea ice, seabed sediments, marine fish and invertebrates and marine mammals can be described in rather discrete terms. It is very difficult to determine in a comprehensive fashion the types of interactions and the relative sensitivities of impacts at a particular point along the shipping routes. Relative to project features such as the proposed rail line, the way in which shipping route sensitivities have been observed and comprehensively presented draws into question the degree to which the shipping route is viewed as a homogeneous environment, as opposed to a project element with zones of sensitivities.

Throughout the shipping routes there are certainly sections where a variety of features, either independently or in combination, can be constructed to demonstrate areas of sensitivity to impacts. When presented within the context of impact sensitivity the operational aspects of a project component such as shipping can be observed in a different light. Discussions therefore become much more focused on defining sensitivities across geography and season as opposed to isolated assessment elements.

Request:

1. It is requested that the Proponent commit to drawing materials from the DEIS for the purpose of producing a plan language discussion related to shipping route sensitivities.

   The document should contain both text and supporting visual material such as diagrams and maps and should include full Inuktitut translation. The document should also describe the entire length of all shipping routes associated with the project with the

intention of developing a clear understanding of where zones of sensitivity with identifiable parameters exist. The discussion should be guided by the following factors:

- Description of ice interaction
  - Reference should be given to spatial and temporal features of ice interactions.
  - Distinction given to ice types
- Description of habitat sensitivities for wildlife
  - Reference should be provided for VECs along the shipping route with emphasis provided for spatial and temporal representations
  - Reference should be drawn from both scientific and Inuit Qaujimajatuqangit sources.
- Proximity to communities, with distinction given to harvesting and travel locations
- Relative importance of harvesting areas from a food security perspective
- Areas of ecological significance
  - Distinction given to life cycle processes,
- Biophysical features
  - Distinction given to sensitive marine areas
- Temporal changes, both within and amongst areas

IR Number: 33
Source: Qiqiktani Inuit Association
To: All parties
Subject: **Applicable Acts, Regulations, Guidelines, and, Policies**
Preamble:
The development of a project proposal requires the Proponent to develop a firm understanding of relevant legislation, regulations, acts, guidelines and policies, including how each of observation of each of these pieces contributes to project design and operating. QIA notes in many case applicable policies have not been included in the summary tables, lists or descriptive text of the DEIS. In many cases the appropriate application of policies will help construct key elements of the project.

Volume 2, Table 2-2.1 of the DEIS provides a summary table of applicable acts, regulations, and guidelines pertaining to the proposed project as a whole. In general, the table is a summary list without details related to:

- Which act(s)/regulation(s) apply to each project component; and,
- The role the responsible agencies have in administration, regulating, inspection, and/or enforcement of the act/regulation.

QIA acknowledges that additional information regarding application of the act(s)/regulations(s)/guidelines have been provided in select management plans; however, there is not a clear understanding/summary of the application of these elements for each project component.

Request:

1. It is requested that the Proponent provide additional information, to define how the act(s)/regulation(s)/policy would apply to each project component (i.e., road, railway, sea route, fuel storage, abandonment and reclamation etc.). Where possible reference to where further context has been provided within DEIS should be provided, including section and page number.
2. It is requested that each Responsible Agency provide a summary of the project components that will require their attention according to the mandates authorized unto them by their governing jurisdictions. It is requested that each Responsible Agency provide context into their role in inspection, monitoring, and enforcement activities with respect to their act/regulation.
3. It is requested that the Proponent compile the information requested under 1 and 2 into a comprehensive table. The suggested design for the table is:

Project Component	Act	Regulation	Guideline/ Policy	Description of Application	Responsible Agency and Role	DEIS Reference

IR Number: 34

Source: Qikiqtani Inuit Association
To: Baffinland
Subject: **Accessibility of Information for Review Purposes**

Preamble:

A challenge associated with environmental assessment is the requirement to produce a DEIS which ensures all guideline requirements are appropriately addressed. Equally challenging is the degree to which thousands of pages of research and analysis can be presented and discussed in a way that actively informs and engages those potentially most impacted, particularly in a cross-cultural environment. Though producing a DEIS requires a significant amount of time and resources, the degree to which this will result in a document that will be actively reviewed and analyzed by community members remains uncertain. Addressing these challenges is paramount to ensuring the review process achieves its fundamental goal creating an understanding for how potential impacts are balanced against potential benefits.

Through an initial review of the DEIS and associated documents, QIA has observed three primary components designed towards common use by communities which includes translation into Inuktitut. The primary components are; Volume 1 Executive Summary and Popular Summary, and, a standalone glossy Popular Summary. When comparing these documents QIA notes the main body text is identical, with additional features being residual effects tables and glossary. Although it may be arguable that the level of Inuktitut translation provided is to a level required by NIRB, QIA is nonetheless concerned with how much of the DEIS is actually available for use at the community level.

As a means of improving accessibility of information contained within the DEIS, QIA has prepared a document focused on project socioeconomics for distribution within the communities (see Appendix A to this submission). This document should be understood as an initial attempt to provide those interested in communities with the opportunity to discuss the contents and statements for a key area presented in the DEIS.

Although QIA has undertaken to develop a document specific to socioeconomics there are several other assessment areas that would significantly benefit from the development of similar Inuktitut documents, such as; socio-economics, terrestrial environment, marine environment, shipping operations, fisheries, and, aquatics.

Request:

1. It is requested that the Proponent confirm if additional DEIS materials will be made available in Inuktitut.
2. It is requested that the Proponent confirm how the DEIS has been distributed within the communities.
3. It is requested that the Proponent confirm whether additional efforts to ensure DEIS materials with the most relevance to the concerns of each community have been introduced and made publically available.

4. It is requested that the Proponent confirm whether the types of documents and the level of Inuktitut in the DEIS can be viewed as limiting the ability of community members to fully comprehend and participate in the formal review process.
5. It is requested that the Proponent produce thematic guides based on the larger DEIS to facilitate discussions within the communities in advance of the technical review process.
6. It is requested that the Proponent produce summary reports related to terrestrial environment, marine environment, shipping operations, fisheries, and, aquatics in advance of the technical review process.

IR Number: 35
Source: Qikiqtani Inuit Association
To: All Responsible Authorities
Subject: **Interactions with Communities**
Preamble:

During the environmental assessment process the onus is on the Proponent to plan, develop and submit a detailed mine plan. However, the material content of a DEIS is not the only focal point during the review process.

Numerous groups, including Interveners and Interested Parties, will participate in the formal review process for varying reasons. Many Interveners will participate for the sake of providing information specific to their area of responsibility or expertise. Often this will result in defining certain aspects of the project for the purpose of creating appropriate licenses, permits and approvals, such as those listed under Vol.1, Table 1-15.1.

A central of the premises of the project assessment process is to determine the most appropriate means of understanding balancing potential impacts against potential benefits. One means of addressing impacts is through developing appropriate mitigation and management measures with ties to project approvals. Accomplishing this requires a review of significant amounts of information for the purpose of determining operational plans. In the event a project is approved for development the role for many Interveners shifts from project review to project monitoring, inspections and enforcement.

Although the environmental review process is inherently focused on the responsibilities of the Proponent, clearly determining the duties of each Responsible Agency in an operational context is an equally important part of what the review process requires.

With respect to the proposed Mary River Project a number of communities have been identified as being potentially impacted by the project in various ways. The way in which communities and Inuit may be impacted has many relationships to the types of approvals the project requires. From QIA's perspective part of the duty of a Responsible Agency is to interact with those potentially most impacted by a proposed project.

For QIA, part of understanding the full project picture is being able to clearly demonstrate to communities how each party with responsibilities for the project will function in an operational context.

Request:

1) It is requested that each Responsible Agency with a permit, licence or other approval commit to presenting their role in the project assessment and operational setting for the proposed project. To assist with this commitment, QIA will commit to working with all Responsible Agencies to facilitate effective community interactions.

IR Number: 36
Source: Qikiqtani Inuit Association
To: NPC
Subject: **North Baffin Regional Land Use Plan, Appendix G**
Preamble:

The North Baffin Land Use Plan (NBRLUP) commonly references an *Appendix G, Land Values and Concerns.* Included in Appendix G is both a map of the NBRLUP area and supporting criteria which provides more context into the areas identified on the map. Additionally, the Lancaster Sound Regional Land Use Plan (LSRLUP) includes additional information related to the areas identified on the map in *Appendix G, Land Values and Concerns*.

Request:

1. It is requested that the NPC confirm the land values, and associated rationale, that are attributed to areas associated with the proposed transportation corridor as described by the *Areas of Importance Map*. When providing information on land values QIA requests that specific geographical areas are clearly denoted.

IR Number: 37
Source: Qikiqtani Inuit Association
To: NPC
Subject: **North Baffin Regional Land Use Plan, Appendix K**
Preamble:
Appendix K, Section 3 of the North Baffin Land Use Plan (NBRLUP) states:

In keeping with existing legal and legislative requirements, including the NLCA, corridors shall not negatively impact:

- *Community business, residential and projected expansion areas;*
- *Important fish and wildlife harvesting areas;*
- *Key habitat for fish and wildlife species, especially areas used by endangered species;*
- *Areas of high scenic, historic, cultural and archaeological value.*

Request:
1. It is requested that the NPC describe what criteria and methods are used to determine if a particular area constitutes an important fish and wildlife harvesting area, and/or, a key habitat for fish and wildlife species.
2. It is requested that the NPC provide more information specific to the definitions for negative impact, important areas, and, key habitats.

IR Number: 38
Source: Qikiqtani Inuit Association
To: Baffinland, NPC
Subject: **North Baffin Regional Land Use Plan, Appendix L**
Preamble:
Appendix L - NPC Policy on Translation, of the NBRLUP states:

All materials submitted to the NPC, including letters, formal submissions, reports and any other written material used in the land use planning process, shall be translated into the appropriate dialect of Inuktitut. The cost of translation shall be borne by the party submitting the information.

Request:

1. It is requested that the NPC confirm if this provision in the NBRLUP has been appropriately applied by the Proponent.
2. It is requested that the Proponent confirm whether this provision of the NBRLUP was taken into consideration during the drafting and submission of the DEIS.

IR Number: 39
Source: Qikiqtani Inuit Association
To: Baffinland, NPC
Subject: **Requirment for an Amednment to the NBRLUP**
Preamble:
The DEIS is littered with reference to the use of the Milne Inlet Tote Road and Milne Inlet for the puporses of shipping up to an additional 3Mt/year of iron ore.

During the Guideline review and addendum lead by the NIRB, the NPC submitted correspondence suggesting that additional materials would need to be provided by the Proponent before the NPC could develop an opinion on conformity with the NRBLUP. [3]

Request:

1. It is requested that the NPC confirm whether they now have enough information before them to issue a conformity decision against the NBRLUP.
2. It is requested that the NPC confirm how the NPC will determine if an amendment to the NBRLUP is required, if the decision to seek an amendment will include public further comment, and, if required the process through which an amendment will be sought.

[3] Sepetmember 20th, 2011 Letter from NPC to NIRB. RE: Consideration of New Alternative in the Draft EIS/Mary River Project – NIRB 08MIN053, INAC N2008T0014, QIA LUA 2008 008, DFO 2008 MR, NWB 2AM-MRY.

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