Aboriginal Affairs and Northern Development Canada
Affaires autochtones et Développement du Nord Canada

Water Resources
Nunavut Regional Office
P.O. Box 100
Iqaluit, NU, X0A 0H0

Your file - Votre référence
2AM-MRY1325

June 26, 2015

Our file - Notre référence
CIDM# 923726

Robin Ikkutisluk
Licensing Administrator Assistant
Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU, X0A 1J0

Re: 2AM-MRY1325 – Mary River Project – Baffinland Iron Mines Corporation – Aquatic Effects Monitoring Plan and Interim Closure and Reclamation Plan

Dear Robin Ikkutisluk:

Thank you for your May 6 2015 invitation for written representations on the above referenced Aquatic Effects Monitoring Plan and Interim Closure and Reclamation Plan.

Aboriginal Affairs and Northern Development Canada (AANDC) has conducted a technical review of the Plans submitted by Baffinland Iron Mines Corporation and results of our review are presented in the attached memorandum for the Nunavut Water Board's consideration.

Comments have been provided pursuant to AANDC's mandated responsibilities for the enforcement of the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* and the *Department of Indian Affairs and Northern Development Act*.

AANDC appreciates the opportunity to participate in this review. If there are any questions or concerns, please contact me at (867) 975-3876 or by e-mail at Sarah.Forte@aandc-aadnc.gc.ca.

Sincerely,

Sarah Forté
Water Management Coordinator

cc. Andrew Keim, Actin Manager of Water Resources, AANDC
Scott Burgess, Manager, Mary River Project Team, AANDC
Erik Allain, Manager of Field Operations, AANDC

Canada

Technical Review Memorandum

Date: June 26, 2015

To: Robin Ikkutisluk – Licence Administrator Assistant, Nunavut Water Board

From: Sarah Forté – Water Management Coordinator, AANDC

Subject: **Review of Baffinland Iron Mine Corporation's Aquatic Effects Monitoring Plan and Interim Closure and Reclamation Plan for the Type A Water Licence 2AM-MRY1325**

1.0 Background

Baffinland Iron Mines Corporation (Baffinland) submitted to the Nunavut Water Board (the Board or NWB) an Annual Report in March 2015. As required under Part B, Item 18 of the Type A water licence 2AM-MRY1325 (the licence), revisions to the Plans referred to in the licence as required by changes in operation and /or technology were included in the form of an Addendum to the Annual Report.

The Aquatic Effects Monitoring Plan (AEMP) and the Interim Closure and Reclamation Plan (ICRP) were submitted by Baffinland as addenda to the Annual Report. The NWB requested interested parties to review and make representations by June 26, 2014.

The AEMP is a monitoring program designed to:

- Detect short-term and long-term effects of the Project's activities on the aquatic environment resulting from the Project
- Evaluate the accuracy of impact predictions
- Assess the effectiveness of planned mitigation measures
- Identify additional mitigation measures to avert or reduce environmental effects

The ICRP outlines the closure goal, principles, objectives, criteria and activities associated with the final closure and reclamation of the Project.

2.0 Results of Review

2.1 Aquatic Effects Monitoring Plan

The Aquatic Effects Monitoring Plan (BAF-PH1-830-P16-0039 Rev 0) submitted by Baffinland is the same as was submitted in June 2014. In October 2014, the Board requested comments from interested parties and in November 2014 both Aboriginal Affairs and Northern Development Canada (AANDC) and Environment Canada

submitted comments. These comments have not been addressed as the Plan has not been modified.

In a letter to the Water Board dated February 6, 2015, Baffinland committed to update and revise several plans including the AEMP within 60 days of issuance of an amended Type A licence.

AANDC believes that the comments submitted in November 2014 are still relevant and our previous technical review memorandum is included as Appendix A. Since this AEMP was submitted before commencing operations of the Early Revenue Phase following the issuance of Water Licence 8BC-MRY1416, it is independent of the Type A licence amendment process.

AANDC therefore recommends the Board withhold its approval of the plan until the comments submitted have been addressed. It is understood that further modifications to the plan would be necessary following an amendment of the Type A licence and AANDC requests an opportunity to review the modified plan when submitted.

Some additional comments are presented below.

2.1.1 Data evaluation methods for biota populations

Reference:

- Aquatic Effects Monitoring Plan (BAF-PH1-830-P16-0039 Rev 0), June 27, 2014, Section 5.4
- Appendix A – Draft Environmental Effects Monitoring Program (EEM) Cycle One Study Design, June 2014, Sections 3.4.3, 3.5.2

Comment:

In Table 5.5 the statistical tests proposed for comparing effect indicators are ANOVA and ANCOVA. These tests assume a normally distributed sample population. In the arctic char measured during the baseline study, fork length and round weight were not normally distributed as illustrated in Figure E.1 and described in Table E.2 of the Draft EEM. The inappropriateness of this test is mentioned in Section 3.5.2 of the Draft EEM: "*An ANOVA model will be used ….. provided the populations are normally distributed, of equal variance and independent of one another.*"

No alternate models are proposed for use when the populations are not normally distributed and the ANOVA model has already been applied in such cases, for example in table E.2.

Recommendation:

AANDC recommends that: a) the AEMP and EEM only use ANOVA tests to compare fish or biota populations when they are normally distributed and b) the documents propose alternate tests for non-normal distributions.

2.1.2 Fish usability

Reference:

Appendix A – Draft Environmental Effects Monitoring Program (EEM) Cycle One Study Design, June 2014, Section 3.4.5

Comment:

A concentration is referred to in order to justify not proposing a fish usability study. The parameter with a concentration below 0.01 µg/L is not specified.

Recommendation:

AANDC requests that the AEMP specify the parameter used to justify not proposing a fish usability study.

2.2 Interim Closure and Reclamation Plan

The Interim Closure and Reclamation Plan (BAF-PH1-830-P16-0012 Rev 3) was reviewed but the plans and documents it refers to were not. Comments are presented below and AANDC expects to have further comments during the Annual Security Review process.

Three referencing errors were noticed in the document, on pages 68, 96 and 125.

2.2.1 Long-term mine closure activity timeline

Reference:

Interim Closure and Reclamation Plan (BAF-PH1-830-P16-0012 Rev 3), March 19, 2015, Section 8

Comment:

Baffinland details activities associated with long-term temporary mine closure, such as the removal from site of hazardous waste and explosives. These activities would take place if the Project ceases operation for a period greater than a year, but no timeline has been proposed. This contrasts with the final mine closure and reclamation activities for which a three year schedule is proposed in table 6-1.

Recommendation:

AANDC recommends that the ICRP set timelines for long-term mine closure activities.

2.2.2 Accelerated open pit filling

Reference:

Interim Closure and Reclamation Plan (BAF-PH1-830-P16-0012 Rev 3), March 19, 2015, Sections 9.2 and 11.3

Comment:

Baffinland states they anticipate the open pit will take an estimated 85 to 150 years to passively fill with water from natural sources. They also state they expect closure to take three years with post-closure monitoring to be required over a five year period.

One of the pit closure objectives is that "*Surface runoff and seepage water quality is safe for humans and wildlife*." It will not be possible to determine the pit lake water quality and its influence on surface runoff and seepage water until the pit has filled and equilibrated. Without accelerated pit filling, closure for the pit would take much longer than the three years planned.

Recommendation:
AANDC recommends that the ICRP include either or both:

- accelerated open pit filling as a planned activity rather than a potential one;
- a modified mine closure and post-closure monitoring timeline to reflect the lengthy period before pit closure.

2.2.3 Mary River option for accelerated pit filling

Reference:

- Interim Closure and Reclamation Plan (BAF-PH1-830-P16-0012 Rev 3), March 19, 2015, Section 9.2.1
- Drawing H337697-4210-07-012-0001 Preliminary Mine Closure and Reclamation Plan – Mine Site Construction Phase
- Drawing H337697-4210-07-012-0002 Preliminary Mine Closure and Reclamation Plan – Mine Site Final Closure Phase
- Aquatic Effects Monitoring Plan (BAF-PH1-830-P16-0039 Rev 0), June 27, 2014, Figure 3.2
- Final Environmental Impact Statement - Appendix 7A - Hydrology Baseline Report, January 4, 2012, Table 6.1

Comment:
The preferred option pit filling alternative is the Mary River, at MR-12, the east pond discharge location. This location is not identified on either Mine Site drawing and though it is understood that the discharge location is not yet precisely determined since neither the waste rock stockpile nor its east pond have yet been built. Figure 3.2 from the Aquatic Effects Monitoring Plan has a SNP seasonal discharge station labelled MS-09 described as "waste rock stockpile east pond stormwater".

It is not clear where MR-12 is located. If it is located near MS-09 or next to the east pond, it is on a tributary to the Mary River rather than on the main branch. The hydrology monitoring station H7 was on this tributary and the four years of recorded data have much smaller flows than the 78 million cubic meters annual total flow volume for MR-12.

The annual total flow volume measured at nearby hydrology monitoring station H6, which is on the Mary River more closely resembles the flow presented in the ICRP. Yet the predicted 10-year dry flow at this station is much lower than for MR-12.

The Department of Fisheries and Oceans' (DFO) "Framework for Assessing the Ecological Flow Requirements to Support Fisheries" states that:

Cumulative flow alterations <10% in amplitude of the actual (instantaneous) flow in the river relative to a "natural flow regime" have a low probability of detectable impacts to ecosystems that support commercial, recreational or Aboriginal fisheries. Such projects can be assessed with "desktop" methodologies.

Periodic pumping from the Mary River at a rate of 8700 m^3 of water per hour over 4 months is proposed, which is approximately to the total yearly volume withdrawal proposed (25 000 000 m^3) divided by the number of hours in 4 months. It does not seem to take into account the variability of flows between months and the need for instantaneous flow alterations in the river to be less than 10% in amplitude.

Recommendation:
AANDC recommends that: a) the position of potential water withdrawal location MR-12 be located on a map or figure and b) the hydrological data used to determine permissible annual water take be identified and presented.

AANDC recommends that Baffinland begin collecting data at the location where they plan to withdraw water since the Framework for Assessing the Ecological Flow Requirements recommends a minimum of 20 years of river flow data to establish the "natural flow regime". This data will be critical in accurately evaluating the 10-year dry flow.

AANDC also recommends that the ICRP incorporate a pit filling scenario that is respectful of DFO guidelines.

2.2.4 Aesthetic closure objective

Reference:

Interim Closure and Reclamation Plan (BAF-PH1-830-P16-0012 Rev 3), March 19, 2015, Table 6-1 and section 9

Comment:
In Table 6-1 a closure objective included for site wide for Milne Port, Tote Road, Mine Site, Railway, and Steensby Port is the following:

Landscape features (shape and vegetation) match aesthetics of the surrounding natural area.

All other closure objectives in Table 6-1 are echoed in section 9 in the appropriate sub-sections, however the aesthetic objective is not referred to.

Recommendation:
AANDC recommends that the ICRP clarify which of the final mine closure and reclamation measures the aesthetic objective will be applied to.

2.2.5 Waste rock stockpile cover thickness

Reference:

Interim Closure and Reclamation Plan (BAF-PH1-830-P16-0012 Rev 3), March 19, 2015, Section 9.11

Comment:

The minimum thickness of the cover for the waste rock stockpile is not defined. The first paragraph of section 9.1 specifies the maximum thickness, stating:

> *Mine planning will ensure that at closure the exterior of the dump consists of a layer of non-PAG (potential acid generating) material up to 50 m thick.*

The following paragraph states that the "*surficial "active" zone, … , will not reach the 50 m thickness of non-PAG material in the long-term …*" as if the cover thickness is determined at 50 m.

Recommendation:

AANDC recommends that the ICRP define the minimum waste rock stockpile cover thickness.

2.2.6 Timing of post-closure Surveillance Network Program (SNP) Monitoring

Reference:

Interim Closure and Reclamation Plan (BAF-PH1-830-P16-0012 Rev 3), March 19, 2015, Section 11.3.1.1

Comment:

Baffinland expects sampling of revised and approved SNP locations to occur once a year, during a low flow period at the end of summer and to focus on surface water quality monitoring.

Sampling during low flow is a good time for recording high concentrations for certain criteria. However other criteria, such as total suspended solids, would be higher during the high flow conditions of freshet.

Appropriate sampling periods could be discussed when revising the Surveillance Network Program.

2.2.7 Ultimate Project closure and reclamation cost

Reference:

- Interim Closure and Reclamation Plan (BAF-PH1-830-P16-0012 Rev 3), March 19, 2015, Sections 13.1.1 and 13.1.2.1
- Preliminary Mine Closure and Reclamation Plan (H33769-0000-07-126-0014 Rev D), February 2012, Table 12-1
- Interim Abandonment and Reclamation Plan (H349000-1000-07-126-0012 Rev 0), June 7, 2013, Table 12-1

- Interim Mine Closure and Reclamation Plan (BAF-PH1-830-P16-0012 Rev 2), June 27, 2014, Table 12-1
- Final Environmental Impact Statement (FEIS) Closure and Reclamation – Financial Security Estimate Addendum (H349001-0000-07-220-0001 Rev 0), March 25, 2015, Table 4-1

Comment:
This comment is the same as was made in AANDC's Technical Review Memorandum submitted September 15, 2014.

The financial cost of final closure and reclamation is identical to that provided in the Preliminary Mine Closure and Reclamation Plan (February 2012), Interim Abandonment and Reclamation Plan (June 2013) and Interim Mine Closure and Reclamation Plan (June 2014). This means that the estimate provided for final closure cost ($518 711 208) does not include changes related to the Early Revenue Phase.

Baffinland has developed a financial security estimate addendum to incorporate the changes but have not modified the ICRP to present the amended final closure cost of $526 526 287.

Recommendation:
AANDC recommends that the ICRP present a final closure cost which includes all components of the Mary River Project including the additional infrastructure necessary for the Early Revenue Phase.

Appendix A

Aboriginal Affairs and Northern Development Canada's November 2014 Technical Memorandum regarding the Aquatic Effects Monitoring Plan

Technical Review Memorandum

Date: November 21, 2014

To: Phyllis Beaulieu – Manager of Licensing, Nunavut Water Board

From: Jean Allen – Water Management Specialist, AANDC

Subject: Review of Baffinland Iron Mine Corporation's Aquatic Effects Monitoring Plan for the Type A Water Licence 2AM-MRY1325

2.0 Background

Baffinland Iron Mines Corporation (Baffinland) submitted to the Nunavut Water Board (the Board or NWB), a Draft Aquatic Effects Monitoring Program (AEMP) Framework for the Construction Phase of the Mary River Project in February 2013 and in November 2013, submitted an updated AEMP Framework based on consultations with interested parties.

Baffinland submitted an Aquatic Affects Monitoring Plan (AEMP) as required under Part I, Item 2 of the Type A water licence 2AM-MRY1325 (Type A licence) prior to commencing the Operations Phase. The NWB requested interested parties to review and make representations by November 14, 2014.

The AEMP is a monitoring program designed to:

- Detect short-term and long-term effects of the Project's activities on the aquatic environment resulting from the Project
- Evaluate the accuracy of impact predictions
- Assess the effectiveness of planned mitigation measures
- Identify additional mitigation measures to avert or reduce environmental effects

2.3 Results of Review

2.4 Monitoring of Milne Port Ore Stockpile Runoff Ponds (also included in AANDC Technical Review Submission on November 14, 2014)

Reference:
Attachment 1, Drawing H349000-2000-00-015-0017 Milne Port Early Revenue Phase Site Layout;
Attachment 1, Drawing H349000-2345-10-035-0001 Milne Port Ore Stockpile Sedimentation Ponds;
Attachment 1, Drawing H349000-2100-10-015-0001 Milne Port – Site Preparation Site Layout Drainage Plan;

Fresh Water Supply, Sewage, and Wastewater Management Plan BAF-PH1-830-P16-0010 (January 31, 2014), Section 5.3 (Treated Wastewater Generation and Discharge/Outfall Locations), Table 5.7 (Effluent Discharge Quality Limits for Ore Stockpiles and Pits), page 18;
Aquatic Effects Monitoring Plan (AEMP) BAF-PH1-830-P16-0039 (June 27, 2014), Section 3.4.1 (Surveillance Network Program Overview), Table 3.2 (Established SNP Monitoring Stations Associated with ERP) and Table 3.3 (Future SNP Stations Associated with ERP), pages 26 and 30.

Issue:
In Baffinland's response to AANDC's IR No. 3.2 additional information on the operation of the Milne Port ore stockpile runoff ponds was provided. Baffinland clarified that "*The AEMP states that that Runoff from the stockpile area at Milne Port will be collected in a pond that will discharge to the marine waters of Milne Inlet. Environment Canada has advised Baffinland that the mine effluent discharge to Milne Inlet will not be subject to the MMER, though the Fisheries Act still apply, including Section 36(3) regarding the prohibition of discharges of a deleterious substance in waters frequented by fish. Effluent discharge quality limits for ore stockpiles and pits will be in compliance with the Freshwater Supply, Sewage and Wastewater Management Plan (BAF-PH1-830-P16-0010) Table 5.7.*" However, as AANDC identified in IR No. 3.2, no Surveillance Network Program (SNP) monitoring station to characterize ore stockpile runoff quality has been proposed at Milne Port (as is the case for ore stockpiles at the Mine Site and Steensby Port) in either of the recently updated Fresh Water Supply, Sewage, and Wastewater Management Plan or the Aquatic Effects Monitoring Plan.

As identified in IR No. 3.2, there is no ore stockpile runoff monitoring station listed in Tables 3.2 and 3.3 of the AEMP (in Section 3.4.1 Surveillance Network Program Overview) which summarize the ERP monitoring locations. If monitoring of the Milne Port ore stockpile runoff is intended to be carried out at the new "MP-01 Future" water quality monitoring station identified on the site plan figure (Drawing H349000-2100-10-015-0001, Application Attachment 1, Part 5), Baffinland needs to clarify how compliance with the ore stockpile runoff discharge limits will be established independent of compliance with Wastewater Treatment Plant (WWTP) discharge limits at this same location.

Rationale:
Baffinland has identified the discharge limits which will apply to the Milne Port ore stockpile runoff. It is not clear at what monitoring location compliance with these limits will be established. If monitoring of the ore stockpile runoff is proposed in the new outfall ditch (new MP-01) prior to its discharge to the marine environment, Baffinland needs to address how one monitoring location will be used to measure compliance with two different sets of discharge limits, one for ore stockpile runoff, the other for WWTP releases.

Recommendation:
AANDC requests that the amended Type A Water Licence clearly identify where compliance with the proposed discharge limits for the Milne Port ore stockpile runoff will be established (i.e., where a monitoring station will be established for the Surveillance Network Program to isolate treated ore stockpile runoff quality). This new monitoring station should also be included in updated versions of the Fresh Water Supply, Sewage, and Wastewater Management Plan and the Aquatic Effects Monitoring Plan.

2.5 Distinct monitoring stations for pit lake and waste rock stockpiles

Reference:
Aquatic Effects Monitoring Plan (AEMP) BAF-PH1-830-P16-0039 (June 27, 2014), Figure 3.2;
Nunavut Water Board Water Licence No: 2AM-MRY1325, Schedule I, Table 14;
AANDC Technical Review Comment No. 18, Technical Review - Baffinland Mary River Iron Ore Project Type A Water Licence Application (June 22, 2012);
Baffinland Response to Technical Review Comments on the Type A Water Licence Application (October 12, 2012);
AANDC Issue 9.3, Final Submission – Regarding Baffinland Iron Mines Corporation Type A Water Licence Application for the Mary River Project (March 21, 2013);
Baffinland Response to Final Intervention Comments (April 5, 2013).

Issue:
The AEMP proposes monitoring of the East Pond which will receive both waste rock pile runoff and effluent from pit dewatering. AANDC requested that a separate monitoring station for the pit be included in the plan to facilitate a better understanding of the acid generating potential of the future pit walls. Baffinland committed that a separate monitoring station would be applicable to future revisions of the Closure and Reclamation Plan as the open pit begins to develop (>10 year timeframe) and that in the meanwhile seepage water in the active mining area would be regularly monitored and the information used to inform acid generating and metal leaching estimates. AANDC requested that this commitment be captured as a water licence requirement and Baffinland responded that an exact location for the monitoring of pit water quality cannot be identified until there is a mine pit and mine pit water discharge. To date, there appears to be no distinct monitoring station for pit water quality in the existing water licence or in the new AEMP.

Rationale:
Establishing separate pit water and waste rock pile runoff monitoring stations would provide useful information to develop acid generating and metal leaching estimates required for updated pit lake water quality modeling. While it would not be possible to sample pit waters until the open pit forms some 10 years into the future, the commitment to establish this future monitoring station should be captured in the AEMP.

Recommendation:
AANDC recommends that the commitment to maintain separate water quality monitoring stations for the pit and the waste rock stockpile be captured in the AEMP.

2.6 Hydrological Monitoring

Reference:
Aquatic Effects Monitoring Program Framework (December 2013), Section 4.2, page 15
Nunavut Land Claims Agreement, Article 20, Part 2;
Final Environmental Impact Statement (February 2012) Volume 7 Section 1.0 –Regional Fresh Water Setting, page 11;
Addendum to the Final Environmental Impact Statement Early Revenue Phase (June 2013) Volumes Two through Seven, Appendix 7A
AANDC Completeness Review Regarding the Amendment to the Type A water licence 2AM-MRY1325 (September 19, 2014), Comment No. 3.5;
Baffinland Responses to Agency Comments on the Amendment to the Type 'A' Water Licence 2AM-MRY1325 (October 3, 2014);
Aquatic Effects Monitoring Plan (AEMP) BAF-PH1-830-P16-0039 (June 27, 2014), Section 3.3

Issue:
Under Section 4.2 of the Aquatic Effects Monitoring Program Framework Baffinland committed to maintaining a hydrometric network as the project moves forward. The four year-round hydrometric stations operated by Water Survey Canada were discontinued in 2011, leaving a network of only 6 seasonal stream gauges to be operated in 2014 and onward. Baffinland indicated in their October 3, 2014 response to our completeness review that 9 additional seasonal hydrometric stations were installed at the Mine Site and at Milne Port to measure discharge from project areas. It is not clear how the hydrometric network has been expanded to include the Milne Port area and details of the hydrometric network, including the additional stations installed in 2014 remain outstanding.

In March 2014, AANDC recommended that Baffinland submit their hydrometric data to Water Survey Canada (WSC) as "contributed data" so that it can be validated and published if it meets appropriate standards. AANDC requested this information again in the completeness review for the amendment application but Baffinland responded that this request was outside of the scope of the Type A water licence amendment application. It is important that hydrometric data meets national standards and that it is made available to the public to ensure that there is no impact to water quality, quantity, and flow. It is also incumbent on individual mining projects, including Baffinland, to make a contribution to regional monitoring in development of a long-term hydrometric record that will support future decision-making.

Under Section 1.0 of the FEIS (2012), Baffinland stated that the hydrological monitoring program will be continued to improve the long-term hydrological record. This

information is important for the engineering design of infrastructure that conveys or retains surface waters such as diversion channels, stockpile runoff sediment ponds, spillways, river bridge crossings, culverts and ditches.

The Addendum to the Final Environmental Impact Statement (2013) does not provide further details on the long-term monitoring program.

Rationale:
There is insufficient information provided on the hydrometric network to assess its value in supporting long-term regional monitoring or in addressing potential project-specific impacts to fresh water quality, quantity, or flow.

Recommendation:
AANDC requests Baffinland to a) provide additional information on the hydrometric network located within the Mary River Project area; b) provide details on the additional hydrometric stations installed in 2014; c) commit that hydrometric data will meet national standards; d) commit that hydrometric data will be shared with AANDC and the NWB.

AANDC further requests that Baffinland e) clarify whether snow surveys are conducted f) provide results of annual snow surveys and annual water balances in annual reports; and g) reference annual water balance calculations based on monitoring data when completing the design of civil works.

2.7 The Early Revenue Phase (ERP) Monitoring Program

Reference:
Aquatic Effects Monitoring Plan (AEMP) BAF-PH1-830-P16-0039 (June 27, 2014), Section 3.4;
Nunavut Water Board Water Licence No. 2AM-MRY1325;
Nunavut Water Board Water Licence No. 8BC-MRY1416

Issue:
The AEMP was submitted as a requirement under Part I, Item 2 which requires the Licensee to submit an AEMP at least 60 days prior to commencing the operation phase. Baffinland's Type B water licence 8BC-MRY1416 (Type B licence) requires the Licensee to submit a Monitoring Plan by October 5, 2014 (Part J, Item 1) and maintain monitoring stations at the Milne Port ore dock, ore stockpile areas, ship-loading facilities, sedimentation ponds, and ore reclaiming and conveying facilities, proposed polishing waste stabilization ponds and Matrix Camp expansion (Part J, Item 2). Baffinland requested an extension until March 2015 to submit the required Monitoring Plan and while the AEMP does include some future monitoring stations for ERP (Table 3.3), it does not appear to include all monitoring stations required under the Type B licence (Part J, Item 2 of 8BC-MRY1416).

Rationale:
As it is Baffinland's intent to consolidate all requirements for the construction and operation of the Mary River Project under the Type A licence, the monitoring program required under the Type B licence, authorizing ERP construction, should also be considered in the AEMP.

Recommendation:
AANDC requests clarification whether the AEMP will include all monitoring requirements for the Type A and Type B licence in order to consolidate all monitoring requirements for the Mary River Project (mining as well as ERP construction).

2.8 The Rail Phase of the Mary River Project

Reference:
Aquatic Effects Monitoring Plan (AEMP) BAF-PH1-830-P16-0039 (June 27, 2014), Sections 4.2.2, 4.2.4, 4.2.5, 4.2.6, 4.3.3, and 7

Issue:
Baffinland has contemplated a 5-year operating plan for the ERP, after which time the full-scale railway project would also be brought on-line. A number of sections in the AEMP indicate that annual sampling will be conducted for the first 3 years of operation during the ERP. While it does not specify that annual sampling will also be conducted during the first 3 years of the full-scale operation of the approved project (rail phase + ERP), it does indicate that sampling frequency will be evaluated annually to determine if modifications are warranted. Baffinland states that monitoring for the approved project will start one year prior to the start of larger scale mining.

Rationale:
It is understood that the AEMP is a living document and will be periodically updated as required (potentially every 3 years) and filed with the Annual Report, but there is no specific commitment to update the AEMP prior to commencing full-scale operations (mining at a rate of 21.5 Mt/a).

Recommendation:
AANDC recommends that the AEMP is updated 60 days prior to commencing larger scale operation of the approved project.