Coding	QIA IR	BIMC Response	Adequate Response
QIA-01-1	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.	Harvesting was addressed as a Key Indicator (Volume 4, Sections 10.3 and 10.4), as were the key wildlife species that are harvested. Cultural well-being was assessed as a subject of note owing to its multiple dimensions, of which ability to harvest (practice a traditional activity) is one dimension. As stated in the DEIS quantification of effects to cultural meaning or well-being is very difficult.	NO
QIA-01-2	It is requested that organizations such as the Nunavut Wildlife Management Board also be engaged on these topics.	N/A	YES
QIA-02-1	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 ProjeCTA such as the Raglan Mine in Nunavik and Voisey's Bay in Labrador.	Baffinland's Human Resources Management Plan (Appendix F-3, section 13) describes the joint management structure that will be established within the framework of the IIBA to administer and monitor the potential effects of the Project on communities. The socio-economic effects assessment presented in Volume 4 identified the affected individuals or groups within a community and between communities.	NO
QIA-02-2	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.	An excellent perspective on data sources on income inequality can be obtained from Statistics Canada, e.g. "Rising Income Inequality in the 1990s: An Exploration of Three Data Sources." Catelogue #11F0019MIE — No. 219. Exploration of the meaning, appropriateness, and methodological issues specific to Nunavut will best be carried out in the context of collaborative discussions that involve community representatives and others involved in territorial monitoring.	YES
QIA-03-1	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.	Proposed mitigation related to optimizing socio-economic effects (increasing benefits while minimizing negative outcomes) are identified in Appendix 10F-3. These measures have been included in the IIBA negotiated with QIA and are believed to reflect the evolution of best practice. Through the IIBA, there is funding and a management structure established to fund, implement and monitor the effectiveness of these mitigation measures. The value of a synthesis of knowledge and experience related to socio-economic mitigation in the mining sector is recognized. However, such a project has a generalized public value and is considered to be outside the scope of a project-specific EIS.	NO

QIA-03-2	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.	Risk analysis is included in Volume 4, under the headings "prediction confidence and risk analysis." Generally, the monitoring and management programs—described in Appendix 10F-3 and in Volume 4, Section 14.2—will be implemented to assess the effectiveness of mitigation measures and to respond appropriately. The management structure described in Appendix 10F-3, Section 12 identifies the structure for response related to those areas under the control of IIBA-related initiatives. In areas where the appropriate response needs to arise from entities outside BIM/QIA, the monitoring program should help in detecting the need and in building partnerships where effective response can be initiated.	NO
QIA-04-1	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 affeCTA will or even can be monitored.	Socio-economic monitoring is addressed in Volume 4, Section 14.2. Baffinland supports the notion that project-specific monitoring of socio-economic indicators should be carried out in the context of broader community-based and regional monitoring. The details of such a monitoring program need to be developed in partnership with the other stakeholders who will be involved in monitoring. Within such a partnership, Baffinland will contribute appropriate data that is generated directly by its activities. It is anticipated that this process will begin following the issuance of a Project Certificate and prior to commencement of construction. In the event that partners are unable or unwilling to participate in a collaborative monitoring endevour, Baffinland would monitor indicators and provide data that are directly generated by its Project. It should be noted that through the IIBA Executive Committee---as referenced in Appendix 10F-3---**there is funding and a management structure established to fund, implement and monitor the effectiveness of specific mitigation measures.**	YES
QIA-04-2	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.	BIM has the capacity and expertise to provide data generated directly by Project activities. This may include data related to recruitment, employment, termination reasons, procurement, training investments and so forth. Community-based monitoring carried out by groups such as the Q-SEMC can add value to this data by providing context and interpretation of these data.	YES

QIA-04-3	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.	A description of specific reporting that Baffinland is committed to is presented in Appendix 10F-3, Section 13. These reports will be provided to the IIBA Executive Committee. In addition, a Joint Management Committee, described in Appendix 10F-3, Section 12.1.2, will be established between QIA and Baffinland to, among other things, bring forward items of concern from Baffinland or QIA to the Executive Committee, and to make recommendations to the Executive Committee on appropriate actions to enhance results. In addition, monitoring of Project-community interactions will be carried out through the socio-economic monitoring program that is described in Volume 4, Section 14.2.	YES
QIA-04-4	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.	In general, monitoring associated with the IIBA will focus on data generated directly by Project activities. This data will be combined with community-based monitoring carried out by groups such as the Q-SEMCto provide context and allow for more complete interpretation of these data. This will support effective alignment of public services to any changing service needs arising in the population, as well as effective modification of Project activities that may be needed to enhance Project socio-economic results.	YES
QIA-05-1	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.	This information is out of scope and available in the public domain.	NO
QIA-05-2	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.	There is no requirement for the Proponent to enter a Development Partnership Agreement. GN is the lead for the process and no formal discussions on the content of a DPA have taken place.	YES
QIA-05-3	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.	The Company has stated its willingness to cooperate with the QIA and others on many issues. All of these commitments are expressed in Baffinland's Human Resources Management Plan, Appendix 10F-3, and are incorporated in the IIBA, which is a confidential document between the Company and QIA.	YES

QIA-05-4	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).	At this time, the Proponent does not intend to pursue ISO 14001 certification but will consider certification in the future.	YES
QIA-06-1	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.	The LSA and RSA are defined in accordance with NIRB guidelines, and in Volume 8 are found in Section 13. Maps of the LSA and RSA are presented in each of the assessment volumes of the DEIS, and are presented separately for each VEC in Volume 8.	NO
QIA-06-2	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.	The assessment focused on the NSA. The effects extending beyond the NSA were discussed in the Transboundary effects Assessment (Volume 9, Section 4).	NO
QIA-06-3	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.	The assessment focused on the NSA. The effects extending beyond the NSA were discussed in the Transboundary effects Assessment (Volume 9, Section 4).	NO
QIA-06-4	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.	The assessment focused on the NSA. The effects extending beyond the NSA were discussed in the Transboundary effects Assessment (Volume 9, Section 4).	NO
QIA-07-1	It is requested that the Proponent confirm whether they intend to implement more precautionary noise exposure levels for seals and walruses?	Baffinland intends to use the 180 and 190 dB re 1 uPa (rms) criteria for pulsed sounds when implementing safety zones as a mitigation measure for cetaceans and pinnipeds, respectively. According to the most current and scientifically defensible information, these criteria are conservative when considering the prevention of hearing injury from exposure to pulsed sounds in cetaceans and pinnipeds. The reviewer is referred to Volume 8, Sections 5.5.3.1 and 5.4.1.4 of the DEIS for a review of this topic.	YES
QIA-08-1	It is requested that the Proponent clearly explain the rationale underlying Table 8-2.1 (DEIS Vol. 8).	Table 8.2.1 describes the area of pack ice disturbance associated with each transit. Disturbance to pack ice integrity is short lived and is not expected to temporally overlap with successive transits (see text Vol. 8, Sec. 2.5.4).	YES

QIA-08-2	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.	Avoidance responses of marine mammals to vessel traffic, including ice breaking ore carriers, were carefully considered in the EIS. For each marine mammal indicator species, with the exception of polar bears, the number of animals exhibiting avoidance responses to ice breaking ore carriers in Hudson Strait, Foxe Basin, and Steensby Inlet were estimated. For polar bears, the proportion of available landfast and pack ice disrupted by icebreakers was calculated and this was compared to overall available habitat. For all indicator species, the estimated zone of avoidance (i.e., ringed seals = 0.3–0.7 km; walrus = 0.1–15 km; all cetaceans = 15–20 km; polar bears = 0.5 km) extended beyond the area of physically disturbed ice created by icebreakers.	YES
QIA-08-3	It is requested that the Proponent confirm whether impact predictions are sensitive to the degree of disruption of the pack ice.	As noted in response to QIA IR#8-2, the assessment of avoidance responses by marine mammals was predicted to extend beyond the area of disrupted pack ice and is primarily based upon estimated sound levels from the icebreaking ore carrier.	YES
QIA-08-4	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.	Volume 8, p. 156 states that pack ice will be temporarily changed by ice breaking; evidence of ships track will quickly disappear due to movement of ice by wind/tides (Enfotech 2010 – Appendix 10D-10). It is estimated that approximately 76.4 km^2 of pack ice will be moved by a single transport in Steensby Port (which is less than 1% of all the pack ice in the area).	NO
QIA-08-5	It is requested that the Proponent confirm why the disruption of pack ice is not considered a Key Issue.	In Volume 8, p. 156 it states that pack ice will be temporarily changed by ice breaking; evidence of ships track will quickly disappear due to movement of ice by wind/tides (Enfotech 2010). It is estimated that approximately 76.4 km^2 of pack ice will be moved by a single transport in Steensby Port (which is less than 1% of all the pack ice in the LSA). Volume 8 (Section 2.5.4) describes the disruption of pack ice during icebreaking activities.	YES
QIA-09-1	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.	The effects predictions related to landfast ice have been rendered low in sensitivity to changes in the number of vessel tracks. This has been achieved by making conservative assumptions about the width of the area of disruption. This estimate of disruption to landfast ice (Volume 8, Section 2.6.2.1) is based on a conservative set of assumptions, that the area of disruption would be a maximum of 1.5 km in width, due to use of various channels, however this may be smaller. Given that the shipping route through landfast ice cover is approximately 90 km, an estimated area of 136 km2 of landfast ice could be disturbed by ships approaching Steensby Port. The percent of disrupted ice in Steensby Inlet will therefore range from 1.5% (January) to 6.1% (July)	YES

QIA-09-2	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.	This estimate of disruption to landfast ice (Volume 8, Section 2.6.2.1) is based on a conservative set of assumptions, that the area of disruption would be a maximum of 1.5 km in width, due to use of various channels. The actual area of disruption will likely be much smaller. Given that the shipping route through landfast ice cover is approximately 90 km in length, an estimated area of 136 km2 of landfast ice could be disturbed by ships approaching Steensby Port. The percent of disrupted ice in Steensby Inlet will therefore range from 1.5% (January) to 6.1% (July). This estimate, which represents the maximum disruption to ice, was used to produce impact predictions for disruption to landfast ice. The shipping frequency as described in the Project Description has been assessed. It is outside the scope of the Guidelines to assess lower or higher shipping frequencies.	NO
QIA-09-3	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.	With any reduction in the extent of landfast ice, the disturbance area will be consequently reduced, such that there will be no effective change in percentages of the remaining fast ice. There is no evidence that breading habitate will become more concentrated due to climate change.	YES
QIA-10-1	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). It is requested that the Proponent present rationale for the 10% and 20% thresholds.	A threshold of greater than 20% change in the productive capacity of a marine coastal habitat is thought to measurably exceed the range of natural variability in habitat productivity at the affected location. A change of this magnitude was assigned a Level III Magnitude of Effect category as it may result in an unacceptable adverse effect depending upon duration and spatial extent and how that spatial extent relates to the LSA. A change of 10% in a population (e.g., ringed seal) may or may not exceed the range of natural variability within the population; however, the pre-defined population-based geographic extent (generally large) of the change implies a greater potential severity of impact. Consequently a lower (i.e., 10%) threshold for change seems appropriate for population-related effects as opposed to habitat effects that may be confined to a very localized area. Other EA have used thresholds as follows: Bathurst Inlet Port and Road-change beyond range of natural variation; High Lake EA - > 10% change to fish habitat or fish population; Doris	YES
QIA-10-2	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.	A value of 10% has been selected as reasonable, based on current practice, logic with respect to population-level effects, and ability to distinguish from natural background levels of disturbance.	YES

QIA-11-1	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.	Credible management measures have been identified in the Shipping Management Plan (Appendix 10D-10)	NO
QIA-11-2	It is requested that the Proponent clearly describe how sensitive the Project is to changes in the routing, timing, and number of vessel transits.	The project viability is contingent on year-round shipping. Variations in vessel transits have been addressed in Volume 3, Section 6, Project Alternatives.	NO
QIA-11-3	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.	In the EIS, Volume 8, Section 5.6 describes what is known from various commercial icebreaking operations and its effects on ringed seals (p 164). Mitigation measures have been developed based on knowledge from other operations and impact predictions and are described in the same Section (5.6) of the EIS (p. 170). 'Lessons Learned' from the Voisey's Bay and Raglan Mine shipping experienced was also outlined in the Shipping and Marine Mammals Management Plan (Appendix 10D-10), and mitigation measures from these mining operations were examined to determine relevance and applicability to the Mary River Project.	YES
QIA-11-4	It is requested that the Proponent describe whether the application of mitigation measures specific to land fast ice formation have been considered.	As stated in Section 2.6.5 Vol. 8. mitigation measures specific to land fast ice are considered under Adaptive Management to reduce large pieces of ice from leaving the Inlet prematurely as a result of ice breaking. The viable mitigation measures include:· modifying the route through land fast ice (during spring only);· following a zig-zag pattern; and· reduction of ship speed .	NO
QIA-11-5	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.	Overall, the assessment process undertaken for this EIS considered key life stages and important areas (e.g., feeding, nursing, breeding, or haul-out habitat) for marine mammals. For all indicator species, measurable parameters and threshold levels focused on these aspects of a marine mammal's life history. Mitigation measures were derived to minimize potential effects on marine mammals and this involved consideration of key life cycle stages. For example, the mitigation measure of decreasing vessel speed from 26 km/h to 18.5 km/h in Milne Inlet was included to minimize effects on large numbers of narwhals that are thought to feed and calve there. The route selection for shipping into Steensby Inlet was made in part to avoid key marine mammal areas (walrus calving area) noted during consultations. In addition, blasting operations are proposed to occur during the ice-covered season (late spring) to minimize the number of marine mammal species present in the area.	YES
QIA-12-1	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.	The DEIS describes the project for which Baffinland is seeking approval: 18 Mt/a to be transported by rail to Steensby Port and shipped from Steensby Port throughout the year, while up to 3 Mt/a could be trucked to Milne Port and shipped during the open water season. The 3 Mt/a road haulage option is no longer proposed - see Baffinland's covering letter to this IR response	YES

QIA-12-2	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.	Baffinland discusses the potential for future development in Volume 3, Section 1.5.	YES
QIA-12-3	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?	The Project is designed to consistently produce and ship 21 Mt/a, including 18 Mt/a via the railway and Steensby Port, and 3 Mt/a via the road and Milne Port. In order to allow for downtime and maintenance, the nominal capacity of the equipment and infrastructure has to be overdesigned and can handle higher production rates. Potential for proposed infrastructure to accommodate higher production rates is discussed in Volume 3, Section 1.5.	YES
QIA-12-4	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.	This information in out of scope	YES
QIA-13-1	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. 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.	These documents are provided as Attachments 4 and 5.	YES
QIA-14-1	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). 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.	During construction there may be relatively frequent flights in and out of the airport. However, once the mine is in operation flights should be relatively infrequent. Noise generated from aircraft landing and take-off will be insignificant relative to the noise generated from machinery and mobile equipment at the Mine Site and Steensby. The expected noise contours for the Mine Site and Steensby Port are presented in Volume 5, Section 3.0.	NO

QIA-14-2	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.	Project-related air traffic is described in Volume 3, Section 2.7 and is shown graphically on Figure 3-2.10.	NO
QIA-15-1	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.	Management of ballast water is described in Volume 9 Section 9.3.4.4 and Appendix 10D-10. In compliance with the Canadian shipping protocol, ballast water will be exchanged prior to entering Canadian waters.	YES
QIA-15-2	It is requested that the Proponent confirm what studies be conducted to assess and monitor the risk of species introductions.	In line with other ports on the eastern canadian seaboard, no directed studies are proposed. The current federal shipping regulations take these risks into consideration.	YES
QIA-15-3	It is requested that the Proponent confirm the expected destination ports for iron ore from Mary River.	Rotterdam has been identified as the primary receiving port. Other ports may be considered.	YES
QIA-15-4	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.	Shipping will comply with Transport Canada approved protocol for ballast water management for navigation in Canadian Waters. No risk analysis was conducted.	YES
QIA-15-5	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.	The low-friction coating on the ice-breaking ore carrier is considered an anti-fouling coating. This coating is non toxic (see MSDS).	NO
QIA-16-1	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.	The change in Company ownership does not change the Project description for the 18 Mt/a railway operation. As discussed in Baffinland's covering letter to these IR responses, the company has decided not to pursue the 3 Mt/a road haulage operation . The description of the 18 Mt/a railway operation remain unchanged.	NO
QIA-16-2	It is requested that the Proponent describe whether changes in the Project Description will alter parameters used for impact prediction.	No changes to the project description are proposed.	NO
QIA-17-1	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. 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.	Areas of general disturbance due to propwash effects were estimated around the ore and freight docks based on buffer zones that account for ship size and the various activities that would be occuring at each port site during all phases and seasons of the Project. These are captured in the estimates of post-construction disturbance area (2.67 + 1.04 ha for Milne and 6.77 + 0.75 ha for Steensby shown in table 8.4.11	YES

QIA-17-2	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).	Areas of general disturbance due to propwash effects were estimated around the ore and freight docks based on buffer zones that account for ship size and the various activities that would be occuring at each port site during all phases and seasons of the Project. These are captured in the estimates of post-construction disturbance area (2.67 + 1.04 ha for Milne and 6.77 + 0.75 ha for Steensby shown in table 8.4.11	NO
QIA-17-3	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.	Areas of general disturbance due to propwash effects were estimated around the ore and freight docks based on buffer zones that account for ship size and the various activities that would be occuring at each port site during all phases and seasons of the Project. These are captured in the estimates of post-construction disturbance area (2.67 + 1.04 ha for Milne and 6.77 + 0.75 ha for Steensby shown in table 8.4.11	NO
QIA-17-4	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.	It was estimated that 3.71 ha (Milne Inlet) and 7.52 ha (Steensby Inlet) of bottom substrate will be altered as a result of ship operations. The change from finer substrates to a more predominant coarse substrate is expected to alter the composition of the benthic biota community structure over this area which represents less than 0.1% of the benthic habitat within the LSA. As noted in Volume 8, Section 5.6.2 (Disturbance), ringed seals are expected to avoid the immediate area around ports when vessels are maneuvering. It was also assumed that the ice covered habitat that will be disturbed by ship traffic (i.e., vessel turning and standby operations) in the area of the ore dock at Steensby Port will not be available to seals. Therefore, ringed seals are not expected to be in the vicinity of either port and thus, they are unlikely to be directly affected by sediment disturbance.	YES

QIA-18-1	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?	As noted in Section 4.5.10 (p. 298) a screening exercise was undertaken to identify an appropriate reference lake for the Mine Area and field sampling was undertaken in 2008 in the Candidate Reference Lake identified through this exercise. The desktop screening exercise considered a variety of criteria including lake surface area, geology, location in relation to current and potential future disturbances, drainage basin, lake size and shape, and shoreline development ratio. Field sampling was initiated in 2008 to assess its suitability as a reference lake and information was collected on aquatic habitat (substrate and water depth), water quality, and the presence/absence of Arctic char. The Aquatic effects Monitoring Program (AEMP) will provide descriptions of monitoring activities, including monitoring in reference area(s). In addition, the Metal Mining Effluent Regulations (MMER) specify site-specific monitoring that is required of the aquatic environment, including reference areas, and the monitoring program will address these and other MMER requirements. Please also refer to EC-26-1.	NO
QIA-18-2	It is requested that the Proponent confirm if there are there plans to augment the baseline?	Additional baseline data will be collected under follow-up programs, as described in the DEIS in Section 4.5.3.1 (p. 252-253), Section 4.5.3.7 (p. 256), Section 4.5.4.7 (p. 260), and Section 4.5.6.12 (p. 279). Please also refer to QIA-18-1 and EC-26-1.	YES
QIA-18-3	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?	This IR does not require a response from Baffinland	YES
QIA-18-4	It is requested that Interveners confirm whether natural variations be confidently differentiated from project-related effects?	As noted in the DEIS (Section 4.5.10, p. 298), an aquatic effects monitoring program (AEMP) will be developed in which details of the monitoring programs will be provided. It is also noted that monitoring of reference areas will be used to assist with delineation of Project-related effects. In addition, the Metal Mining Effluent Regulations (MMER) specify site-specific environmental effects monitoring (EEM) of the aquatic environment, and the EEM guidance document prescribes study designs and methods to quantitatively identify Project-related effects on aquatic biota. The AEMP will address these and other MMER requirements.	YES
QIA-18-5	It is requested that Interveners confirm if the designed monitoring program is robust enough to support the assessment of cumulative impacts by future projeCTA?	Response from Baffinland not required. However, with respect to the aquatic environment to which this comment is directed, the only potential cumulative effect anticipated to the aquatic environment is climate change, which should be detectable with the proposed monitoring program. No other projects are located within the Mary River Project study area.	YES

QIA-19-1	It is requested that the Proponent confirm if consideration was given to following the more precautionary 50 kPa threshold for assessing blasting impaCTA?	As noted in Section 4.4, p. 246, a detailed blasting management plan will be developed, which will follow DFO blasting guidelines (Wright and Hopky 1998). It is also indicated that if any issues associated with meeting these guidelines are identified, they would be discussed with DFO prior to undertaking blasting activities	NO
QIA-19-2	It is requested that the Proponent and Interveners confirm whether there are additional guidelines that have been used in other jurisdictions for similar purposes?	We are not aware of any Canadian guidelines other than the 1998 Guidelines for the Use of Explosives in or Near Canadian Fisheries Waters. In the USA it appears that only Alaska have guidelines that reference allowable pressure changes associated with blasting.	YES
QIA-20-1	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?	Expected quantities of explosives required are summarized in Table 3.1 of Appendix 10C-4 (Explosives Management Plan). Since the mining pit will be mostly dry throughout the year, amonia or residual nitrogen is not expected to cause a problem for the aquatic environment. During the freshet and summer months, any residual explosives washed away by precipitation will report to the waste rock pile (by trucking of waste rock, or pumping of the mine pit water to the waste rock pile). Runoff from the waste rock pile will be channeled to a sedimentation basin prior to discharge to th environment. The quality of the sedimentation pond discharge will be monitored to ensure its complies with water quality guidelines of the MMER.	NO
QIA-20-2	It is requested that the Proponent confirm whether sublethal effects of nitrates (e.g., endrocrine disruption of fish) been considered in the effects assessment?	As described in Section 3.4.1.1 in the water quality effects assessment, water quality thresholds were identified from various published sources, including the Canadian Council of Ministers of the Environment (CCME) water quality guidelines. This included the interim guideline for nitrate for the protection of freshwater aquatic life. As described in Section 4.5.1, effects of the Project on the health and condition of the key indicator (Arctic char) were described through consideration of the CCME water quality guidelines for the protection of freshwater aquatic life – including the interim guideline for nitrate.	NO

QIA-21-1	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.	As noted on p. 250, the published ecological threshold for effects of sedimentation on lake whitefish eggs (1 mm/year, Fudge and Bodaly 1984) was adopted for the assessment. Specific thresholds for Arctic char were not located in the published literature. However, the threshold of 1 mm/year has been applied in other arctic EISs (e.g., Diavik Diamond Mines Inc. 1998) for assessing effects of sedimentation on salmonids. DDMI (1998) also noted that consultations with "senior fisheries scientists" (see p. 6-27) were undertaken to identify an appropriate threshold. Wyatt et al. (2010) also reported that survival of rainbow smelt embryos covered with < 1 mm of sediment was not significantly different than controls (effects were significant at > 1 mm of sediment). Lastly, effects of sedimentation on the viability of fish eggs is generally attributed to reductions in availability and uptake of dissolved oxygen. In turn, the size of fish eggs affeCTA their vulnerability. As Arctic char eggs are larger than lake whitefish and rainbow smelt eggs, this threshold was deemed appropriate. DDMI. 1998. Environmental effects report, fish and water. Volume 1 of 2. Diavik Diamonds Project, DDMI, September 1998. Wyatt, L.H., A.L. Baker, and D.L. Berlinsky. 2010. effects of sedimentation and periphyton	YES
QIA-22-1	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.	Baffinland expects that habitat preference is similar during population highs and lows. Collar data did not indicate calving season habitat preferences that are different from the remainder of the growing season; therefore, calving and growing season data were grouped. The results of the resource selection probability function model indicate that caribou select for slope of approximately 15˚, habitats closer to water and areas where there is more vegetation during the growing season. Baffinland will update this analyses with data that became available from the GN.	NO
QIA-22-2	It is requested that the Proponent provide more results from the June 1994-97 caribou surveys conducted by GN-DoE.	Baffinland has made this request to the GN.	NO

QIA-22-3	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.	Based on our discussion on the ecology of north Baffin Island Caribou (from IQ and limited collar data availability) there is very little discernible seasonal movement. Restricted movements, typically observed in migratory barrenground caribou during the calving season was almost indistinguishable from the other seasons for these data, as summarised in the wildlife baseline report (Volume 6F, discussed throughout). The GNDoE provided additional collar data on 7 April, 2011, but analyses could not be completed in a reasonable time period. Data will be re-analyzed using RSPF analyses to determine possible calving area preferences.	NO
QIA-22-4	It is requested that the Proponent clarify if they anticipate providing details of monitoring and mitigation for caribou calving.	No effect of the project is expected to be unique during calving, so mitigation and monitoring actions identified are the same for all seasons. Observations of calving caribou and caribou with young will be of particular interest during operations because of the infrequent observations of such during the baseline studies. No specific caribou calving surveys are identified.	NO
QIA-23-1	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.	Baffinland cannot comment on this IR as it is directed towards the GN. Baffinland had requested this data from the GN prior to submission of the DEIS.	YES
QIA-23-2	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.	Baffinland cannot comment on this IR as it is directed towards the GN.	YES
QIA-23-3	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.	The analysis was conducted based on data that were provided by the GNDoE up to January 2011. The GNDoE provided additional collar data on 7 April, 2011, and Baffinland has not yet had a reasonable amount of time to analyze. When the data are reviewed, we will be completing further habitat selection analysis and investigating fidelity to seasonal habitats, movements and calving locations. Further analyses is addressed in response to See QIA 22-3.	YES
QIA-24-1	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).	The ZOI identified in Volume 6, Section 5.2.1 was developed to reflect the response of caribou distribution to dust deposition within the RSA. No historic caribou distribution data are available for the RSA. Predicted dustfall is described in Volume 6, Section 3.2.2.2.	NO
QIA-24-2	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.	Please refer to Volume 6G of Volume 6 for this information.	NO
QIA-25-1	It is requested that the Proponent provide an assessment of iron and other metals toxicity in plants, especially mosses and lichens and for caribou.	Appendix 6G of Volume 6 includes an assessment of metal toxicity to plants using threshold regulatory guidelines considered applicable to vegetative species.	NO

QIA-26-1	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.	The potential for dustfall to affect caribou as an important harvest species is addressed in Appendix 6G, Evaluation of Exposure Potential from Ore Dusting	NO
QIA-27-1	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.	Baffinland collected 3 years of comprehensive bird baseline data - we disagree that the baseline is not comprehensive. Some information requests specific to the bird baseline are addressed in response to Environment Canada's IRs. Raptor locations are based on data from 2008 and earlier. Consequently, Baffinland will be updating raptor nest locations in 2011 so that a monitoring program can be initiated.	NO
QIA-28-1	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.	Where NIRB guidelines were specific, BIM referred to specific sections or Tables or Appendix. Where NIRB guidelines were vague or all encompassing, BIM responded accordingly.	NO
QIA-28-2	It is requested that the Proponent comply with the EIS guidelines, and revise the conformity tables to include specific page numbers.	Where NIRB guidelines were specific, BIM referred to specific sections or Tables or Appendix. Where NIRB guidelines were vague or all encompassing, BIM responded accordingly.	NO
QIA-29-1	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).	The DEIS is prepared on the basis on the Project conceptual design. At this stage of the Project, much of the detailed design required to satisfy the requirement of the Water License application are not available. It is the intent of Baffinland to provide the detail design of all SIG requirements for water licensing in a separate water licensing package in the final EIS. We will provide section and page referencing.	NO
QIA-29-2	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.	The DEIS is prepared on the basis on the Project conceptual design. At this stage of the Project, much of the detailed design required to satisfy the requirement of the Water License application are not available. It is the intent of Baffinland to provide the detail design of all SIG requirements for water licensing in a separate water licensing package in the final EIS. We will provide section and page referencing.	NO
QIA-31-1	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.	Baffinland has provided concordance of the DEIS to Appendix C of the EIS guidelines (the NWB's Supplemental Information Guideline). However, not all information is available at present, at least in the level of detail requested. Our understanding of the coordinated process is that a detailed water licensing package with the missing level of detail is expected to accompany the FEIS	NO

QIA-32-1	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	Volume 1 of the DEIS provides a plain language summary of the entire EIS, including key maps and figures translated in Inuktitut.	NO
QIA-33-1	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.	Refer to DEIS Volume 2 for a list of the applicable ACTA and Regulations (Table 2-2.1). Volume 10 contains management plans applicable to all project activities and lists relevant applicable aCTA/regulations and guidelines.	NO
QIA-33-2	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	Not for Baffnland to answer.	YES
QIA-33-3	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:	This information cannot be compiled until the Project Certificate, Water License and other Permits are issued by the regulatory authorities.	YES
QIA-34-1	It is requested that the Proponent confirm if additional DEIS materials will be made available in Inuktitut.	Volume 1 has been translated in Inuktitut and be made available. The popular summary translated into Inuktitut was also provided to the Hamlet Office of each affected community.	NO
QIA-34-2	It is requested that the Proponent confirm how the DEIS has been distributed within the communities.	Initial distribution to the communities consisted of one complete hard copy (with DVD) to each of the following hamlets/municipalities: Arctic Bay, Cape Dorset, Clyde River, Hall Beach, Igloolik, Kimmirut, and Pond Inlet. Additionally, a hardcopy of the Popular Summary, in each Inuktitut and English, were provided to each of the HTOs in the same community. An Inuktitut version of Volume 1 has subsequently been generated and has been issued to each of these hamlets and HTOs.	NO
QIA-34-3	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.	Baffinland provided popular summaries including a CD copy of the entire DEIS to Hamlets of each affected community. Additionally, NIRB has posted the entire DEIS on their public website.	NO

QIA-34-4	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.	Baffinland has made efforts to make a highly-technical EIS available in Inuktitut that will be widely comprehensible. However, in an oral culture, community meetings are equally important to reach out to community members and to bring forth an understanding of the project and its effects. Baffinland carried out public meetings following issuance of the DEIS, and plans to participate in upcoming NIRB meetings as well.	NO
QIA-34-5	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.	Various presentation materials have been and will continue to be develop for presentations at community meetings. The popular summary of the DEIS and all supporting figures provide good summaries of information and visual interpretations.	NO
QIA-34-6	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.	These summaries are presented in the Popular Summary, the Executive Summary and Volume 1 of the DEIS.	NO
QIA-35-1	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.	Not for Baffnland to answer.	YES
QIA-36-1	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.	Not for Baffnland to answer.	YES
QIA-37-1	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.	Not for Baffnland to answer.	YES
QIA-37-2	It is requested that the NPC provide more information specific to the definitions for negative impact, important areas, and, key habitats.	Not for Baffnland to answer.	YES
QIA-38-1	It is requested that the NPC confirm if this provision in the NBRLUP has been appropriately applied by the Proponent.	Not for Baffnland to answer.	YES
QIA-38-2	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.	NBRLUP was considered in the drafting of the DEIS.	NO
QIA-39-1	It is requested that the NPC confirm whether they now have enough information before them to issue a conformity decision against the NBRLUP.	Not for Baffnland to answer.	YES

QIA-39-2	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.	Not for Baffnland to answer.	YES