

**Baffinland Responses to FEIS Information Requests**

**April 25th, 2012**

**Aboriginal Affairs and Northern Development Canada**

<b>Number</b>	<b>Request</b>	<b>Baffinland Response</b>
4	The proponent is asked to provide a decommissioning strategy or plan for existing waste storage and stabilization ponds.	See Section 8.9 of the Abandonment & Restoration Plan presented as Attachment 10 in Appendix 3B.
5	AANDC requests the Proponent provide mass balance modeling of nitrate losses to the aquatic environment or provide a rationale why this is deemed no longer required.	Baffinland committed in FEIS Section 3.4.1.6 to applying industry best practices to limit nitrogen-containing compounds in the runoff. These measures have been successfully applied at other arctic mines. We suggest that there is limited value in estimating the concentrations of nitrogen in the runoff since such estimates are based on a number of questionable assumptions about the amount of explosives residue left after blasting, entrainment mechanisms with waste rock and seepage from the waste rock pile. Additionally, as demonstrated in a number of mining operations, usually elevated nitrogen levels in runoff is related to poor explosives handling practices.
6	AANDC requests the Proponent identify where Commitment No. 222 is addressed in the FEIS. If it has not been included, the Proponent is requested to provide the site drainage plans as provided for in the commitment.	The Surface Water Management Plan presented in Volume 3, App 3B, Attachment 5 is based on preliminary layouts and site drainage plans. This management plan will be updated as required during the construction and operation period. As-built drawings (commitment 222) will be incorporated once the facilities are constructed.
7	AANDC requests the Proponent identify where Commitment No. 227 is addressed in the FEIS. If it has not been included, the Proponent is requested to provide the discussion that is detailed in the commitment.	Commitment # 227 was as follows, "The resultant effects of the redistribution of water on freshwater biota and water quality will be discussed in Sections 3 and 4 of Volume 7." Redistributed water flows/volumes was relevant and incorporated into the water quality modelling for aqueous point sources, presented in Section 3.4.2.2 (starting on Page 141) of Volume 7. The flows applied were consistent with the site water balances presented in the water licence application in Appendix 3B, Attachment 5. The re-distributed flows applied on the modelling are presented on each of the modelling tables starting with Table 7-3.16. Potential effects of water diversions on aquatic biota and habitat were assessed in the FEIS under key questions 1 and 2 (i.e., effects on Arctic Char health and condition and Arctic Char habitat). Specifically, potential effects of diversions on stream hydrology, water quality, and habitat and ultimately aquatic biota were considered and assessed in the FEIS. See for example, Sections 4.5.3.5, 4.5.5.10, 4.5.6.7, and 4.5.7.5.
8	AANDC requests the Proponent provide water balance schematics for existing conditions as per AANDC DEIS Technical Review Comment No. 22. The Proponent is requested to provide the project site water balances for existing conditions prior to the close of the FEIS technical review period (with sufficient time for review and feedback by reviewers).	Please note that schematics of existing conditions were not provided as they are not deemed relevant or necessary for adequate restoration of the environment post project. Prior to construction it may be assumed that all drainage conditions and site "water balances" are in their drainage natural state. Upon reclamation water balances and drainage will be returned to a state typical of the Baffin Island environment.
9	AANDC requests the Proponent provide estimates of the quality of the future pit lake after closure including early closure scenarios.	Please refer to FEIS Volume 3, Appendix 3B, Attach. 5 (Waste Rock Management Plan), Annex 5. Table 2 provides a description of the preliminary predicted water quality of the pit seepage at years 6, 10, 14 and 21. Baffinland considers these values representative of the water quality that can be expected at closure, if the mine were to close at any of these respective dates.
10	AANDC requests the Proponent clarify how test plots will be used to promote natural re-vegetation and to further substantiate why reseeding cannot be undertaken in some locations predisposed to terrestrial plants without the risk of introducing invasive species.	Test plots will include a combination of treatments to identify the most effective re-vegetation methods. Methods that will be used to promote natural r-vegetation include treatments include: surface treatments (e.g, rough and loose, micro-rills), fertilizer application, organic material spread, etc. These activities will be conducted as part of the reclamation trials and as permitted by research applications. Seed spreading will be considered when a suitable supply of local plant seeds becomes available. Seed suppliers will have to be certified to ensure that invasive species are not a component of the seed mix.

11	AANDC requests the Proponent provide rationale to support the use of 15% estimate of PAG waste rock in the FEIS document.	The percentage estimated PAG on a sample basis represents specifically the percentage of samples that were PAG out of the total number of samples analyzed to date (i.e., 18%). The percentage of PAG on the basis of the developed waste rock block model utilizes the percentage of samples analyzed as PAG for each modeled unit to generate an estimated PAG tonnage. The sum of these PAG tonnages on this basis represents 15% of the total waste rock as outlined in Table 6 of Appendix 6B-1. Thus, the 15% identified in Table 6 can be defined as "percentage PAG normalized to tonnage" and is based on the waste rock block modeling that subdivides the waste rock on the basis of zonal relationships around the iron ore. The waste rock block model tonnage estimates presented in Table 6 of Appendix 6B-1 are the most recent and most accurate estimates available to date. As the waste rock block model continues to develop over time, refined waste rock estimates will be used to update pertinent sections of the Waste Rock Management Plan as part of subsequent revisions to this document.
12	AANDC requests the Proponent develop a complete Incineration Management Plan, as delineated in NIRB Guideline 9.4.7.	It is in the opinion of Baffinland that required incineration management is best suited to be described in the Waste Management Plan due to its integration with the rest of the Project's waste management strategy. Incineration Management is discussed in detail in the FEIS Volume 3, Appendix 3B, Attachment 5 (Management Plans), Solid Waste Management Plan for Construction, Operation and Closure, Section 4.5.
13	The Proponent is requested to clarify whether their spill response planning in terms of manpower and equipment has addressed the possibility of a spill from the fuel barge proposed for overwintering in Steensby Port and to confirm the size of the fuel storage vessel.	The spill response planning for the fuel vessel will include manpower and equipment to deal with potential spill. A meeting is scheduled with Transport Canada in late April 2012 to discuss such requirements.
14	The Proponent is requested to provide a discussion on the effect of the Arctic climate and the remote location of the Project on response times and methodologies in all spill contingency plans.	Baffinland recognizes that the Arctic climate and the remote location of the Project will influence response times and methodologies in all spill contingency plans. It is Baffinland's intention to establish meetings with relevant regulatory agencies (Transport Canada, CTA, Coast Guard, GN) in order to develop effective methodologies to deal with emergency response situations.
15	The Proponent is requested to include a discussion on Purchasing Controls in the Hazardous Materials and Hazardous Waste Management Plan as per the NIRB Guidelines, and to include a discussion of other hazardous materials that will be used on the project, in addition to fuel products and explosives.	Appendix 10C-5 Section 4 describes the lifecycle management approach (which includes purchasing controls) for all hazardous materials and hazardous wastes. Of all hazardous materials, only fuels and ammonium nitrate are transported and stored as bulk materials. All other hazardous chemicals or waste will be transported, stored and handled according to the MSDS.
16	AANDC requests the Proponent provide additional factual and preliminary analysis that the cuts and fills will be stable over the railroad operational period.	Additional factual field data and preliminary analyses will be provided as part of planned field investigations to confirm the initial design and support the final design. As indicated in the referenced report, the majority of the soils along the railway will have low fines which will allow them to drain quickly when they are excavated and during thawing. Slopes cut in these soils will therefore be stable relatively quickly after excavation. Slope stability analyses will be carried out for cut and fill areas as part of the final design.
17	AANDC requests the Proponent undertake preliminary thermal modeling of the Project infrastructure particularly for the waste rock dump to confirm the integrity of the designs. Preliminary modeling results should be provided prior to the close of the technical review period.	As indicated in our commitment, thermal modeling will be carried out in the final design for the waste rock pile. We are confident that with a proper design, the waste pile will be able to sustain the permafrost conditions of the existing ground in the area. Measures will be employed to allow for proper drainage that prevents seepage to the surrounding environment. We will also carry out modeling to show appropriate methods to contain the permafrost conditions as part of the reclamation plan at mine closure. Based on typical waste pile management plans in other mines in the Arctic, we are confident that the waste pile at the site can be designed to meet the above noted requirements. The actual mining operation and the start of waste rock pile operations will not occur immediately, while the reclamation work will take place at a much later date. For more information please refer to the FEIS Volume 3, Appendix 3B, Attachment 5, Waste Rock Management Plan.

18	AANDC requests the Proponent provide stand-alone Preliminary Design Criteria documents for foundation, road and railway construction reflecting their current understanding of the unique site conditions.	Baffinland acknowledges the need for these documents, there completeion is currently underway and they will become available as we progress with the design.
19	AANDC requests the Proponent provide information on how accumulated sediment/sludge collected in site reservoirs will be managed at closure.	The sediment/sludge will be tested to ensure it meets regulatory thresholds for non-hazardous wastes. If it does the ponds will be drained and the sediment/sludge applied to the waste rock stockpile as described in Attachment 5: Waste Rock Management Plan, Appendix 10D-5. If not the pond will be drained and the sediment/sludge shipped off-site for disposal as hazardous waste.
20	The Proponent is asked to confirm what version of the RECLAIM model was used in the security estimate provided in the water licence application.	RECLAIM v. 6.1 licensed March 2009 was utilized.
22	AANDC requests the Proponent review and provide a revised Table 3-1 in Appendix 10G to include all major project components.	Table 3-1 in Appendix 10G includes all major project components.
23	AANDC requests the Proponent provide in the closure plan, for the Licence application, the disturbance areas associated with each major project component (Milne Port, Steensby Port, Mine Site, road and railway) and each major facility (e.g., waste rock pile, open pit, cams, tank farms, air strips, etc.) associated with each component. Also provide a table which lists the project component, the area of disturbance, the bond cost for each project component, and the total bond cost.	FEIS Volume10, Appendix 10G Preliminary Mine Closure and Reclamation Plan - Appendix B,presents this information for each area of the project. The closure costs cannot be attributed to individual project components due to the overwhelming costs associated with mobilization and off-site shipment of materials.
24	AANDC requests the Proponent provide a list of criteria and success standards for crossing of rivers and creeks to be used for closure management purposes. Address issues such as: removal and disposal of bridges and other crossing structures; the slopes of the re-graded approaches; how pinch points caused by crossings will be removed; and stream erosion and sediment control measures.	To the extent possible, the intent of closure is to re-establish the site to pre-development conditions. Removal of bridges and crossings will ensure that slope are stable, regraded and that erosion is prevented. The post-closure monitoring will ensure that these objectives are met.
27	AANDC requests that the Supplementary Questionnaire for Mine Development be submitted as part of a stand-alone water licence application.	This request is deemed unnecessary given the letter provided by the Nunavut Water Board on March 9th 2012 decreeing the Type A Water License Application Complete.
28	The proponent is asked to revise the Environmental Monitoring Plan to include a strategy for monitoring, reporting and reviewing data in accordance with commitments made in the FEIS.	Please refer to Volume 10, Section 11.
Annex A	Information Requests to Enhance Stand-Alone Water Licence Application	Response from NWB to Baffinland: AANDC in its submission stated that the Application should have been submitted as a stand-alone document in which the NWB Supplementary Questionnaire for Mine Development should be included. However, the Board notes that the Application is consistent with the conditions set out in the Detailed Coordinated Process Framework (DCPF). <sup>6</sup> Section 8 of the DCP states as follows: "...The FEIS shall include as appendix water licence application(s) with cross referencing to the FEIS to eliminate or reduce duplication and for ease of Parties review. The Proponent may elect to submit a stand-alone Type A water licence directly to the NWB (with no cross referencing to the FEIS). The Proponent shall submit to the NIRB and the NWB a concordance table to NIRB's PHC Decision and NWB SIG (MM3) Guidelines and subsequent project specific guidelines issued for pre-development or "exception" activities. Should the Proponent decide not to submit a Type A water licence the EA process will proceed..."

General Water License Application		
1	Block 13 references a table in Attachment 5 of the application. AANDC recommends that this table be included in block 13.	Refer to NWB letter dated April 13, 2012. The NWB's determination is that the application has satisfied the requirements of s. 48(1) of the Nunavut Waters and Nunavut Surface Rights Tribunal Act. AANDC's recommendation may be an improvement, but is not deemed necessary since the information is already included in the Water Licence Application documents.
2	Block 13: AANDC notes that the drawing references for Railway Construction are mislabelled.	<p>Corrections are as follows:  Ravn Camp Site - Water Supply and Wastewater Disposal – GA Plan (H337697-7000-10-042-0004)  Mid Rail Camp Site - Water Supply and Wastewater Disposal – GA Plan (H337697-7000-10-042-0006)  North Cockburn Lake Rail Camp Site Layout - Water Supply and Wastewater Disposal – GA Plan (H337697-7000-10-014-1007)  South Cockburn Lake Rail Camp Construction Works Site Layout-( H337697-7000-10-014-1005)</p> <p>Please note these corrections had previously been addressed in the “Errata and Clarification Document for the Application for Type A Water License for the Mary River Project” sent to the NWB on March 9th, 2012.</p>
3	AANDC recommends inclusion of a table to summarize the quantity and quality of waste in Block 15 rather than referencing the Waste Management Plan.	Refer to NWB letter dated April 13, 2012. The NWB's determination is that the application has satisfied the requirements of s. 48(1) of the Nunavut Waters and Nunavut Surface Rights Tribunal Act. AANDC's recommendation may be an improvement, but is not deemed necessary since the information is already included in the Water Licence Application documents.
4	The Steensby Port Oil Pollution Emergency Plan (OPEP) mentions an active hunting camp in Steensby Inlet which is likely to be a user of water. Block 18 should include this camp and any other traditional sites that are within the Project area.	Refer to NWB letter dated April 13, 2012. The NWB's determination is that the application has satisfied the requirements of s. 48(1) of the Nunavut Waters and Nunavut Surface Rights Tribunal Act. AANDC's recommendation may be an improvement, but is not deemed necessary since the information is already included in the Water Licence Application documents.
5	Block 21 references the Mine Closure and Reclamation Plan for security information. The estimated closure and reclamation cost (total costs for IOL and Crown land) should be included in block 21.	Refer to NWB letter dated April 13, 2012. The NWB's determination is that the application has satisfied the requirements of s. 48(1) of the Nunavut Waters and Nunavut Surface Rights Tribunal Act. AANDC's recommendation may be an improvement, but is not deemed necessary since the information is already included in the Water Licence Application documents.
Management Plans		
6	Spill Contingency Plan, Section 4.4: Training exercises should be specific to the Spill Contingency Plan and not the OPEP.	All the management plans were presented as draft document and will not be finalized until the Project Certificate and the Type A Water Licence are granted. Baffinland also notes that its Management Plans are for internal use, to manage its operations. Furthermore, Baffinland is also in discussion with Transport Canada for the establishment of meetings that could include other relevant agencies (GN, Coast Guards) to guide the finalization of Baffinland's Emergency Response & Spill Contingency Plan, SAR and port security. Details of training exercises and participation of external organizations will be discussed by the work group.
7	Spill Contingency Plan, Annex 1 (Site Maps and Drawings) references Appendix 3B, Attachment 9 (Drawings) and Annex 2 (Spill Kits and Contents) references Annex 4 (Bulk Cargo Transfer Procedures/Tug and Ice Management Vessel Fuelling) of the Milne Port OPEP. This plan should be a stand-alone document complete with all referenced materials and this plan should be revised accordingly. It is noted that the reference to Annex 4 of the Milne OPEP is incorrect.	Baffinland reiterates that its management plans are for internal use, for Baffinland to manage its operation. We note the incorrect reference in the OPEP.

8	Spill Contingency Plan, Annex 5 includes MSDS for only 4 of 32 chemicals listed in Annex 4. It is also noted that Annex A of the Hazardous Materials and Waste Management Plan includes only 3 MSDS. AANDC recommends that the Spill Contingency Plan and Hazardous Materials and Waste Management Plan include MSDS for all chemicals and hazardous materials on site, respectively.	Note that only 4 chemicals are handled in bulk - Jet A fuel, arctic diesel, marine diesel and ammonium nitrate. All other chemicals are handled in much smaller quantities and in appropriate containers for transportation, handling and storage. MSDS are provided for 32 chemicals. The Emergency Response and Spill Contingency Plan, the OPEPs and the Hazardous Chemicals and Hazardous Waste Management Plans all deal with the same chemicals. For the Type A Water Licence application, there is no need to attach the same MSDS sheet in each document.
9	Surface Water and Aquatic Management Plan, Sections 6.8.2 and 7.4.2: Improper referencing of Table 10.1 (Sections 6.8.2 and 7.4.2 references Tables 8.3 and 8.1 respectively). The Quality Assurance/Quality Control (QA/QC) Plan referenced in Section 10.3 should exist as a stand-alone plan.	1) This comment is correct, the report will be updated in the next draft of the management plans. 2) Baffinland's current QA/QC Plan is presented as an attachment to the Fresh Water Supply, Sewage and Wastewater Management Plan (Appendix 10D-3).
10	Waste Management Plan, Section 4.6: Incomplete sentence. AANDC requests that the reference to the landfill drawing be provided.	This will be updated in the next draft of the management plans. The location of the landfill drawings and locations are in Annex 2.
11	Hazardous Materials and Hazardous Waste Management Plan, Section 4.2: Incomplete sentence. AANDC recommends that this sentence be amended to identify the location of MSDS of hazardous materials on site.	This will be updated in the next draft of the management plans. The location of the landfill drawings and locations are in Annex A.
12	Hazardous Materials and Hazardous Waste Management Plan, Section 5.2: Table 5-3 is referenced but it appears as though the wrong table was referenced (Table 5-2 appears to contain relevant information).	This comment is correct. The Table was improperly referenced and this will be updated in the next draft of the management plans.
13	Relevant Environmental Protection Plan (EPP) procedures should be included in section 4.6 of the Hazardous Materials and Hazardous Waste Management Plan rather than referencing a section in the FEIS.	All the management plans were presented as draft documents and will not be finalized until the Project Certificate and the Type A Water Licence are granted. EPP procedures will be developed as required.
14	Environmental Protection Plan, Section 2.18: The wrong table is referenced (Table 2.18-3 not 2.18-2)	This comment is correct. The Table was improperly referenced and this will be updated in the next draft of the management plans.
15	Environmental Protection Plan, Section 4.0: This form was given the wrong title (Request for Revision to an Operational Standard not Landfill Facility Inspection Form).	This form was not mislabeled. Please refer to the 66th page of the Environmental Protection Plan.
16	Section 4.3 (5) of the Environmental Monitoring Plan references Table 2-20 that does not exist in the plan. A reference is required for section 4.2.1.1 and improper references were observed in sections 4.2.1.2 (Table 4-4 not 4-4.19), 4.5 (Appendix A not Annex 1), 4.6.1 (Table 4-10 not 2-19). AANDC recommends that the proper references be identified.	Section 4.3 should be referencing Table 4.5 and 4.6. The correct reference for 4.2.1.1 is Table 4.3. The corrections stated in the comments are also correct and the EMP will be updated accordingly, when the next iteration occurs.
17	Preliminary Mine Closure and Reclamation Plan, Table 9-1 is mislabelled in the Table of Contents as Table 8-1.	This comment is correct. The Table was improperly referenced and the table of contents will be updated in the next draft of the management plans.

18	Preliminary Mine Closure and Reclamation Plan Section 6.1 references sections 5.2, 5.3, 5.4, and 5.6 but these sections do not exist in the plan. The sections referenced in 7.1 and 8.13 do not apply and require updating. Section 4.1.1, referred to in Section 8.11, does not exist. AANDC recommends that the proper references be identified.	1) This was intended to reference 6.2, 6.3, 6.4, 6.6 respectively. 2) Please note that reference in 7.1 and 8.13 are one chapter below what they should be, and will be changed to the correct reference. 3) It should be 4.1.1 not 5.1.1, this will be updated in the next draft of the management plans..
19	The drawing referenced in Section B.3 of Appendix B of the Preliminary Mine Closure and Reclamation Plan should be included in the plan.	Drawing H337697-0000-60-013-0001 can be seen in the drawing package of the Type A water License Application: Attachment 9
20	Sections B.3.1 and B.3.3 of Appendix B of the Preliminary Mine Closure and Reclamation Plan reference the cost for airstrip lighting in the previous Abandonment and Reclamation (A&R) Plan. AANDC recommends that these costs be included in the current plan.	These costs are not considered relevant for a Type A water License.
21	The drawing referenced in Section B.4 of Appendix B of the Preliminary Mine Closure and Reclamation Plan should be included in an appendix.	Drawing H337697-0000-60-013-0001 can be seen in the drawing package of the Type A water License Application: Attachment 9
<b>Miscellaneous</b>		
22	It is noted that the Health and Safety Plan, the OPEP for Milne Inlet and the OPEP for Steensby Inlet are not within the scope of a water licence. As such, AANDC recommends that these plans not be included in the water licence application.	Noted.
23	There are several references for document and drawing numbers in the management plans (Attachment 5). In order to make it easier for people to find these documents, AANDC recommends that document and drawing numbers be accompanied by the title and location of each document and/or drawing.	Refer to NWB letter dated April 13, 2012. The NWB's determination is that the application has satisfied the requirements of s. 48(1) of the Nunavut Waters and Nunavut Surface Rights Tribunal Act. AANDC's recommendation may be an improvement, but is not deemed necessary since the information is already included in the Water Licence Application documents.
24	Environmental Design Basis, Section 6.2.2.2: Table 6-126 is referenced but does not exist (Table 6-12 appears to contain relevant information).	This comment is correct. The Table was improperly referenced and the table of contents will be updated in the next draft of the management plans.
25	Potable Water Treatment Plant Design, Table 4-5: Clarification is requested as to whether "km water quality" is for 3km Lake or 32km Lake.	This is reference for 3km lake.

Canadian Transport Agency		
Number	Request	Baffinland Response
1	<p>BIMC had committed to providing additional information in the FEIS regarding the manner in which it would deploy resources to respond to spills of contaminants or fuel from derailments of trains given the remoteness of the project site and the constraints which the high Arctic climate can pose. In their response to this earlier request, BIMC indicated they "would draw from the experience gained at ArcelMittal's Mount Wright-Port Cartier railway operations in finalizing the Emergency Response Plan for railway operations". This information was not found.</p>	
2	<p>Although the number of trains travelling the proposed railway line will be limited in comparison to the main lines of major railway carrier, a considerable portion of the railway line would be in close proximity to large water bodies. As was explained in the CTA's review of the draft EIS, deploying outside resources, such as drawing upon firms specialized in emergency response, in a timely manner may often be difficult given the project's remoteness. Maintaining trained teams of BIMC employees prepared to intervene rapidly and effectively despite the fact that these teams will have limited experiences upon which to draw compared to a major railway carrier may also add to the difficulty of rapidly responding to spills. The proponent is therefore requested to provide such a discussion of it will take into account the project's remoteness and the rigorous meteorological conditions in its Emergency Response Plan.</p>	<p>The railway emergency response plan prepared by Canarail (Appendix 10D-9.2) draws on experience gained from various rail operating companies, including the Mount Wright-Port Cartier Operation. In addition, Baffinland wishes to establish meetings with representatives of Transport Canada, CTA, and, the GN to focus on the requirements of the emergency response plan. Issues of concern include training of ERT team, necessary equipment to respond to emergencies, etc.</p>



Department of Fisheries and Oceans		
Number	Request	Baffinland Response
7.1.2	Provide an analysis of potential compensation options, taking into consideration the hierarchy of preferences outlined in Fisheries and Oceans Canada’s Policy for the Management of Fish Habitat (1986). The analysis should include feasibility of various options and supporting rationale for dismissal prior to proceeding to the next compensation approach in the hierarchy, if necessary.	Baffinland is engaged in an ongoing process with DFO to identify acceptable concepts for offsetting works for fish habitat. This process will be in accordance with the DFO Heirarchy of preferences. The FEIS provides a reflection of the status of this process at the time of issuance of the FEIS. If requested, Baffinland and DFO can make a joint presentation to NIRB on status of this work.
7.1.3a	DFO requests that the Proponent confirm whether there will be channel realignments associated with culvert and bridge installations along the railway or the access road.	Each crossing will be assessed and any recommended channel alignments will be identified and assessed, and DFO consulted for Advice on its acceptability.
7.1.3b	If channel realignments are required DFO requests that the proponent describe the mitigation measures which will be incorporated into the newly realigned channel to ensure stability and mitigate negative impacts to fish and fish habitat.	As part of the Project EPP. Site-specific mitigation measures will be identified and provided to DFO prior to any construction action.



Environment Canada		
Number	Request	Baffinland Response
11a	Provide monthly flow diagrams comparable to the annual flow diagrams found in Volume 3 Appendix 3B Attachment 5 Appendix 100-2 Figures 1 through 7.	These figures present typical site annual water balances for each sites during construction, operation and closure (see Appendix 1).
11b	Complete the assessment of water diversion and withdrawal using the 1:10 year dry period to determine if the 10% threshold will be exceeded when the area is subject to typical dry conditions.	Baffinland will work to provide Environment Canada a response to this request by May 15th, 2012.
12	EC request that the Proponent provide a comparison between the current estimated pond design capacity and the capacity of the ponds if they were designed to meet the same safety standards using a comparable return period but incorporating snowmelt rates.	Design criteria for ponds are presented Vol 3, App 3B, Attachment 5 - Waste Rock Management Plan (Annex 1 Stormwater Management and Drainage System Design). Section 4 of this document details the approach used for pond design.
21	Given the critical importance of magnitude in assessing the overall rating for residual effects, EC requests that the Proponent clarify what is meant by level I, II and III magnitude ratings and demonstrate that the reworked magnitude rating system represents a conservative assessment of residual impacts.	This approach is a methodology that has been applied in the environmental assessment of other approved projects (e.g., Galore Creek). The approach is based on the assumption that water quality below the water quality objectives has a negligible effect, and level of magnitude of an effect are established based on the magnitude of exceedance of the threshold. CCME guidelines generally apply safety factors which can range up to 100x the criterion, so we believe the approach used is defensible.
22a	Provide sample calculations to show what values were substituted into the equation listed on p. 114 (e.g. CD, QD, CR, ~) to arrive at the mean and 90th percentile concentrations in the receiving environments presented in Tables 7-3.16 - 7.3-22.	Two screen shots have been presented as Appendix 2, showing the excel equations used in the spreadsheet to calculate the mean and 90th percentile concentrations, respectively, in one of the tables.

22b	Provide the raw baseline concentration and flow data in a modifiable excel format to facilitate EC's verification of calculated concentrations in mine contact water and sewage discharges.	The Mine Site water quality baseline database in Excel will be provided directly to Environment Canada.
23	EC requests that the Proponent provide revised estimates of their SSWQOs using data that is representative of background concentrations and using a less biased estimator of central tendency to establish each respective SSQWO so that more protection is afforded to the environment. A conservative approach would be to use the 25th percentile.	This is not an information request. We will be prepared to engage EC on this topic following the IR submission.
24a	The CEAA and thus the CEA Registry does not apply to northern environmental assessment processes. The next iteration of this Plan should be updated to reflect the Nunavut context. Section 2.5.1, p.6 suggests that the temporary magazines established along the railway corridor will likely need to be heated to ensure performance of explosives and the energy source for heating will be on-site generators. The Plan states, "In the event a generator is required, appropriately sized spill kits will be located on site."	It is noted that the CEAA and CEA does not apply in the northern environment. The next iteration of the Plan will reflect the Nunavut context.
24b	Given that on-site generators will be the only source of energy at the magazines EC requests that the Proponent update the plan to include a commitment to equip all the temporary magazines with appropriate spill kits.	Baffinland commits to an appropriate Spill Kit being installed at each of the temporary explosive magazines.
25a	Clarify the treatment and fate of propylene glycol used in de-icing operations.	A limited amount of over spray is expected during the application of de-icing products containing propylene glycol. The de-icing products containing propylene glycol will be applied on the aerodrome apron so any over spray is not expected to enter the environment. Based on information available, de-icing products being used containing propylene glycol are neither listed as a hazardous waste nor does it exhibit any of the characteristics that would cause it to be classified or disposed of as an RCRA hazardous waste. Any large amounts of extra over spray will be collected and disposed of in an environmentally acceptable manner.
25b	Provide more information on the design of the drainage system for collecting oil and propylene glycol from airstrips (for example it is unclear if the airport perimeter will be surrounded by a ditch and the ditch water reclaimed).	All fueling and de-icing activities will be conducted on the impermeable aerodrome apron. Any small quantity liquids on the aerodrome from fuel spills will be collected with absorbents. All drainage from the apron will be contained, collected and treated as oily waste water.
25c	Clarify what is meant by "interim treatment for propylene glycol", and whether recycling will be used.	Interim treatment for de-icing products containing propylene glycol was considered. Due to the predicted low amount of waste propylene glycol expected, recycling is no longer being considered and used de-icing liquids containing propylene glycol will be collected and disposed of in an environmentally acceptable manner.
26	The Plan should be updated to reflect the thresholds that will be applied to each respective discharge taking into consideration whether the MMER limits apply, and noting that these are minimum national standards; more stringent discharge criteria may be warranted for various receiving environments.	The Plan will be updated on a basis that the Project Certificate and Type A Water Licence requirements.

27	EC requests that the Proponent clarify if the brine recovered from tunneling activities will be re-used for drilling purposes and provide a discussion of the alternatives available for brine disposal including the final disposal method.	Quantities of brine are expected to be minimal. Upon removal of solids via sedimentation ponds, clear overflow will be discharged.
28a	This Section should be revised to state that the EH5 Management System also includes Environmental Effects Monitoring (EEM) as per the Metal Mining Effluent Regulation (MMER) Schedule 5 requirements. The EEM conducted under the MMER does qualify and cannot be substituted for the Aquatic Effects Monitoring Plan (AEMP). The AEMP is a requirement of the Type A water licence and is a more comprehensive Plan that typically covers additional monitoring requirements beyond what is required by EEM under MMER. However, EC supports the inclusion of the MM ER EEM as a subcomponent of the mine's AEMP. To this end, EC encourages the Proponent consult the following Guideline, Guidelines for Developing and Implementing Aquatic Effects Monitoring Programs for Development Projects in NWT, to assist them with harmonizing the EEM MM ER and AEMP requirements under one Plan. When this Plan has been developed, EC would be pleased to review it. EC requests that a coordinated framework outlining the various monitoring components, including study design, be provided in advance of the technical meetings.	Thank you for the reference. The Environmental Effects Monitoring Study Design Framework as presented in Volume 10, Appendix 10D-14 satisfies the requirements of the MMER Schedule 5.
28a	Section 4.2, p. ZZ indicates monitoring and reporting requirements under regulatory approvals such as the water licence, QIA land lease, land use permits and fisheries authorization will include: <ul style="list-style-type: none"> <li>• Routine inspections and monitoring of various aspects of the operations;</li> <li>• Surface Water Quality Monitoring;</li> <li>• Wastewater Treatment Facility Discharge Monitoring;</li> <li>• Bulk Fuel Storage Facility Discharge Monitoring (Oils and Greases); and</li> <li>• Vehicle Maintenance Shops Wastewater Monitoring (Oils and Greases).</li> </ul>	Thank you for the reference. The Environmental Effects Monitoring Study Design Framework as presented in Volume 10, Appendix 10D-14 satisfies the requirements of the MMER Schedule 5. Perhaps the two regulators could develop a harmonization of their requirements and Baffinland will work with them to achieve compliance.
28b	EC understands there will also be a wastewater treatment facility aSSOciated with the emulsion plant (p. 21 of Fresh Water Supply, Sewage and Wastewater Management Plan). EC seeks clarification on what level of discharge monitoring will be conducted on discharges from this treatment plant. 4.2.1.2, p.24 indicates "monitoring of the land farm involves inspection of physical integrity of the berm and has work contact water monitoring."	Contact water from runoff collected at the emulsion plant will be evaporated. No discharges expected. Perhaps the two regulators could develop a harmonization of their requirements and Baffinland will work with them to achieve compliance.

28c	As stated, the sentence above is incomprehensible. EC seeks clarification regarding the proposed inspections and monitoring. Section 4.5.1, p.30 states again that the MMER EEM Framework will serve as the basis for the Aquatic Effects Monitoring Plan (AEMP) and that "once this study program is reviewed and approved by Environment Canada, the AEMP will be finalized."	Thank you for the reference. The Environmental Effects Monitoring Study Design Framework as presented in Volume 10, Appendix 10D-14 satisfies the requirements of the MMER Schedule 5. Perhaps the two regulators could develop a harmonization of their requirements and Baffinland will work with them to achieve compliance.
28d	As noted above, the AEMP is a requirement of the Type A water licence for which the EEM requirements can be incorporated. Therefore, the EEM Framework provided in Appendix 10D-14 cannot serve as the AEMP. EC requests the Proponent provide a broader AEMP framework that includes both the Type A water licence and MMER EEM requirements. Table 4-9, p. 30 - As noted in comments related to the MMER Environmental Effects Monitoring Study Design Framework, EC questions the defensibility of the mine Reference sites suggested in the Table.	Points noted. Perhaps the two regulators could develop a harmonization of their requirements and Baffinland will work with them to achieve compliance.
28e	EC requests that the Proponent revisit reference site selection and demonstrate that the reference sites are outside the mine's zone of influence. To corroborate reference site selection, EC recommends the maps identifying reference/exposure site locations provide all other contextual information, including the location of other site infrastructure and overlay Total Suspended Particulate contour maps to demonstrate the sites are clearly outside the influence of mine activities.	Noted.
29	EC requests that the Proponent revise their freshwater and sediment monitoring plans to include more details related to the statistical design of the program, including sample size, early warning indicators, alpha, beta and power analysis.	As specific plans are developed and in accordance with regulatory requirements (e.g. for MMER compliance) detailed programs will be designed and appropriate regulators consulted.
31	EC requests the Proponent provide defensible Reference sites prior to the technical meetings.	While the company is willing to engage in planning and discussion of environmental effects monitoring under the Metal Mining Effluent Regulations, we note that this is a legal requirement applicable to operating mines and not specifically an environmental assessment issue. MMER will not come into effect for another 4-5 years. Having said this, Baffinland is willing to engage in discussions with EC on the selection of reference sites, and plans to investigate options during the summer of 2012. Appropriate reference areas will be identified and selected in accordance with the schedule and requirements of MMER.
32a	Include maps that provide location of exposure and reference areas.	See response to EC-31 above. Appropriate reference areas will be identified and selected in accordance with the schedule and requirements of MMER.
32b	Revisit reference site selection and provide justification that reference sites are outside mine's zone of influence. To corroborate reference site selection, EC recommends the maps identifying reference/exposure site locations provide all other contextual information, including the location of other site infrastructure and overlay TSP contour maps to demonstrate the sites are clearly outside the influence of mine activities.	This point is acknowledged, and Baffinland is in the process of identifying potential reference sites outside of the mine's expected zone of influence, with field work planned for 2012.

32c	Remove the reference to 'aquaculture facilities' from list of anthropogenic influence in Section 6.1.3.	Not applicable.
32d	Revise Section 6.1.5 to include the plume delineation for each discharge point. Specifically, EC requests that the Proponent address the question of whether it's anticipated the effluent will be 1% or greater at a point 250 m downstream of each respective discharge point.	Point noted, however this level of detail is not required for the EIS. Detailed design will be developed and submitted to regulators in accordance with applicable requirements (e.g. for MMER compliance).
32e	Remove the extra French bullet (i.e. (d)ii in the list of tests under Section 6.2.1.2.	Not applicable.
33a	Clarify whether disposal at sea is being considered as a disposal option for project generated dredge spoil.	It is proposed to use the dredge material as backfill and construction material for the port facilities (behind sheetpiling), and in the construction of the Steensby Island causeway. Some of the material maybe sidecast (within the identified areas of the ship turning radius).
33b	Provide the following information if disposal at sea is being contemplated as a disposal option: i) identify and characterize potential disposal sites. ii) characterize the material to be disposed. iii) demonstrate that disposal at sea is the appropriate disposal option.	

Government of Nunavut		
Number	Request	Baffinland Response
26a	At this point in the Environmental Assessment process and given the Pre-construction work that is likely to be undertaken, the Government of Nunavut requests that the Proponent provide a more detailed description of information management issues related to their Environmental Monitoring Plan (EMP) and/or Environmental Effects Monitoring (EEM) programs. Specifically, the GN requests discussion of the following items: a) how the various environmental monitoring activities will be coordinated to avoid duplication of effort and make efficient use of resources, time and expertise (e.g. coordinated sampling regimes, sharing of equipment and data among programs)?	The information requested is not available at this time and is not required for the effects assessment.
26b	b) how will monitoring datasets will be centralized, analyzed, stored, and results communicated to stakeholders?	The information requested is not available at this time and is not required for the effects assessment.
26c	c) who does the Proponent intend to involve in the development of the detailed EMP and the individual EEM programs?	Various stakeholders will be consulted as necessary. To be determined on a case by case basis.
26d	d) what is the proposed role of the GN, including the NRI in the development and implementation of these programs?	The development and implementation of the monitoring program is Baffinland's responsibility. Various regulatory agencies and stakeholders will be consulted as necessary.
26e	The GN requests that the Proponent clearly specify the following: e) whether or not a central, accessible, web based data repository will be established as part of their EMP and/or EEM programs? If not, the Proponent is requested to describe the likely manner in which monitoring information will be managed, analyzed and how results will be shared with stakeholders, including the GN.	This information is not available at this time and is not required for the effects assessment.

32a	<p>Project-specific monitoring should continue beyond closure of the mine. The Proponent states that stakeholder engagement activities will include liaising with communities and stakeholders 3-5 years prior to planned closure and working with local government and community leaders in anticipation of opportunities and impacts regarding closure (App. 10F-1, Table 4.2). However, these activities do not appear to address temporary closures or extend beyond the life of the mine and into the closure and reclamation period. Further, there does not appear to be any commitment to socio-economic monitoring beyond the life of the mine and into the closure and reclamation period.</p> <p>The GN requests that:</p> <p>a) the Proponent indicate whether it will liaise with communities and stakeholders during both temporary or permanent closure of the Project. If so, for how long will this commitment be for?</p>	<p>At this time, Baffinland anticipates that community liaison capacity---supported by Baffinland's Iqaluit office and by local Baffinland Liaison Officers---would continue during temporary closures. Baffinland retains discretion to make decisions related to this issue based on the specific conditions that arise should such a temporary shutdown actually transpire. Liaison activities are expected to cease once the Project is completed at the end of the closure phase. Again, the company maintains discretion to do what make sense at the time.</p>
32b	<p>b) the Proponent indicate whether it will continue socio-economic monitoring during temporary or permanent closure/post-closure. If so, for how long will this commitment be for?</p>	<p>Socio-economic monitoring is expected to continue during temporary closure periods, as a means to support consistency in reporting of key performance indicators. The nature of this monitoring will be dependent on what makes sense at the time based on the adaptive nature of the monitoring program. Once project closure activities cease, project-related employment and business opportunities will also cease. At this point Baffinland's active socio-economic monitoring activities are expected to end.</p>



Natural Resources Canada		
Number	Request	Baffinland Response
1	NRCan requests that the proponent provide the report cited as: Hatch 2011a “Mary River Project – 2011 Potential Quarry and Borrow Investigations”, Report No. H337697-7000-10-124-0001, Nov. 21, 2011.	Please note the document “Mary River Project – 2011 Potential Quarry and Borrow Investigations” has been provided. Please see Appendix 3.
2	Further information is requested on the segregation criteria for PAG and non-PAG. The FEIS notes that additional geochemical studies are underway to better understand the kinetics of potential acid leaching behaviour, and to refine the expected drainage quality and metal leaching behaviour from materials. However, this information should be provided for evaluation of the waste rock management plan	The information provided in Volume 3, App 3B, Attachment 5 - Waste Rock Management Plan contains the information on the waste characteristic that is available at this time. Annex 3, 4 and 5 of the document provides additional information on the on-going waste rock characterization program, the interim waste rock stockpile seepage water quality, and, the interim open pit water model. Geochemical studies to address these concerns are still in progress and when sufficient data become available, they will be evaluated. Testing includes the use of NP depleted humidity cells to simulate conditions when PAG rock materials may begin to generate acidity. To date these tests are still producing neutral pH drainage with low concentrations of metals suggesting that non-carbonate minerals have a role in the buffering of the drainage quality and that non-acidic conditions in PAG rock may persist longer than the current conservative estimates predict. The ongoing and future geochemical testing programs are described in our report attached to the Waste Rock Management Plan (Volume 3, Appendix 3B) entitled “Waste Rock Geological and Geochemical Characterization Program (2012-2014)”.

Qikiqtani Inuit Association		
Number	Request	Baffinland Response
QIA-IR-F-23	It is requested (prior to the FEIS Technical Meeting) that additional crossreferencing detail be provided to locate the document that addresses this PHC commitment.	Please refer to APP 1B-4, 1B-5, 1B-6 and 1B-7 of Volume 1 of the FEIS. These appendices contain all requests of the PHC commitments.

Transport Canada		
Number	Request	Baffinland Response
1a-1	<p>To determine whether Transport Canada’s legislative responsibilities for marine security are being met, through the Marine Transportation Security Regulations (MTSRs). We note, in the provided documents, it states that there is already in place infrastructure materials at the two ports, Milne and Steensby. Also, we noticed on their “Life of Project Schedule” that both ports are to be in construction mode during 2012-2014. A floating dock has already been construction or will be this 2012 season.</p>	<p>Floating docks will be employed in 2013 since the 2012 program has now been cancelled. Baffinland wishes to establish meetings with relevant regulatory agencies in order to fully address the concerns expressed by Transport Canada. A kick off meeting is scheduled for the last week in April, 2012, in Winnipeg.</p>
1a-2	<p>We need to inspect these areas as they are part of the security assessment that needs to be conducted/completed and provided to us, prior to start up, as listed in the MTSR’s. This inspection will insure that any already completed infrastructure does not impact the security plans at the facility(ies), and therefore, will not require any changes due to security reasons later on. Steensby port, and maybe Milne port, requires a Statement of Compliance, a Marine Facility certificate issued by Transport Canada, prior to conducting business with a Foreign Flagged Vessel or a Canadian Flagged Vessel, when transporting iron ore to another country. The SOLAS vessels require an international Ship Security Certificate from Marine Security (Minister of Transport) prior to conducting business. Marine Security will need to complete an inspection of the vessels prior to their service. The procedure for Baffinland Iron Mines Corp., to obtain the Statement of Compliance a Marine Facility certificate is that Transport Canada must complete a security assessment on the facility/site(s) and then evaluate the security plan for compliance to the MTSR for completeness, etc. This can take approximately 1-2 weeks, and if Transport Canada is not engaged early, prior to construction, this will increase the likelihood of some impact to business such as delay.</p>	

1b	<p>Transport Canada's concern associated with the issue, specifically how and why it is required or important; Any infrastructure in place at both facilities will need to be reviewed and be assessed against the requirements listed in the Marine Transportation Security Regulations (MTSRs). Vessels require an approved Vessel Security Assessment; Vessel Security Plan and a Ship Security Certificate. Transport Canada Marine Security, PNR has provided a Security Assessment Package to Baffinland for their Company Security Officer. Transport Canada has also provided our 4 PKG DVD "Protecting Canada's Marine Transportation System" to the company.</p> <p>The company must comply with the MTSR's for Part 2, Vessels and Part 3, Marine Facilities for ANY TEST RUNS to other countries, as this is part of the security assessment process. If test run shipments have already been conducted from Canada to another country, the company may be in violation of the MTSR's.</p> <p>Canada's reputation/credibility will be impacted as we are signatories to the IMO. If we allow vessels to leave uncertified facilities in Canada and arrive at another certified country's facilities, like Rotterdam, they have the authority to turn the ship away.</p> <p>Transport Canada is required to be nationally consistent in the application of legislation applicable to its citizens.</p>	<p>Baffinland wishes to establish meetings with relevant regulatory agencies in order to fully address the concerns expressed by Transport Canada. A kick off meeting is schedule for the last week in April, 2012, in Winnipeg.</p>
1c	<p>Any issues which Transport Canada feels remain unaddressed or unresolved or not clear.</p> <p>David Hohstein letter dated March 2, 2012 regarding the "Yellow" highlighted items still not resolved by Baffinland Iron Mines Corp – The due date was March 9, 2012. We are looking forward to the resolution of item 295, as it is still not addressed.</p>	
AANDC	<p>David Hohnstein letter dated March 2, 2012 regarding the "Yellow" highlighted items still not resolved by Baffinland Iron Mines Corp- The due date was March 9, 2012. We are looking forward to resolution of Item 295, as it is still not addressed.</p>	<p>This item is not yet resolved. However, in discussion with Transport Canada, Baffinland and Transport Canada have agreed to establish a work group to address port security and gather information in respect to shipping and security monitoring and to identify relevant information to be shared with the RCMP and/or GN Department of Justice. The first meeting of this work group is scheduled for April 27, in Winnipeg, at Transport Canada's offices.</p>