Table 1

Baffinland Iron Mines Corporation
Mary River Project
Baffinland Comments on Revised Draft Guidelines

Baffinland Comment No.	Section	September 09 Draft Guideline Text	Baffinland Comments and/or Suggested Re-wording
BIM-101	5.4.2	The EIS shall determine the temporal boundaries separately for the construction, operation, final closure, and post-closure periods, and also for planned exploration work to be undertaken in conjunction with the Project. The closure period covers decommissioning, abandonment, and reclamation; post-closure covers the period after the mine has been decommissioned and the site reclaimed and returned as much as possible to its natural state. The temporal boundaries of the post-closure period may encompass many years, depending on the site and on the methods of closure. The Proponent shall also consider where applicable, the temporal bounds of Project alternatives under assessment, noting where they differ from those for the preferred option. The Proponent shall give due consideration to Inuit land use and occupancy (past, present, and future), in addition to other factors to be considered in its determination of spatial boundaries for the Project.	Reference to temporary closure has been removed but ongoing exploration is still included. Baffinland's exploration program has already been screened by NIRB.
BIM-102	5.6	5.6 ANALYSIS OF NEED AND PURPOSE The following points must be addressed in discussing the need for and purpose of the Project: ▪ General feasibility from an economic perspective, including how this Project will benefit communities in Nunavut, either directly or indirectly; ▪ An assessment of the longer term strategic implications of the Project, and how it may affect or lend to transportation networks (existing and proposed) in Nunavut; ▪ Identification of past, current and potential future users of the LSA, RSA, and project infrastructure, including commercial, government, public, and private; ▪ Analysis of community support for and opposition to the Project, with particular emphasis on the proposed Steensby Inlet shipping route, with a description of how the Proponent has sought input from a broad range of socio-economic groups and members of the public, and any efforts undertaken to relieve public concern; ▪ An analysis of the overall net benefit of the Project in terms of Nunavut and of Canada as a whole, which includes considerations that are not related to economics; and ▪ Describe the current status of Project financing, and the Proponent's financial preparedness to meet the requirement for reclamation and security shall the project proceed. Discussions addressing the above points shall be supported by an analysis of the positive and negative social and economic effects on existing industries, markets, and communities over the life of the Project. This analysis should also indicate the distribution and magnitude of benefits and/or losses to specific socio-economic groups in the relevant study area.	The information requested in Section 5.6 has considerable overlap with the socio-economic impact assessment. Suggest removing repetition
BIM-103	6.1	6.1 ALTERNATIVES Last paragraph: When the Proponent assesses the economic viability for each alternative option, due considerations must be given to the vulnerability of the arctic ecosystem, the potential for extension of the mine life and/or increased iron ore production rates, and associated cumulative effects of each option, in accordance with the requirements indicated in the Cumulative Effects Assessment (CEA) section (Subsection 7.8, appropriate cross referencing can be used in the EIS for CEA), particularly the potential for cumulative impacts on the marine ecosystem and Inuit harvesting activities. In addition to CEA, alternative assessment shall also include the following aspects: VECs and VSECs, assessment boundaries, and baseline data if applicable.	Environmental assessment includes an evaluation of cumulative effects of the proposed project (i.e., the preferred alternative), not all alternatives. While we agree that the potential for cumulative effects is a consideration in ranking the environmental performance of a given alternative, a CEA of every alternative is not necessary or realistic. We suggest re-wording as follows: *When the Proponent assesses the economic viability for each alternative option, due considerations must be given to the vulnerability of the arctic ecosystem, the potential for extension of the mine life and/or increased iron ore production rates, and associated cumulative effects of each option, particularly the potential for cumulative impacts on the marine ecosystem and Inuit harvesting activities.*

BIM-104	6.2	6.2 PROJECT DESIGN General Project design issues discussed in the EIS shall include: ▪ An explanation of how the environment has influenced the design of the Project. This should include, but is not limited to, geographical, geological, meteorological, hydrological and oceanographic conditions; ▪ Global climate change. The discussion must describe and assess, on the basis of current knowledge, how the potential of climate change could affect permafrost and soils with high ice content, the hydrological regime, as well as marine ice flow regimes, and the long-term impacts of such changes on the Project; in addition, the Proponent shall identify the Project sensitivity to changes in specific climate-related parameters (CEAA, 2003) ▪ The Proponent should design and apply multiple scenarios on impacts assessments, where these scenarios span the range of possible future climates, rather than designing and applying a single "best guess" scenario (EC, 2007) ▪ A discussion of how design, engineering, and management plans are consistent with the maintenance of eco-systemic integrity focusing on various wildlife habitats, including freshwater habitat, marine habitat and terrestrial habitat; ▪ A demonstration of how the Proponent has applied the precautionary principle in its Project design and management; ▪ How potential impacts to wildlife (e.g. caribou and peregrine falcons) have influenced the design of the Project, including the geographical location of project components, special attention should be paid to the influence of peregrine falcon habitat on the selection of land farms, borrow pits and quarry sites, etc.; ▪ How socio-economic conditions have influenced the Project design. For example, how local preferences and labour capacity, etc., have influenced the design of work rotations, pace of construction, employment policy, etc.; ▪ How project design, particularly site preparation, has been influenced by the distribution of archaeological resources; ▪ How public consultation and Traditional Knowledge have influenced the planning and design of the Project; and ▪ The considerations for future development. All assumptions underlying design features should be explicitly stated.	We suggest re-wording of the final sentence as follows: *All assumptions underlying design features relevant to environmental assessment should be explicitly stated.*
BIM-105	6.5.2.6	6.5.3.6 Mine De-Watering The Proponent shall describe: ▪ Information about de-watering methods, specifying the estimate of volumes to be pumped based on the meteorological baseline data, and geotechnical works, the areas that may be affected, the quantities of bottom sediment requiring disposal, and the disposal methods; and ▪ The contingency plan should the mine water quantity be significantly larger than estimated.	The pit is entirely within permafrost and no groundwater is anticipated. We suggest adding "if applicable" or removing this requirement.

BIM-106	6.5.2.7	6.5.3.7 Landfills or Landfarms The Proponent shall describe the following information to the extent possible: ▪ Research results for effectiveness of similar landfarm operation facilities in comparable geological regions taking account the climate condition; ▪ Locations of any landfills and landfarms, with estimates of containment capacities, associated design basis and considerations to minimize impact on the surrounding environment; ▪ An inventory of materials to be land filled, taking into account the Project stages; ▪ Planned landfarm construction materials and specifications, engineering features and facilities layout drawings; ▪ How contact and noncontact water will be managed, and how the design of these components incorporates the consideration of climate change, especially when water diversions are proposed (i.e. increased or decreased flows).	We suggest, considering efforts to coordinate water licensing with the NIRB review to the extent possible, that at the DEIS stage concept level approaches to design for landfills and landfarms (i.e., siting and design considerations and criteria) would be appropriate, with greater engineering specifics provided at the FEIS stage. Suggest removing requirement to include information on construction materials, specifications and engineering drawings in the DEIS; or defer this requirement to the FEIS.
BIM-107	6.5.11	6.5.12 Fuel and Explosives Facilities The Proponent shall describe, in conjunction with its Spill Contingency (Subsection 9.4.2), Plans Hazardous Material Management Plan (Subsection 9.4.9) and Explosive Management Plan (Subsection 9.4.10) the following: ▪ Applicable federal and territorial legislation and regulations; ▪ The location and characteristics of fuel and explosives storage and/or manufacturing infrastructure and facilities (e.g. explosives and detonator magazines, fuel storage, ammonium nitrate storage, maintenance/wash area, process trucks and their parking area, any offices, warehouses, buildings). This will include distances to vulnerable features (dwellings, roads, camps, railways, bodies of water, etc.), the types and estimate of quantities of fuel, explosives, and other similar materials required for the duration of the Project; ▪ Operation plans (without duplication of the plans noted above) including Oil Pollution Prevention/Emergency Plans in connection with the Spill Contingency, and Oil Handling Facility Contingency Plan. This addresses fundamental requirements for the fuel transfer to ships from port and should be approved by Transport Canada; ▪ Methods of fuel transfer and transportation from source(s) to, and around site; ▪ Safe handling and spill containment prevention methods and liquid effluent disposal plans; ▪ Evaluation of worst case scenario (i.e. accidental explosion); ▪ Security measures to be implemented, if applicable; ▪ Accident/incident response reporting, spill response training; and ▪ The location and contents of spill kits on site.	The location and contents of spill kits on-site is too specific at this stage in project planning.

BIM-108	7.8	7.8 CUMULATIVE EFFECTS ASSESSMENT In terms of the Mary River project, the following areas, among others, shall be addressed in the CEA: ▪ The cumulative effects related to past and current project activities, including previous Nanisivik and Polaris mines, Baffinland's most recent Bulk Sampling program and ongoing Geotechnical program, as well as associated shipping activities in the project region; ▪ The cumulative effects related to future development of other identified deposits (#2, #3 and #4), possible new deposits to be identified from ongoing geotechnical program at or near Mary River; ▪ Consideration of cumulative effects from increased lifetime of use of railway and port facilities resulting from possible expansion of the currently proposed project; ▪ The cumulative effects associated with other ongoing or planned major project development in the region, including; the federal naval facility at Nanisivik, Roche Bay Mining project, etc; ▪ The cumulative impacts of the Project, that would provide for or contribute to the overall use of larger marine transportation corridors taking into account the improved accessibility for other marine traffic; ▪ Anticipated cumulative effects on the distribution, abundance and harvesting of both terrestrial and marine wildlife (including mammals and migratory birds) from escalated project activities, including habitat loss, changes to migration patterns and population health with a focus on cumulative impacts related to shipping with ice breaking at the proposed rate; ▪ The potential for cumulative effects on "Species at Risk" (EC, 2004); ▪ The cumulative effects related to different temporal scenarios for shipping (including an option for no ice breaking in winter and spring); and ▪ Cumulative effects of monitoring programs planned for identifying and mitigating effects of the Project on wildlife.	These proposed or potential activities do not qualify as "reasonably foreseeable" according to NIRB's definition.
BIM-109	7.11	7.11 SIGNIFICANCE DETERMINATION In the process of significance determination, the Proponent shall communicate with potentially- affected communities, including relevant individuals and organizations to solicit input and incorporate their views regarding the value it placed on a VEC or VSEC, as well as associated significance of impacts. Furthermore, the Proponent shall describe how it will ascertain the significance that different parties assigned to each impact, and how it will proceed if different parties ascribe varying significance to VECs, VSECs or the associated impacts. If it is impossible to attain a consensus on the significance of certain impacts, the Proponent shall present the range of viewpoints expressed and shall present and justify its preference, if any. Finally, the Proponent shall describe the significance it ascribes to each effect, and justify how the significance of the effect was determined, taking into consideration and avoiding duplication of, the information provided above.	Significance is determined by considering the combination of attributes of an effect (i.e., magnitude, geographic extent, etc.). It is not reasonable to expect the proponent to solicit opinions regarding significance from various parties within the communities regarding each potential impact of the Project. We suggest re-wording the highlighted text to state that the Proponent shall comment regarding any feedback it has received during consultation activities regarding the importance of a VEC/VSEC, the level of concern expressed, or the perceived significance of an impact.

BIM-110	7.11	The terms used to describe the level of significance (including significance assessment for residual impact in Subsection 9.8), such as "low", "medium", "high", “adverse”, “beneficial”, “positive”, “negative” must be clearly defined, where possible in quantitative terms. The following attributes defined by NIRB shall be taken into consideration in determining the significance of each impact: ▪ The environmental sensitivity of the geographic area likely to be affected by the project; ▪ The historical, cultural and archaeological significance of the geographic area likely to be affected by the project; ▪ The extent of the effects of the project, including the geographical area that will be affected, the size of the affected human populations, and the size of the affected wildlife populations and related habitat; ▪ The extent of the effects of the project on other regional human populations and wildlife populations, including the extent of the effects on Inuit Harvesting activities; ▪ The magnitude and complexity of adverse effects; ▪ The probability of adverse effects occurring; ▪ The frequency and duration of adverse effects; ▪ The reversibility or irreversibility of adverse effects; and ▪ The potential for cumulative adverse effects given past, present and future relevant events. In addition, NIRB considers other relevant attributes in assessing the significance of impact: ▪ Direction or nature of impact (i.e. positive/beneficial versus negative/adverse); ▪ Effect on ecosystem function and integrity; ▪ The effect on the capacity of resources to meet present and future needs; and ▪ The value attached to the impacted VEC or VSEC by those who identified them.	The use of the term “adverse” in the significance attributes listed is incorrect. The magnitude, frequency, probability, etc. of an effect is important in determining significance irrespective of direction (positive or negative). The attributes should read simply: “the magnitude and complexity of the effect”; “the probability of the effect occurring”; etc.

BIM-111	8.1.9/ 8.1.9.1	8.1.9 Freshwater Aquatic Environment Including Biota and Habitat 8.1.9.1 Baseline Information ▪ Baseline information from studies, available published information and/or information resulting from community IQ studies on limnology, freshwater biota, fish and other fresh water species, in particular species that perform particularly significant ecological functions; associated habitats and habitat distribution in the RSA and the LSA. ▪ Description of the biological composition of freshwater aquatic environments in the LSA, including: strophic state, periphyton, phytoplankton, zooplankton, fish, the interactions and relative significance of each species within food chains; ▪ Description and population distribution of fish species in the LSA including the potential seasonal and annual trends in abundance and distribution of these species populations, in particular Arctic char, their migratory patterns and routes of these species and preferred migration corridors, and the corresponding sensitive periods when the routes include habitats affected by the Project; ▪ Characterization of habitat requirements for each fish species, including areas used for spawning, rearing, feeding and over-wintering, and any sensitive times for these activities; ▪ Description of existing freshwater habitat in waterbodies and watercourses (including littoral zones, aquatic and riparian vegetation, lake bottom characteristics, fish overwintering areas, the estimated productive capacity, etc.) within the LSA; ▪ Using available published and/or information from community IQ studies on the habitats and populations of any rare or regionally or locally unique species Habitats of any rare or regionally or locally unique species; species designated in Species at Risk; species listed as vulnerable, endangered, or a species of special concern by COSEWIC; species with federal, territorial, regional, or locally designated status (e.g., vulnerable, threatened, endangered, extirpated, of special concern), and species of the great importance for Inuit life and culture; ▪ The health of major fish species populations and their contaminant loadings; ▪ Any other issues relating to freshwater aquatic species or habitat identified through public consultation.	We suggest “major fish species” be re-worded to be :fish selected as VECs”. Regarding contaminant loadings, we have not collected this information and do not think it is necessary, but we can present what is available within the region. We have suggested the addition of wording in the corresponding impact assessment section regarding the need to evaluate the Project’s potential to release contaminants into the environment that may be absorbed by VEC species.
BIM-112	8.1.9.2	8.1.9.2 Impact Assessment ▪ Potential direct and indirect impacts on fish and invertebrate biota, and habitat of both in including freshwater aquatic environment from changes of water quality and quantity, sediment quality and quantity ~~of their habitat~~ due to the Project development; ▪ Potential impact on fish and invertebrate biota and habitat of both, from changes to aquatic or riparian environments as a result of change of water and sediment quantity (e.g. water withdrawals or discharge, redirection of natural flows); ▪ Potential impact on fish and invertebrate biota and habitat of both, from changes to water and sediment quality (e.g. residual explosives, nutrients and toxin input, sewage and grey water effluent discharges); ▪ Potential direct or indirect habitat alteration, disruption, or destruction of fish and invertebrate biota habitat, including habitat of aquatic species at risk, due to project activities within and in proximate of waters, such as the noise and vibration from blasting as a result of construction of bridges and other water courses crossings; ▪ Potential direct or indirect impacts on aquatic life and their habitats due to containment structure (sediment control structures, fuel containment structures, etc.) and potential accidental spill; ▪ Evaluation of the potential impacts on critical habitat identified for spawning, rearing, nursery and feeding, and on seasonal migration areas, winter refuges and migrations corridors of fish; ▪ Evaluation of the ability for fish to pass at water crossings along Project roads and the railway; and ▪ An assessment of the changes in fishing activity, health and populations.	Suggest editing bullet 1 as shown. Bullets 2 and 3 repeat the all-inclusive wording of bullet 1. The term “fishing activity” should be removed from the final bullet as this relates to land use and not the health of fish VEC populations. We suggest an additional requirement within the impact assessment (related to proposed re-wording above under baseline) as follows: *The Proponent shall evaluate the potential for contaminants to be released to the environment as a result of the Project and be taken up by fish VEC species.*

BIM-113	8.1.10/ 8.1.10.1	8.1.10 Terrestrial Wildlife and Habitat 8.1.10.1 Baseline Information ▪ The local and regional presence of resources and populations of all identified wildlife VEC species on the basis of special consideration should also be given to Species at Risk and species of the greatest importance for Inuit life and culture; ▪ Biodiversity in the RSA, and associated food chain relations among those species; ▪ Wildlife habitat in the LSA which are important for forage, shelter and reproduction of wildlife VEC species. This includes terrestrial and water habitats (e.g., sea ice, fresh and salt water), and areas designated as: Sirmilik National Park of Canada, Critical Wildlife Areas: ▪ Locations of key habitats in the RSA for wildlife VECs, which include but are not limited to Calving Grounds, eskers, calving and nursing areas, denning sites, staging areas, special locations as salt licks, insect relief habitats, and areas used by females and their young, In connection with key habitats, the baseline discussion should also include migration routes, water course crossings, travel corridors and areas important to Inuit harvesting; ▪ Habitats of any rare or regionally unique species or Species at Risk, with federal, territorial, regional, or locally designated status (e.g., vulnerable, threatened, endangered, extirpated, of special concern) or cultural status; ▪ A description of historic and current seasonal/annual trends in range or habitat use, movements, and distribution of all identified terrestrial wildlife VECs, with reference to scientific reports and Traditional Knowledge; ▪ The migratory patterns and routes of these species and the corresponding sensitive periods when the routes cross habitats affected by the Project; ▪ The health of VECs species populations, and contaminant loading in representative species, for example caribou. For contaminant analysis, animals already harvested in the RSA of assessment could be used, especially those are at low numbers; ▪ Timing and extent of presence of North Baffin caribou in the RSA and LSA (including areas of potential mine development or exploration related to the Project, and all shipping routes); ▪ Species that perform particularly significant ecological functions and or which play a significant role in Inuit culture; ▪ Available information regarding noise and vibration impacts on wildlife from studies/research and Traditional Knowledge; and ▪ Any other issues relating to these species identified through public consultation.	Recommend re-wording **bullet 1** as follows: *The local and regional presence and populations of wildlife VEC species, selected on the basis of legal status (i.e., Species at Risk), ecological importance, or social importance (i.e., importance to Inuit life and culture);* Recommend adding highlighted text within **bullet 3**. Also, we note that this bullet asks for habitat of wildlife VECs within the LSA to be identified, and mentions Sirmilik Park and Critical Wildlife Areas, none of which are located near to the Project or within the LSA. We suggest these important areas be included in the subsequent bullet (**bullet 4**) which deals with habitat of wildlife VECs in the larger RSA. Recommend removing **bullet 5**, as it is redundant since Regarding contaminant loadings in **bullet 8**, we have not collected this information and do not think it is necessary, but we can present what is available for the eastern arctic. We have suggested the addition of wording in the corresponding impact assessment section regarding the need to evaluate the Project's potential to release contaminants into the environment that may be absorbed by VEC species such as caribou. **Bullet 10** is the basis for selecting VECs. We believe this item is redundant, particularly if NIRB adopts our recommended re-wording of **bullet 1** above.

BIM-114	8.1.10.2	8.1.10.2 Impact Assessment ▪ General impact on wildlife VEC species in the RSA, including but not limited to: interference with migratory routes, alienation from important habitat (i.e. denning sites, calving areas, nesting areas) and disturbance, interruption from increased human activities. Special consideration shall be given to Species at Risk, and Species listed as vulnerable or endangered by the COSEWIC; ▪ The potential effects on population size, abundance, distribution and behaviour (e.g. ▪ stress to animals) of wildlife, in terms of foraging availability and distribution from: ▪ Direct and indirect loss of habitat from the presence of and use of infrastructure, the conduct of project activities and their associated sensory disturbances; ▪ Direct and indirect impacts from potential degraded water quality and ground contamination, as well as airborne contaminants resulting from project facilities and associated activities; ▪ Direct and indirect impacts from ice-breaking associated with shipping and ice management at seaport (with special attention to caribou migration, if applicable); ▪ The potential negative impacts on wildlife from ground traffic and air traffic disturbance, especially the low level flight of aircrafts, (e.g. lower than 610 metre) during critical periods (caribou calving and post-calving). During impact assessment, a delineated Flight Impact Zone could be useful in determining the potential impact of flights on wildlife, with a particular focus on critical life cycle periods base on planned air traffic volume and routes; ▪ The potential effects on wildlife from injury or mortality caused by project activities, particularly the use of the Milne Inlet Tote Road, railway line, mine hauling roads and other access roads. and intentional killing of wildlife to defend human life or property by mine personnel; ▪ Potential effect on wildlife from increased hunting pressure resulting from increased hunting access resulting from development of the project; ▪ Potential impacts of noise and vibration on wildlife from drilling, blasting and other operation as a results of construction and operation activities at project sites, and mining operation at Mary River site; in particular potential impacts on caribou and other principle VEC species from frequent noise and vibration from year round railway operations, with a focus on disturbance/disruption to caribou calving and migration; ▪ Assessment of the potential for project activities to act as an attractant to some wildlife species and its effect/changes to behaviour and condition; and ▪ Any other issues related to impacts on wildlife or their habitat.	We suggest replacing “wildlife” with “wildlife VEC species” in **bullet 1**, and removing the final sentence from this bullet since wildlife VECs have already been defined in **bullet 1 of Section** 8.1.10.1 based on these criteria. **Bullets 3, 4 and 5** should be sub-bullets of bullet 2, as was the case in the initial draft of the guidelines. We suggest an additional requirement within the impact assessment (related to proposed re-wording above under baseline) as follows: *The Proponent shall evaluate the potential for contaminants to be released to the environment as a result of the Project and be taken up by VEC species.*

BIM-115	8.1.11/ 8.1.11.1	8.1.11 Birds 8.1.11.1 Baseline Information ▪ The local and regional occurrence of terrestrial and marine migratory bird species, their populations and health of these species' populations; including Species at Risk, any rare or regionally unique species and other territorial, regional, or locally designated status; ▪ The relative seasonal/annual abundance and distribution, trends in range or habitat use, movements, and population status of these bird VEC species; ▪ Migratory patterns and routes of these species and the corresponding sensitive periods where the routes cross habitats affected by the Project; ▪ The use of the established or proposed Migratory Bird Sanctuaries, Key Migratory Bird Sites, and other significant habitats (e.g. breeding and nesting sites and staging areas), or similar areas by these species in the RSA and along the proposed shipping routes; ▪ Habitats of Species at Risk, any rare or regionally unique species and other territorial, regional, or locally designated status (e.g., vulnerable, threatened, endangered, extirpated, of special concern) or cultural status; ▪ Critical terrestrial and marine migratory bird sites along the shipping route, including ▪ those which may be affected by marine spills as a result of current and/or wind patterns; ▪ Species that perform particularly significant ecological functions; and ▪ Any other issues relating to these species identified through public consultation.	Recommend re-wording **bullet 1** as follows: *An overview of the local and regional occurrence of migratory birds, with more discussion focused on the description on bird species selected as VECs on the basis of legal status (i.e., Species at Risk), ecological importance, or social importance (i.e., importance to Inuit life and culture);* Recommend adding the highlighted text in **bullet 2**. We suggest that **bullet 5** (habitat of species at risk and of cultural importance; i.e., VECs) be removed since **bullet 2** requires a description of habitat use of bird VEC species. We suggest removing **bullet 6** since the content of this item is included in **bullet 4**. If this item were to remain, we suggest replacing the term "critical" with either "key" (i.e., CWS' key migratory sites) or "important" (i.e., Important Bird Areas – IBAs). We suggest removing **bullet 8** as bird species that perform significant ecological functions (i.e., are ecologically important) have already been identified in re-worded **bullet 1**.

BIM-116	8.1.14/ 8.1.14.1	8.1.13 Marine Wildlife and Marine Habitat 8.1.13.1 Baseline Data ▪ Marine biological communities, ranging from benthic (epifauna, infauna) and plankton communities, pelagic fish; benthic invertebrates, marine fish, coastal birds, to marine mammals in Steensby Inlet and Milne Inlet, and shipping routes at a lesser extent; ▪ Corresponding marine habitat of marine wildlife VECs ~~including, but not limited to, fish habitat as defined by the Fisheries Act~~, existing and proposed areas with special designation (i.e., Sirmilik National Park of Canada, National Marine Conservation Areas, and Key Marine Habitat Sites for Migratory Birds), emphasis shall be given to those habitats identified as important to the natural life cycle of a species, and Inuit harvesting activities to be potentially impacted by port and shipping operation; ▪ Characterization of habitat for marine mammals, including habitat for each species used for feeding, calving, nursing, over-wintering, and any sensitive times for these habitats; ▪ Species and habitats of Species at Risk, rare or regionally or locally unique species, species listed as vulnerable, endangered, or a species of special concern by COSEWIC; species with territorial, regional, or locally designated status (e.g., vulnerable, threatened, endangered, extirpated, of special concern), and species of the great importance for Inuit culture and principle nutrient source; ▪ Marine mammals species (e.g. ringed seals, beard seals, bowhead whales, walrus, belugas, narwhals, killer whales), historical and current habitats distributions, seasonal migration patterns, critical areas (feeding area, calving areas, over winter areas, etc.), potential interactions with offshore facilities and shipping operation; ▪ Available published information and/or information resulting from community IQ studies regarding identified VECs marine mammal species, including but not limited to: the relative seasonal and annual trends in abundance and distributions, and the estimated productive capacity; migratory patterns and associated corridors/routes, critical habitats on or in proximity of shipping routes, and sensitive periods; and ▪ The health of those identified VECs species populations, and contaminant loading in representative species, such as seals and walrus, on which Inuit depend as food sources. For contaminant analysis, animals already harvested in the RSA of assessment should be used.	Recommend re-wording **bullet 1** as follows: *An overview of the occurrence within Steensby Inlet and Milne Inlet, and shipping routes at a lesser extent, of marine biological communities - benthic (epifauna, infauna) and plankton communities, pelagic fish; benthic invertebrates, marine fish, coastal birds, and marine mammals. The discussion should place emphasis on marine wildlife species selected as VECs on the basis of legal status (i.e., Species at Risk), ecological importance, or social importance (i.e., importance to Inuit life and culture);* We suggest re-phasing the first sentence of **Bullet 2** as shown, to focus the discussion of habitat on those components of the marine environment that are valued. **Bullet 2** refers to National Marine Conservation Areas. There are only 3 NMCAs in Canada and none in the arctic. If this is referring to a potential NMCA in the North Baffin currently under study by Parks Canada, we suggest it be prefaced with “proposed” or “potential” (i.e. potential NMCA) and confirm its proposed location. Regarding contaminant loadings in **bullet 7**, we have not collected this information and do not think it is necessary, but we can present what is available for the eastern arctic. We have suggested the addition of wording in the corresponding impact assessment section regarding the need to evaluate the Project’s potential to release contaminants into the environment that may be absorbed by VEC species such as seals and walrus.
BIM-117	8.1.14.2	8.1.13.2 Impact Assessment The Proponent is required to present a comprehensive adverse impact analysis for its shipping activities, environmental factors could refer to Environmental Considerations for Port and Harbour Developments, which contains a check list of the potential adverse effects port development may generate (Davis et. al., 1990), including but not limited to: water pollution, contamination of bottom sediment, loss of bottom biota, damage to fisheries, beach erosion, current pattern changes, waste discharges, waterfront drainage, oil leakage and spillage, hazardous materials, emissions of dust and gases, smoke and other air pollution, noise, odour, traffic increases, landfills, landscape, etc. This analysis should include the following: ▪ The potential habitat loss or deterioration of critical lifecycle stages of marine wildlife VECs, such as feeding, calving and nursing due to ashore and offshore infrastructure related to sea port and shipping routes. ~~Special consideration shall be given to Species at Risk, species listed as VECs or endangered on the list of the COSEWIC;~~ ▪ The potential effects on coastal processes and stability from near shore dredging of sediments and bedrock blasting; ▪ The potential direct and indirect effects on marine fish and marine habitat, including aquatic species at risk, from project activities at Steensby Inlet, Milne Inlet, during the construction, operation, modification/maintenance and decommissioning of port facilities of the project; ▪ Potential impact on marine wildlife and their habitat from under water blasting and dredging, and potential disposal of spoils within	We suggest replacing “marine wildlife” with “wildlife VEC species” in **bullet 1**, and removing the final sentence from this bullet since wildlife VECs have already been defined in **bullet 1 of Section** 8.1.14.1 based on these criteria. We suggest an additional requirement within the impact assessment (related to proposed re-wording above under baseline) as follows: *The Proponent shall evaluate the potential for contaminants to be released to the environment as a result of the Project and be taken up by VEC species.*

		Steensby Inlet; ▪ Risk assessment of introducing and intrusion of non-native, nuisance and exotic species due to ballast water discharge and ship wash; ▪ The potential effects on marine mammals as results of marine shipping, particular ice- breaking shipping and escalating noise level on the port sites and proposed shipping routes; ▪ The potential effects on marine wildlife and their habitats resulting from ballast water discharges in particular, contaminated ballast water; ▪ The potential interactions, and accidental injuries and mortality of marine mammals directly or indirectly from proposed shipping (open water and ice breaking shipping) activities, in particular those marine mammals, which congregate in North Foxe Basin and Hudson Strait where shipping routes pass through; ▪ The potential direct and indirect effects on marine wildlife behaviour, distribution, abundance, migration patterns, species health and reproduction from marine shipping, particular ice breaking shipping activities; ▪ The potential impacts on polar bears and polar bear habitat by year -round shipping, especially ice-breaking in winter and spring with frequent voyages and likely impacts on other wildlife and wildlife habitat (i.e., polar bear prey [i.e. seals], walrus, narwhals and other marine species) and the environment; this includes the effects of increasing noise and repeated disturbance on wildlife; ▪ The potential for habitat loss (including seal dens) and its related impacts, as results of marine shipping, particularly ice-breaking and the elevated noise levels; ▪ The potential effects on marine wildlife and their habitats as results of incidental spills, malfunction and other accidents associated with shipping operations. ▪ Potential for shipping proposed by the Project to contribute to cumulative impacts on marine mammals as results of possible significant increase in ship traffic on the “established” shipping routes; ▪ Assessment of cumulative effects as results of escalated marine traffic from the project in a time frame as long as mining lifecycle, and potential extended mine operation period; ▪ Social-economic impact from shipping, taking into account the impact on marine species which local residents rely on as nutrient sources, and associated harvesting; and ▪ Any other issues and impact as results of shipping operation.	
BIM-118	8.2	8.2 SOCIO-ECONOMIC ENVIRONMENT The Proponent shall present baseline information on the functioning and stability of the socioeconomic environment in the RSA, and predicted impacts on Socio-Economic environment from the Project spanning all the project phases. To assess and predict impacts from the Project, the Proponent shall present each potentially impacted VSEC and their interconnected processes among those VSECs without the induction from the Project development, which will serve as baseline, to evaluate the potential changes and impacts as results from development of the Project. The socio-economic impact can be measured by the designed indicators, and those indicators can also justify the selection of VSECs and measure the accuracy of the predictions, as well as the effectiveness of mitigation measures. Baseline data shall based on both available information from public releases and other available resources, and the Proponent’s community consultations and engagement with local communities. In light that it is unlikely possible to collect all required baseline information contained in the following categories completely, the Proponent should justify the specific limitations in the EIS, and consequently address corresponding measures it planned to address those limitations in its monitoring programs. Also if applicable all socioeconomic data collected should be gender and age-disaggregated in the EIS.	Much of the data used in the socio-economic impact assessment is collected by various departments of government as part of their mandate. Additionally, some limitations to data may be a result of either a small sampling (smaller populations) or other inherent issues with collecting accurate, timely data. As such, we suggest that the highlighted sentence be re-worded to recognize that some limitations regarding data may be under the jurisdiction/responsibility of government and not the proponent, and that other limitations are inherent and difficult to address. Therefore, not all limitations in the EIS may be addressed by the Proponent’s monitoring program.

BIM-119	8.2.3.2	8.2.3.2 Impact Assessment ▪ Assessment of the potential for development of local labour force; ▪ Evaluation the number of jobs to be created directly and indirectly with consideration of local business and supplying contracting; ▪ Discussion of the requirements for employment (e.g., education levels, criminal records, drug and alcohol policies, language abilities etc.), and the potentials of needs to be met by local recruitment; ▪ Assessment of the extent to which the skills of the available workers match job requirements; ▪ Assessment of opportunities afforded to women; ▪ Discussion of the commuting arrangements for local requited workers; especially those who live in the communities without proposed direct air transport to mine sites; ▪ Evaluation of the effect of changes in income earnings on patterns of savings, expenditure and other consumption values; ▪ Assessment of the barriers and incentives to healthy financial management; ▪ Evaluation of the effects of competition for labour between the Project and existing businesses, institutions, and traditional activities; and ▪ Assessment of potential effect on family values, tradition and heritage coherence as results of influence of work environment at mine sites.	Suggest replacing “evaluation” with “estimation”.
BIM-120	8.2.6.1	8.2.6.2 Impact Assessment ▪ Assessment of incremental costs imposed by the Project on public infrastructure and services; ▪ Evaluation of the effect of the Project on public and private sector services and/or infrastructure due to the use by the Proponent directly or indirectly; ▪ Assessment public health and environmental health including drinking water, sewage treatment, housing inspections etc; ▪ An assessment of potential increased demand for health care system, including standard medical system, emergency response and emergency medical care, medivac and other emergencies, as well as challenges brought by the increased demand; ▪ A discussion of the potential to bring in freight for communities by return shipping, and likelihood to share shipping costs with local communities, which will likely reduce the life expenditure of local communities; ▪ Discussion the potential needs for establishing public service facilities to facilitate hunting activates within or in proximity of project areas; and ▪ Assessment of building new and updating the existing structures/shields in hunting routes/grounds to facilitate local hunting activities/traveling in project areas; and ▪ A discussion of community access to Project infrastructure upon closure, including the Milne Inlet tote road, railway and sea port facilities,	**Bullet 1**: it is not reasonable to request the proponent to estimate the costs for government to provide additional services. We believe it is more appropriate to estimate increases in service delivery (if any). **Bullet 3**: it is not clear what NIRB is asking, and its relevance to the Project. **Bullet 6**: it is not clear what “public service facilities” would be appropriate to facilitate hunting activities. Perhaps NIRB can clarify.

BIM-121	8.2.7/ 8.2.7.1	8.2.7 Contracting and Business Opportunities 8.2.7.1 Baseline Information ▪ Most up-to-date statistics and data from socio-economic studies of communities in the Project RSA; ▪ Estimate of economic needs for goods supply, project-related procurement, services contracting, and other economy activities from the Project; and ▪ The economy structure and characteristics of local and regional economy, existing business types, scales of the different sectors of economy, potential capacities to meet the needs from the Project.	**Bullet 1**: the statement should probably list specific statistics and data that are deemed relevant to contracting and business opportunities. Suggest re-wording **bullet 2** as follows: *An estimate of the Project's needs for goods and services.*
BIM-122	8.2.7.2	8.2.7.2 Impact Assessment ▪ Assessment of both negative and beneficial economic effects ~~from~~ of the Project's contracting and business opportunities through project lifespan; ▪ Opportunities for local, regional, and territorial businesses to supply goods and services both directly to the Project and to meet the demand created by the expenditure of new income by employment in the project; ▪ Assessment of the Project effects on other local and regional economic sectors, in particular the competition to other business needs due to limited capacity of local business; ▪ Assessment of the contributions made to public, communities and Inuit from the Project; ▪ Evaluation of the effects of increased income on the local business and economic activities; ▪ Assessment of the of project-related procurement, and potential the capacity to meet the Project needs; ▪ Discussion on barriers to local business capacity building; ▪ Assessment of existing country food supply sources from the Project region and Nunavut, and opportunities to supply for Inuit worker in project; ▪ Assessment of opportunities for local communities to diversify their economic sources and to supply new goods and services; and ▪ Potential impacts on local businesses which developed for the Project and depend on the operation of the Project.	Suggested re-wording of **bullet 1** is highlighted.
BIM-123	8.2.10.2	8.2.10.2 Impact Assessment ▪ A description of the Proponent's understanding on the roles of governments play in the process of the Project development, and associated requirements and obligations for proponents by policies and regulations; ▪ Discussion of how the Project planning meets the needs of regional economy development strategic plan (community wellness initiatives, Hamlet programs, housing etc) if applicable, which are managed by Federal and territorial governments agencies, and Inuit organizations; ▪ Assessment of how conflicts will be managed in current governance regime regarding potential interest conflicts during project development; and ▪ Assessment of efforts will be made by the Proponent with existing regulatory framework and government's initiatives, in terms of education and skill training, community facility development and other initiatives planned by the Proponent.	**Bullet 1** is not impact assessment. Additionally, we question the value of this information and note that this could be an onerous task to fulfill. We suggest this item is removed or re-worded to reduce the apparent scope. It is not clear to us what **bullets 3 and 4** are asking.

BIM-124	9.4.2	9.4.2 Spill Contingency Plans The Proponent shall develop Spill Contingency Plans based on its Environmental Policy, to promote environmental awareness and safety, as well as to facilitate efficient cleanup for spill incidents at the Project and related activities, this plan should include the following elements: ▪ federal and territorial regulations; ▪ The substances covered by the plan which includes but are not limited to: oil, hazardous materials, chemicals and other deleterious substances, etc.; ▪ This plan should apply to all spill (on lands, on water, and on ice if applicable, ▪ exclusive to marine shipping) and cover all project components including railway; ▪ The plans for marine spills from ships shall be developed or adopted based on, among other factors, the types of ships to be used and materials to be transported, in accordance with appropriate national laws and regulations, as well as international protocols and standards. ▪ Training on emergency response staff, including but not limited to distributing MSDS to designated emergency response and health centre staff, proper reaction and proceeding procedures, etc.; ▪ Alerting, notification and reporting procedures; ▪ Duties and responsibilities of key spill response organizations and personnel; ▪ Cleanup strategies, technologies and corresponding inventory of spill response equipment and kits based on different substances of spills and environment conditions where spill possibly occur; ▪ Spill site restoration and remediation; and ▪ Training and other related factors.	**Bullet 5** is poorly worded and probably should read, "The response plans for marine spills from ships…." We suggest that reference to response to marine spills be addressed in a separate plan and that the spill contingency plan address land-based spills only. Spill response planning at the port will be addressed under an Oil Handling Facility (OHF) Plan, which is legally required and implemented only once approved by Transport Canada. Ship-based spill response planning is addressed by future Shipboard Oil Pollution Emergency Plans (SOPEP), which are proprietary and specific to each ship. As such, the project is not able to provide SOPEPs at this time. Therefore, we suggest removing reference to marine spills within this plan. The **final bullet** on training is repetitive of **bullet 5**.
BIM-125	9.4.12	9.4.12 Borrow Pits and Quarry Management Plan With consideration of the project scale and demand for aggregate and quarry materials, the Proponent shall develop a Borrow Pits and Quarry Management Plan; the plan should include, but is not limited to the following information: ▪ Regulations and Guidelines to be complied with; ▪ Principles of borrow pits and quarry development: to use existing pits and quarry sites to the extent possible to minimize the number of opened pits, minimize haul distances and surface disturbance; ▪ Erosion preventions and control measures; ▪ ARD potential testing results for quarried materials and pit walls, and associated mitigation measures; ▪ Environmental and potential archaeological impacts mitigation; ▪ Aggregate extraction and quarry methods, mitigation measures to minimize resulting impacts on environment and wildlife; ▪ Proposed methods for handling massive ice, and plans to manage water released by the thawing of permafrost and ground ice; and ▪ Progressive reclamation strategy and technologies	**Bullet 2**: we note that minimizing the number of opened pits and minimizing haul distances are trade-offs of each other. The fewer aggregate sources, the more haul distance.

BIM-126		9.4.13 Aquatic Ecosystem Management Plan This plan, in conjunction with Non Net Loss Plan, should address mitigation measures to be applied pertaining to protecting and minimizing the impacts on aquatic system from project activities, which will occur in or near water bodies and water courses during construction operation or closure and reclamation phases. The following perspectives should be outlined: ▪ Erosion and sediment control measures for works in or near waterbodies and water courses; ▪ Measures to be applied to protect fish, aquatic biota, and the habitat of both during blasting in or near freshwater and marine environments; ▪ Monitoring and reporting protocols; and ▪ Other compliance requirements indicated and required by the Fisheries Act.	We suggest that this plan will likely form part of the No Net Loss Plan.
BIM-127	9.4.13	9.4.14 Railway Management Plan The Proponent shall develop Railway Management Plan for the Project, it should provide the information that encompasses construction and operation phases with intention to protect environment and promote the safety in its operation, in conjunction with Spill Contingency Plan, Wildlife Mitigation and Monitoring Plan, and other related plans. Key elements in this Plan should include but not be limited to: ▪ Applicable Regulations and Acts, Guidelines; ▪ Mitigation and monitoring plan, as part of Wildlife Mitigation and Monitoring Plan, to monitor the noise and vibration impacts on caribou and other species in the proposed railway corridor; ▪ Mitigation measures to minimize the possible adverse impacts from frequent noise and vibrations on wildlife, if verified by impact assessment as a result of railway operation. The measures might include appropriate scheduling and timing of train operation for daily operation in critical life cycle stages when concentrations of wildlife (i.e., caribou) approach, stay and/or pass or cross in the immediate proximity of rail line areas; ▪ Specific measures to be employed to protect wildlife from accidental injury and kill, and minimize the collision related mortalities; ▪ Measures to prevent spills of fuel/dangerous goods transported by train during operation, taking into account the fragile ecosystem; ▪ Mitigation measures to mitigate impacts, to secure the safety of traveling, fishing, hunting/trapping activities by residents of local communities by snow mobile, sledges and ATVs across rail facilities; ▪ Contingency Plan/Safety Plan to deal with natural disasters, hazardous weather conditions, and malfunction and accidents from failures of mechanical and/or communication equipment; ▪ Technical measures to prevent wind blowing of fine iron ore and other bulk materials; and ▪ Other management plan to mitigate/manage the adverse impacts on the ecosystem and human health directly or indirectly resulting from railway operation.	**Bullet 2** presumes that impacts to caribou will result from noise and vibration but this has not been validated, and consequently that monitoring of noise and vibration will be necessary. We suggest the wording of **bullet 2** be revised to recognize these are not foregone conclusions.

BIM-128	9.4.14	9.4.15 Shipping Management Plan The Proponent shall present a Shipping Management Plan for its shipping operation, with the objectives to protect the marine environment, in connection with the Spill Contingency Plan, the Wildlife Mitigation and Monitoring Plan, and other related plans Principle elements in this Plan should include but not be limited to the followings: ▪ Legislation and regulations relating to shipping operation, and applicable national and internal guidelines; ▪ Protocols for transport of fuel and other dangerous goods; ▪ Ballast water management plan; ▪ Onboard waste management plan (including solid waste, sewage and other domestic waste); ▪ Marine wildlife mitigation and onboard monitoring plan (e.g. monitoring personnel, monitoring protocols, responding equipment, accident reporting procedures and action plan); ▪ Smuggling prevention measures; ▪ Third party's liabilities; ▪ Emergency/contingency plan and preparedness plan, spill kit, relating contents and equipment for accidental spills of fuel and chemicals; ▪ Contingency plans for extreme weather conditions and malfunction during shipping operations, reporting/action procedures, preparedness of adequate resources to respond to a large fuel spill from a cargo vessel in transit; ▪ Measures to mitigate impacts to safety of traveling by snow mobiles, sledges and other means, fishing and hunting/trapping activities by residents of communities on shipping routes; ▪ Measures intended to mitigate potential socio-economic impacts as results of shipping; and ▪ Other shipping related issues.	The information requested in bullets 8 and 9 will not be available as the ore carrier fleet has not been built and charter ships (including tankers) have not been contracted. We suggest that we can speak to the regulatory regime and scope of marine spill prevention and response only.

BIM-129		9.4.18 Roads Management Plan The Proponent shall develop a Roads Management Plan apply to the Tote Road and other access/service roads in the Project (exclude the railway) covering construction, operation and reclamation phases of the project. In conjunction with the Spill Contingency Plan and the Wildlife Mitigation and Monitoring Plan, this plan shall include but are not limited to the following sections: ▪ Design criteria; ▪ Construction and maintenance methods and materials; ▪ Road design features such as passes facilities for wildlife and other ground transport vehicles (e.g. ATVs, snow mobiles and sledges); ▪ Speed limits of each type of roads; ▪ Construction and operation management, including dust suppression; snow drift handling and snow removal; surface runoffs including spring freshet and flooding; and sediment control measures during construction and operation; ▪ Access and usage management for hunters and public; ▪ Mitigation measures and protocols in construction and operation to minimize impact to wildlife, including wildlife kill and following up proceedings; ▪ Safety procedures, emergency reporting and actions for fuel/chemical pill, and other emergency events and associated facilities; and ▪ Reclamation plan and other options (use by the local community upon the project closure shall the local community request).	The content of **bullets 1 and 2** are related to road design and not road operation /management. We suggest these are removed. The content of the **final bullet** will be covered in the Abandonment and Restoration Plan, not in a road operation plan. As such, we suggest this bullet also be removed.
BIM-130	9.5.1	9.5.1 Occupational Health and Safety Plan The Proponent shall present an Occupational Health and Safety Plan; this plan should focus on the following elements in conjunction with Spill Contingency Plan, Risk Management Plan, and Noise Abatement Plan etc: ▪ The appropriate policy and guidance regarding interaction with Nunavut's medical system when this plan is implemented (e.g. processes, and triage); ▪ Good safety practices, safety awareness programs; ▪ Employee involvement and training programs regarding awareness of employee responsibilities in environmental and health and safety management, such as safety orientation; hazard analysis; first-aid training etc; ▪ Risk management, mine rescue action plan, spill response, fire-fighting and prevention; ▪ Preparedness of mine safety equipment and devices: ▪ Safety procedures and emergency reporting, and actions; ▪ workplace monitoring and control; and ▪ First aids training and occupational medical surveillance.	As previously stated, we do not believe Occupational Health and Safety is to be addressed in an impact assessment. **Bullet 4**: Mine rescue action plan is too detailed for this stage of the Project, and it is a legislated requirement to be approved by the Worker's Compensation Board. We do not believe it is appropriate to contain in an EIS. Spill response is addressed elsewhere. Fire-fighting and prevention is vague and can be addressed at some level in the accidents and malfunctions section of the EIS. **Bullet 6**: Safety procedures are too detailed for an EIS. We suggest that the OHS Plan describe the framework for managing health and safety only.

BIM-131	9.5.2	9.5.2 Community Involvement Plan The Proponent shall present a Community Involvement Plan. The major objectives should include: ▪ Mechanism for providing information to the public and potentially affected communities the regular update of project progress, initiatives and future work plans; ▪ Identify the communication methods for communication with public and communities; ▪ Establishing effective two-way communications approaches for collecting public concerns, and addressing those concerned issues to public; ▪ Measures to assist the communities to address and solve social problems related to project development, and counselling services to employees and their families regarding matters such as substance abuse, and work-related stress management, family support, etc.; ▪ Framework and mechanism to identify community needs and to provide solutions, such as allocating resources to meet the needs; ▪ Outline an approach to promote the participation of Nunavummiut in Project employment by setting up a preferential recruitment policy; ▪ Plans to provide access for northern and local businesses for contracting opportunities and purchases of local products (e.g., country food); ▪ Setup of appropriate approaches to engage the public and communities, and mechanisms to incorporate the input from communities to update the Environmental Management Plan; ▪ Obtaining public input to environmental and health and safety management decisions; ▪ Discussing of procedures for community-based monitoring activities regarding social, cultural, and ecological conditions in order to determine if, when, and how mining can contribute to community sustainable development; and ▪ Discussions on how the public, in particular the residents of the North Baffin Region, could contribute to the Project implementation, including the designing, implementation of management and monitoring strategies.	**Bullet 9**: We do not believe it is appropriate to see public input into management decisions regarding health and safety.