

April 29, 2015

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Re: Baffinland Responses to Agency Comments on the Amendment to the Type 'A' Water Licence 2AM-MRY1325

Dear Phyllis,

Baffinland Iron Mines Corporation (Baffinland) received comments submitted to the Nunavut Water Board (NWB) on the Amendment to the Type 'A' Water Licence from the following parties:

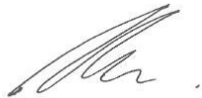
1. Environment Canada (April 17, 2015);
2. Qikiqtani Inuit Association (April 17, 2015);
3. Aboriginal Affairs and Northern Development Canada (April 22, 2015); and
4. Mitimataalik HTO Committee (April 23, 2015)

Baffinland would like to provide the following responses and information to the NWB presented in Attachment 1.

- Attachment 1: Baffinland responses to agency comments on the Amendment to Type 'A' Water Licence 2AM-MRY1325

Please do not hesitate to contact me if there are any problems or concerns.

Respectfully,

A handwritten signature in black ink, appearing to read "O. Curran".

Oliver Curran
Director, Sustainable Development

C.C:
Stephen Bathory (QIA)
Mark Dahl (EC)

Jean Allen (AANDC)
David Hohnstein (NWB)
Sean Joseph (NWB)
Robin Ikkutisluk (NWB)

Attachment 1: Baffinland Responses to agency comments on the Amendment to Type A Water Licence 2AM-MRY1325

Baffinland Responses to Agency Comments on the Amendment to the Type A Water Licence 2AM-MRY1325	
Comment	Response
<i>Environment Canada</i>	
<p>Environment Canada is please to note that Bafiinland has committed to monitoring discharges from the Milne Port ore Stockpiles. Environment Canada would like to take this opportunity to remind the proponent that they are obligated to demonstrate that the effluent discharged to Milne Inlet meets the requirements of Section 36 of the Fisheries Act prior to release.</p> <p>Further Environment Canada acknowledges that Baffinland has also committed to marine monitoring in Milne Inlet to ensure that project related impacts can be detected and mitigated. Environment Canada looks forward to discussions regarding the implementation of marine monitoring in the Marine Environment Working Group.</p>	<p>Noted. Baffinland appreciates the input from EC.</p>

Baffinland Responses to Agency Comments on the Amendment to the Type A Water Licence 2AM-MRY1325				
Number	Background	Issue	Request	BIM Response
<i>Qikiqtani Inuit Association – Technical Issues</i>				
2.1 Water Compensation Agreement	A Water Compensation Agreement is currently held between BIMC and QIA. There is a need for the NWB to confirm if the Type A amendment application impacts the current Water Compensation Agreement.	BIMC’s response to the Technical Meeting ₃ (commitment #4) stated that “Baffinland and QIA have a signed Water Compensation Agreement and it applies to this amendment”. QIA hereby confirms the validly of BIMC’s statement.	The NWB accept that a Water Compensation Agreement exists between the QIA and BIMC.	Baffinland agrees.

<p>2.3 Financial Security</p>	<p>BIMC provided an updated full mine financial security estimate after the Technical Meeting³ (Commitment #11).</p> <p>BIMC provided suggested wording for Part C, Item 1 of the water licence, which results in a provision to not complete an Annual Security Review in a given year.</p>	<p>As expressed to the NWB during the most recent Annual Security Review (ASR), the QIA and BIMC have worked extensively together throughout 2014 with regards to the methodology applied to determine the financial security associated with Inuit Owned Lands. The methodology applied to determine the updated financial security estimate (response to Commitment #11) is not consistent with the method applied in the 2014 ASR and does not conform to the QIA Abandonment and Reclamation Policies. The QIA does not accept the updated full mine financial security estimate for application to Inuit Owned Lands.</p> <p>The QIA will continue to participate in the ASR process to provide evidence to the NWB regarding the amount of security on an annual basis. The QIA will fulfill its obligations under the Commercial Production Lease (Q13C301) to determine financial security associated with Inuit Owned Lands. With regards to the suggested wording for Part C, Item 1 of the water licence. The QIA supports BIMC position for the licence to be flexible to not require an Annual Security Review on an annual basis. QIA recommends that the NWB decision to complete an Annual Security Review be informed by the interests of the Proponent and the interested stakeholders.</p>	<ol style="list-style-type: none"> 1. The Annual Security Review process continues as the basis for determining the financial security for the project. 2. Part C, Item 1 of the water licence be adjusted to include the flexibility for the Annual Security Review to not be required on an annual basis and that this determination is informed by the interests of the Proponent and interested stakeholders. 	<p>Baffinland agrees as noted in the Technical Meetings that clauses should be amended to allow for review to be done on an as needed basis and not annually.</p>
<p>2.4 Interim Closure and Reclamation Plan</p>	<p>BIMC amendment application contained version 2 of their Interim Closure and Reclamation Plan (ICRP). March 31, 2015, BIMC submitted an update to their ICRP (version 3) to the NWB.</p> <p>The QIA will fulfill its obligations under the Commercial Production Lease (Q13C301) to approve the ICRP for application on Inuit Owned Lands. The QIA will participate in any NWB lead review process for the ICRP and provide an update to the NWB on QIA's approval determination through that process.</p>	<p>At the request of the NWB, on September 15, 2014 the QIA provided technical review comments on version 2 of the ICRP⁷. BIMC provided a response to reviewer comments on October 3, 2014⁸. No information exists on the public registry (as of April 8, 2015) regarding the status of approval of version 2 of the ICRP. Based on discussions with NWB staff (on April 9, 2015), version 2 of the ICRP has not received NWB approval.</p> <p>Another version of the ICRP (submitted in March 31, 2015) exists and has been updated relative to the version provided with the water licence amendment application (submitted July 2014).</p> <p>The amendment application should consider the newest version of the ICRP in any water licence determination. The newest version of the ICRP has not been subject to stakeholder review under the current water licence.</p>	<p>The ICRP (version 3), as submitted on March 31, 2015, be subject to a review and approval process within 60 days of issuance of the water licence.</p>	<p>Baffinland agrees.</p>
<p>2.5 Aquatic Effects Monitoring Plan</p>	<p>BIMC submitted an Aquatic Effects Monitoring Plan (AEMP) associated with their current water licence on July 27, 2014⁹. At the request of the NWB for their consideration on approval of the document, the QIA provided a review of this AEMP on November 14, 2014¹⁰. QIA's review of the July 27, 2014 AEMP did not address the ERP activities, since these activities are the subject of the current water licence amendment process.</p> <p>After the Technical Meeting³</p>	<p>Preliminary technical review of the July 27, 2014 AEMP regarding the ERP activities was provided to the NWB within the QIA's Information Request. As requested in the QIA's Information Request, as well as, again during the technical meeting, the QIA sought clarification from the NWB how the July 27, 2014 AEMP submittal relates to this water licence amendment process. To date, no response from the NWB has been provided.</p> <p>Further, the status of review and approval of the July 27, 2014 AEMP is unknown. QIA's review comments were provided to the NWB on November 14, 2014 and no information exists on the public registry (as of April 8, 2015) regarding the status of approval and how reviewer comments were considered, or addressed. Based on discussions with NWB staff (on April 9, 2015), the July, 2014 AEMP has not received NWB approval. Based on this information, QIA does not support BIMC's suggested modification to Part I, Item 1 of the Water Licence, which states that the July,</p>	<ol style="list-style-type: none"> 1. The NWB require the AEMP to be updated to account stakeholder reviewer comments provided to the NWB in November, 2014, as well as, reviewer comments provided throughout the water licence amendment process. The updated AEMP be submitted for stakeholder review and NWB approval within 60 days of licence issuance. The updated AEMP shall be accompanied with a summary of how the November, 2014 stakeholder review comments were addressed. 2. The AEMP address how the waste discharged from the Milne Port Ore Stockpile Facility, which will enter Milne Inlet, will be monitored to assess potential effects. 	<p>The ERP facilities at Milne Port will have no effect on the aquatic freshwater environment since discharge from the facilities is to the marine environment. Baffinland intends to conduct testing of the ore stockpile runoff (effluent) as part of its own due diligence to ensure compliance with the Fisheries Act. To specifically address monitoring in the marine environment, inclusive of runoff from ore stockpiles at Milne Port, Baffinland consulted DFO and EC. The Marine Ecological Effects</p>

	(Commitment #4), BIMC provided an update on the management plans that are linked to the amendment application. Specific to the AEMP, BIMC proposed to update and revise the AEMP, for submission to the Board for review within 60 days of issuance of the licence.	<p>2014 AEMP has been approved by the NWB.</p> <p>The July 27, 2014 AEMP does not contain aquatic effects monitoring associated with the Milne Port marine environment. BIMC proposes to discharge effluent waters from the Milne Port Ore Stockpile in near proximity to Milne Inlet. It is QIA’s opinion that the effects of this effluent on the receiving environment should be captured within the AEMP for there is a direct relation between the waste deposition activity and Milne Inlet. The QIA understands that the NWB’s mandate is restricted to freshwater and may not extend to include Milne Inlet; however, the AEMP is a logical plan to assess how waste that is regulated by the NWB could potentially impact the environment.</p>		<p>Monitoring Plan has been developed by Baffinland at the request of Environment Canada and submitted to the Marine Environment Working Group for review. This monitoring plan was also included in Appendix J10 of the 2014 NIRB Annual Report. Baffinland has ensured that there is sufficient baseline fisheries and marine baseline data available to undertake such a program.</p> <p>Baffinland has received comments on the AEMP and proposes to respond to these comments through the water licence process, via a response to comments issued to the NWB and/or update to the AEMP filed with the NWB and QIA Annual Report.</p>
2.3 Waste Discharge from Milne Port Ore Stockpile	BIMC proposes to discharge water from the Milne Port Ore Stockpile facility to a location upstream from the ocean, as depicted in the Milne Port Site Layout (H349000-2000-00-015-0002). It is unclear to QIA if BIMC has proposed effluent discharge criteria for the Milne Port Ore Stockpile facility. Environment Canada has informed ¹¹ that the Metal Mining Effluent Regulations do not apply to the Milne Port Ore Stockpile and that the Fisheries Act, which prohibits the discharge of deleterious substances into waters frequented by fish, would apply to Milne Inlet.	Environment Canada stated they “support the establishment of an “end of pipe” Surveillance Network Program (SNP) station to monitor and regulate discharges prior to release into Milne Inlet. The QIA understand this location to be that depicted in Milne Port Site Layout (H349000-2000-00-015-0002). The QIA support Environment Canada’s position of an “end of pipe” SNP at this location, in addition to their statements that this effluent should be subject to compliance testing to assess if the effluent is deleterious, and that the method to assess deleterious effluent should be supported by chemical analysis prior to discharge.	<p>1. A SNP be established for the Milne Port Ore Stockpile effluent discharge.</p> <p>2. Effluent discharge criteria are defined in the water licence for the Milne Port Ore Stockpile waters. The effluent discharge criteria be set to ensure, at a minimum, compliance with the <i>Fisheries Act</i>, thus the water is non-deleterious. Additionally, the effluent water is subjected to chemical analysis to support the deleterious determination. Further discharge criteria be set to ensure that the water is protective of aquatic life.</p>	There will be two separate monitoring stations for the Milne Ore Stockpile that corresponds to the outlets of the East and West settling ponds. Baffinland will establish the exact location for the monitoring station based on discussions with the AANDC Water Resource Officer for the Project and direction provided. The monitoring locations will be immediately upstream from the ocean.
2.3 Monitoring of the Tote Road Stream Crossing	Monitoring of water quality during construction and post-construction of the Tote Road culvert replacements and extensions, as well as, during construction of the bridges is not a component of the existing water licence. Monitoring of stream crossings could have provided evidence to demonstrate if the construction practices were acceptable to mitigate potential	It is BIMC’s opinion that the upgrades to the Tote Road completed in 2013 to 2015 were “required primarily for the purpose of safety and ensuring compliance with applicable regulation under the Mine Health and Safety Act and Regulations” ¹² . The upgrades to the Tote Road have included the construction of numerous culvert extensions, replacement of existing culvers, construction of new bridges and widening of the road. The granular material was sourced, in part, from within the Tote Road right of way from numerous borrow sites. The QIA does not question the need for routine maintenance to ensure user safety on the Tote Road. QIA does question if the use of the Tote Road to haul ore trucks, as proposed in the ERP, is also a driving factor for the substantial upgrades to the Tote Road and watercourse crossings. The Tote Road was	<p>1. An assessment of the construction and post-construction water quality monitoring is completed as an indicator if each watercourse crossing is performing to a degree where the potential impacts to water are acceptable. Should insufficient information exists to complete an assessment for a watercourse crossing, collect the necessary data to enable a determination of potential impacts.</p> <p>2. Any upgrades, adjustment and/or modifications, including but not limited to, additional watercourse crossings, culvert extensions, additional bridge crossings, changes to road</p>	Upgrades to the existing Tote Road are required to accommodate the transport of equipment and ore to support the ERP. Volume 3, Section 2.1.8 of the ERP FEIS, clearly identified the use of 150 t payload ore carrying highway trucks to be used. The upgrades along the Tote Road are required primarily for the purpose of safety and ensuring compliance with applicable safety

	<p>environmental effects. The alteration of the bed or banks of a river, stream, lake or other body of water, whether or not the body of water is seasonal, is water “use” as defined in the Nunavut Waters and Nunavut Surface Rights Tribunal Act. It is QIA’s opinion that the construction of culverts and bridges along the Tote Road and construction and post-construction monitoring of water is within the jurisdiction of the NWB and in QIA’s opinion should be reflected in the water licence. The following projects are examples of other northern road construction and operation projects that have terms and conditions within their water licence associated with the watercourse crossings. For each of these projects, the water licence requires water monitoring upstream and downstream of watercourse crossings; thus, there is precedent for water licences to monitor water quality about watercourses. The City of Iqaluit’s Type ‘B’ Water Licence application (8BW-IGD) to construct a 5.0 km all-weather road to an aggregate source is another example where a road construction and operation sought a water licence.</p>	<p>upgraded in 2008 for the bulk sample program to transport transporting equipment and ore using 45-t trucks. The ERP proposes to haul ore using 150 t trucks, which are heavier and larger than the 45-t trucks used in the bulk sample program. In general, the size and weight of the truck has an influence on the design of an all weather road to ensure safety. With regards to the scope of the Tote Road, as described in the FEIS and water licence applications, QIA provides the following summary. In the FEIS addendum, which in QIA’s opinion forms the basis for this water licence amendment, states the Tote Road stream crossings would consist of:</p> <p><i>“Total of 115 stream crossing</i></p> <ul style="list-style-type: none"> <i>• 4 bridges</i> <i>• 75 culvert replacements</i> <i>• 40 culvert extensions...</i>” <p>It is QIA’s understanding this Tote Road work was completed between 2013 to 2015. Within BIMC’s water licence application for the current licence there are no details provided regarding changes to watercourse crossings. Rather, the scope for the Tote Road in the water licence application for the current licence was generally consistent with the scope defined in the original Final</p> <p>Environmental Impact Statement as follows:</p> <p><i>“The Milne Inlet Tote Road was upgraded in 2008 from a winter road to an all-season road adequate for transporting equipment and ore using 45-t trucks. Figure 1-2.4 presents the alignment of the Milne Inlet Tote Road. The road will be maintained through the construction phase with some improvements to the road base and reductions of steep grades at certain locations. No major improvements or bridge replacements are proposed, and large oversized equipment will be brought over the road during winter”.</i></p> <p>The QIA sought clarity from the NWB regarding the scope of the Tote Road in the current water licence. It was noted that the current water licence defines the Tote Road scope as follows:</p> <p><i>“Tote Road (approximately 100 km all-weather road), which extend from the Mine Site to Milne Port site in its current form except for routine maintenance and minor upgrades for the transportation of equipment during the Construction Phase of the project”.</i></p> <p>The NWB informed that in their opinion the “construction of water crossing and bridges as currently proposed, changes the grade of the road, alignment of the road, widening specific areas of the road for safety purposes”¹³ are not viewed as being outside the scope of the current water licence. This opinion is not shared by the QIA. The upgrades of the Tote Road upgrades are now substantially complete. BIMC has informed that monitoring of watercourse crossings that had potential to impact fish was included in their proposal documents submitted to Fisheries and Oceans Canada (DFO), and may also be included in select management plans for the Mary River project. The QIA does not have the DFO proposals to assess the proposed monitoring. QIA notes that</p>	<p>width, or changes to road height, to the Tote Road from what is defined in the 2013 Issued for Construction drawings is considered outside the scope of the current water licence and the amendment being considered herein. In other words, any future upgrades, adjustment and/or modifications, including but not limited to, additional watercourse crossings, culvert extensions, additional bridge crossings, changes to road width, or changes to road height, to the Tote Road shall require subsequent amendments to the licence.</p> <p>3. The monitoring of surface water the evaluation of potential impacts to water about the Tote Road infrastructure is addressed within the AEMP, or other appropriate management plan.</p>	<p>regulation under the Mine Health and Safety Act and Regulations for the equipment and activities that were proposed and approved in the ERP FEIS.</p> <p>Monitoring of crossings both during and post construction are included in the proposal documents submitted to DFO and are a requirement in existing DFO authorizations. The July 2014 Environmental Protection Plan for the project contains several Operational Environmental Standards (OESs) that are relevant to the management and monitoring of construction activities along the Tote Road. These include OES 2.17 Road Construction and Borrow Development, and OES 2.18 Tote Road Watercourse Crossing Installation. In addition the Surface Water and Aquatic Ecosystem Management Plan (July 2014) also includes control and monitoring methodologies to be adopted for construction activities along the Tote Road.</p> <p>In addition the DFO reviewed the updated August 2013 design for the stream crossings and determined that the proposed work would not likely result in impacts to fish and fish habitat provided that our proposal is implemented as planned. Refer to DFO Letters of Advice dated December 16 and December 20, 2013.</p> <p>An annual inspection of all fish bearing stream crossings is undertaken each year under the direction of a fish biologist. The results of annual monitoring are provided in an annual report provided to DFO.</p>
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		not all watercourse crossings are subject to DFO authorization an that a DFO authorization is not a substitute for consideration of monitoring of watercourse crossings in the water licence.		
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Baffinland Responses to Agency Comments on the Amendment to the Type A Water Licence 2AM-MRY1325		
Number	Recommendation	BIM Response
	AANDC – Cover Letter	
Part I: Site Specific Recommendations	The existing Part C and the existing Schedule C of the licence are capable of being misread. It is not sufficiently clear that the Board has no jurisdiction over the private security held by QIA outside the water licence. Part II of this submission addresses more generally the role of the Board in relation to private security held outside the licence. AANDC recommends that both Part C and Schedule C be thoroughly revised to more clearly indicate that the <i>only</i> security within the Board’s jurisdiction is the security fixed the Board within the licence and accordingly furnished to the Minister of Aboriginal Affairs and Northern Development. AANDC believes that Part II of this letter provides useful terminology and we would be happy to provide more specific suggested changes, if the Board would find that helpful. Without limiting that broader recommendation, AANDC suggests that the Board not accept Baffinland’s suggested changes to licence Part, C paragraph 1 to the extent that they address the QIA security. The licence should deal only with matters within the jurisdiction of the Board. This recommendation is for the purposes of clarity and should not affect the substance of Baffinland’s request.	It is not clear what alternative wording is being proposed by AANDC. In Baffinland’s view, the current wording (which expressly acknowledges the amount of security held by QIA) is appropriate to include within the licence.
	This project has just undergone a security quantification process within the 2015 Annual Security Review Process. If the 2015 Work Plan that formed the basis of the 2015 ASR remains an accurate reflection of what Baffinland intends to do in the 2015-2016 period, then the 2015 ASR’s assumptions remain valid and the Board does not need to re-evaluate security at this time. However if Baffinland intends to exceed the scope of work that was assessed in the 2015 ASR, then Baffinland must provide the evidence of the increased scope of work and the reclamation cost estimates associated with that increase.	Baffinland confirms it does not intend to exceed the scope of work that was assessed in the 2015 ASR and therefore the results of the 2015 ASR remain valid.
	If it is necessary for the Board to reconsider security quantum because the 2015 ASR assumptions are no longer valid, then the following recommendations apply: a. AANDC recognizes that there is a private land owner seeking to ensure that its own interests are also secured. However, in the absence of necessary evidence on private security for the marginal increased reclamation cost estimates, AANDC recommends that the entire increase should be secured in the water licence. b. Because a small portion of the project takes place on Crown land, AANDC reminds the Board of its submissions throughout the Baffinland licensing process that discounting based on private security must not leave the Crown under-secured either for reclamation costs for Crown land or waters in or on Crown lands. c. If BIMC and QIA enter into further security arrangements after the Board is able to take them into account in this process, then BIMC can apply to the Board at the appropriate time for a reduction in security as part of an amendment process. At that point, BIMC would still need to	As the results of the 2015 ASR remain valid, these recommendations are not applicable.

	<p>provide the evidence and submissions referred to in this letter and the Board would have to determine whether that security arrangement is a good substitute for security under the Act, and therefore a reasonable basis to discount the licence security.</p>	
	<p>AANDC is aware that both Baffinland and QIA are interested in moving away from a rigid annual approach to security re-estimation and reconsideration. AANDC sees merit in this approach. From the outset, Baffinland has requested that the Board take a graduated approach to reclamation cost estimation and security requirements. As a result, this licence authorizes a project scope that is greater than the basis on which reclamation cost is currently being estimated. Therefore the Board must take steps to keep work plan assumptions and security requirements aligned.</p> <p>To support this alignment between work plans and security, AANDC recommends that the licence clearly limit the permitted scope of work to an approved work plan, whether work plans are developed for one-year periods, longer periods or for phases or milestones Underlying this recommendation is the assumption that before approving a work plan, the Board must determine that all components of the work plan have been secured – either by appropriate private security, or by security fixed by the Board within the licence – in consideration of the peak reclamation cost estimated to occur under that work plan.</p> <p>It is not clear why the matters in Schedule J are being addressed separately from the matters addressed in Part C and Schedule C. AANDC recommends that the Board consider further integrating those matters.</p>	<p>For clarity, it is anticipated that security reviews will likely be required annually in the near term. However once active construction is complete, annual reviews may not be necessary in order to ensure that sufficient reclamation security is in place to cover the outstanding reclamation liability at site. Consistent with the suggested changes to Part C, Baffinland also suggests the following revised wording to Part J, Item 3:</p> <p><u>“Unless otherwise directed by the Board</u>, the Licensee shall, on an annual basis, provide an annual work plan and updated estimate of anticipated mine closure and reclamation costs for the upcoming year accordance with the requirements of Schedule J”</p> <p>AANDC’s concern is addressed within the current licence requirements, which require that <i>“the total financial security amount must be calculated at the beginning of the work year and must be sufficient to meet the highest reclamation liability in the upcoming year”</i> (see section 6, Schedule C).</p>
	<p>The licence should require Baffinland to inform the Board promptly of any material change in a private security arrangement that has formed the basis for discounting. The rationale for this recommendation is explained in Part II of the letter.</p>	<p>Noted. Baffinland would notify the Board should it become aware of any reduction in the amount of security held by QIA.</p>
	<p>Schedule C should be amended to give the Board more procedural flexibility in conducting reevaluations of the security. The rationale for this recommendation is explained in Part II of the letter.</p>	<p>See comments below.</p>
	<p>Schedule C can be read as suggesting that the security under the licence could be changed without amendment to the licence. AANDC recommends that the licence should be amended to remove that implication</p>	<p>Baffinland agrees with the current approach, which would permit the Board to approve the increase or decrease of the amount of security on application by the Minister, QIA or Baffinland.</p>
	<p>For all future security re-evaluation processes, AANDC recommends that the Board should adopt the evidence-based approach to discounting on the basis of private security that is discussed more fully in Part II of the letter.</p>	<p>See response to Part II below.</p>

	<p>AANDC recommends that the Board reconsider the text in Part B, section 16. A term or condition of a licence cannot be altered except by amendment of the licence.</p>	<p>Baffinland is of the view that the Board should continue to retain procedural flexibility with respect to changes to Licence schedules, as described in Part B section 17.</p>
<p>Part II: The Approach to Discounting</p>	<p>In the last several years, AANDC has supported an approach in which the Nunavut Water Board reduces the amount of security it orders under the water licence on the basis of private security held outside the water licence regime. The purpose of this approach is to reduce ‘over bonding’, which can occur when an operator must secure the same reclamation activities to two secured parties, in this case the Crown under the Act and the private landowner under their contractual arrangements. AANDC’s support for discounting to avoid over-bonding is conditional. The primary consideration is that in case of operator insolvency, there is adequate security to ensure that environmentally responsible shutdown, interim care and maintenance, and reclamation can be conducted without the Crown or the landowner incurring costs that should have been borne by the operator.</p> <p>To achieve this objective, it is crucial that the Board discount only where it is satisfied that the land owner actually holds security, and where the Board has reviewed the terms of that security arrangement, and come to the conclusion that the security stands in good substitute for security that would otherwise have been fixed by the Board as a condition of the licence.</p> <p>While the Board has decision-making responsibility in fixing the amount of security under the water licence, the operator bears the burden of proving that private security outside the licence is a good substitute for water licence security. That requires the operator to furnish the necessary evidence in a timely way, and provide a satisfactory explanation of why reliance on this private security justifies the Board exercising its jurisdiction to secure less than the full reclamation cost estimate. Looking at both the security instrument, and any contracts or other limitations governing its access and use, the operator, potentially with the support of the land-owner, would have to establish that:</p> <ul style="list-style-type: none">☐ The private security available for the same purposes as licence security under section 76(2)(b) of the Act;☐ The land owner intends to use the security for the same purposes as licence security under section 76(2)(b) of the Act;☐ The land owner is accepting responsibility to ensure that the purposes of the Act are carried out, including responding to an inspector’s direction under section 87 of the Act;☐ The private security cannot be used for purposes other than those covered in section 76(2)(b) of the Act. Unless that is the case, the private security could be reduced without fulfilling the purposes of the Act. For example, if the security could be drawn as compensation for damages, as opposed to funding physical remediation, the purposes of the Act would not be fulfilled; and☐ The private security is no more vulnerable to the operator’s or land-owner’s creditors than Act based security would be. <p>Absent clear Board findings that the land-owner actually holds security, and that the security reasonably approximates Crown-held security, the Board should not discount the water licence security. It should be clear from the above that the Board does not establish how much security a private landowner might negotiate with an operator on their land, nor does the Board control the terms of that arrangement. Rather, the Board can consider privately-held security in coming to its conclusion in how to exercise its own jurisdiction in fixing security within the licence.</p> <p>The following sets out what the Department sees as the Board’s role in this process:</p>	<p>The Board’s reasons for decision on the 2015 ASR dated February 11, 2015 fully address these matters. The current processes applied by the Board and outlined in the Licence are appropriate and consistent with the Act and Regulations.</p>

	<p>1. On the basis of evidence, determine what the total cost of abandonment and reclamation of the appurtenant undertaking is likely to be. This is a finding of fact.</p> <p>2. On the basis of evidence, determine what private security is held by the land-owner outside of the statutory regime, including the terms of its access and use. This is a finding of fact. The evidence in support of this should be provided to the Board well in advance of a hearing on the matter.</p> <p>3. On the basis of the Board’s findings of fact about the private security held outside the statutory regime, determine whether in the Board’s view the private security reasonably approximates Crown-held security. This is a decision, not a finding of fact, and requires complex analysis and judgment.</p> <p>In AANDC’s view, the Board could only be in a good position to conduct this analysis if it is supported by written submissions on that point by the operator, provided well in advance of the hearing. The security arrangement and proponent’s submissions, once provided to the Board, would be available for public review so that that AANDC, the landowner, and other interveners would be able to assess and provide comment. Cross-examination on relevant issues may also be helpful to the Board.</p> <p>4. On the basis of the above, the Board can then determine how much security to fix within the licence for the purposes of 76(1) of the Act and section 10 of the <i>Nunavut Waters Regulations</i>, and the security would then be furnished and maintained with the Minister of Aboriginal Affairs and Northern Development.</p> <p>5. Any Type A licence is of course subject to the approval of the Minister of Aboriginal Affairs in accordance with section 56 of the Act.</p>	
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Number	Background	Recommendation	BIM Response
	AANDC – Technical Issues		
2.1 Water Withdrawal Quantities	<p>The Knight Piésold memo submitted with the initial amendment application stated that <i>“the estimated maximum daily water consumption for road dust suppression has been rounded upward from the expected 1,325 m3 to 1,500m3, from all water sources along the tote road.”</i> The newly modified application requests 2,788.5 m3/day for dust suppression, <i>“due to the requirement to have operational flexibility in the licence. ...Therefore, Baffinland may focus dust suppression efforts on a portion of the road, requiring more water to be taken from certain water sources on certain days, whilst not requiring any water from other sources.”</i></p> <p>AANDC questions the necessity of increasing the daily withdrawal quantity for operational flexibility. If efforts are being focused on one segment of the road and more water is applied there, the increased water withdrawal in that area should be compensated by a decrease in other road segments. The values presented for water withdrawal rates were calculated using stream discharge estimated from the catchment area based on a relationship developed using stream gauging data from 2006-</p>	<p>AANDC recommends that</p> <p>a. the maximum daily water consumption for road dust suppression be limited to 1 500m3/day unless Baffinland can provide sound justification to use more than 1 500 m3/day and more site specific discharge data;</p> <p>b. the streams and monitoring methods used to determine low flow years that constitute a restriction for certain stations be agreed upon and representative of the catchments water is abstracted from.</p>	<p>The scenario presented by AANDC that all 7 water take locations in the Phillip’s Creek catchment could experience maximum withdrawals consecutively is overly conservative, beyond what is proposed by Baffinland. And yet only results in an estimated 3% of creek flow. This is well below the instantaneous water take threshold of 20% of the 10-year low flow applied in the assessment, allowing for a margin of error in the 10-year low flow estimate. With respect to AANDC’s comment</p>

	<p>2011. It is not clear if these calculations took into account how several sub-catchments can feed into a larger catchment. Seven of the water stations proposed along the tote road appear to be in the Phillips' Creek catchment, for a total withdrawal of 2119.5 m3/day. This is in addition to the 367.5 m3/day requested for the Milne Port site from the same catchment and would add up to 3% of the creek flow, as estimated using a 1.03 L/s·km 10-year dry unit runoff. Given that there is no discharge data available for Phillips' Creek, the data used for developing the 10-year dry unit runoff is not necessarily representative of the whole catchment and the uncertainty has not been estimated, there may be significant error in the 3% estimate.</p>		<p>regarding lack of stream gauging on Phillip's Creek, it should be noted that the H1 station is located on a major tributary of Phillip's Creek. The 10-year dry year unit runoff for 5 stations presented in Table 2 of the KP memo are similar and the lowest unit runoff estimate was used in the assessment.</p> <p>Baffinland's request for operational flexibility comes from experience on-site where unforeseen circumstances can require occasional exceptions. The request we are making is reasonable in consideration that we have adequately and conservatively demonstrated that the additional volumes requested will not result in adverse effects to downstream water quantities.</p>
<p>2.2 Interim Closure and Reclamation Plan</p>	<p>Mine closure and reclamation costs have been reviewed through two processes occurring between August 2014 and April 2015: 1) annual security review (ASR) process; and 2) water licence amendment review process</p> <p>1) Annual Security Review The ASR process is based on the 2015 Work Plan for the Early Revenue Phase and includes the review of the highest reclamation cost anticipated by BIMC for the upcoming 2015 site development and activities. AANDC has provided review comments on the 2015 Work Plan reclamation cost estimates in two letters to the NWB dated December 5, 2014 and January 22, 2015. Additional comments have been provided in the cover letter to this final written submission to the NWB and will not be further detailed within this section.</p> <p>2) Water Licence Amendment Technical Review The highest reclamation cost was estimated for the 'Ultimate Project' by BIMC in their Interim Mine Closure and Reclamation Plan (IMCRP), dated June 27, 2014. The Ultimate Project is defined as the full development of the Mine Site, Milne Port, Steensby Port, and the two transportation corridors (Tote Road to Milne Port, and railway to Steensby Port). The reclamation costs were estimated by applying the unit costs developed by Hatch Engineering, in their <i>Hatch Assessment Methodology</i>, then entered into the AANDC Reclaim Model (ver 6) spreadsheet according to geographical - based areas then further subdivided into specific facilities and activities. Based on this 2012 estimation method the mine closure and grand total reclamation cost is estimated to be \$518,711,208.</p> <p>As part of the Type A water licence amendment technical review process, the June 27, 2014 IMCRP was assessed by SNC-Lavalin Inc (SNC) on behalf of the Department. SNC's review comments on the security estimates are included in the AANDC written submissions to the NWB dated September 15, 2014,</p>	<p>The amended water licence should reference under Part J, the most recent mine closure and reclamation plan (issued June 27, 2014) and security cost estimates (issued March 25, 2015) for the Ultimate Project development.</p>	<p>Baffinland agrees.</p>

	November 14, 2014, and January 12, 2015. The key issue raised by SNC-Lavalin, was that the cost estimate associated with the Early Revenue Phase site development activities were not included in the IMCRP (dated June 27, 2014). That is, there was no change to the reclamation estimate in the June 27, 2014 from what was submitted in the FEIS Preliminary MCRP (dated February 2012). BIMC submitted the updated Final Environmental Impact Statement (FEIS) Closure and Reclamation – Financial Security Estimate Addendum on March 25, 2015. This document includes the updated reclamation cost estimate for the Ultimate Project. The same reclamation estimation method used in 2012 was applied to the March 2014 cost estimate to include the additional Early Revenue Phase site development and activities. The revised financial security estimate provided by BIMC for the Ultimate Project closure and reclamation has increased by \$ 7,815,079 to a grand total \$526,526,287 .		
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Baffinland Responses to Agency Comments on the Amendment to the Type A Water Licence 2AM-MRY1325	
Comment	Baffinland Response
<i>HTO Committee</i>	
Renew licence every year, instead of every few years, due to water that is near hunter’s cabin. It might get hazardous to drink, if it is not reviewed & renewed every year and other species that goes to lakes and rivers.ie... birds, ducks and animals such as caribou. Renew licence every year	The Term of the Licence is determined by the NWB. Baffinland does not believe that an annual renewal of the licence will address the concerns raised on water quality. The Aquatic Effects Monitoring Program addresses the concerns raised.
Due to lakes, rivers and streams might get hazardous to drink for hunters, animals and ducks. Including land locked fishes that don’t go to saltwater, oceans. Due to its caribou calving area, it might be hazardous to drink. Keep the monitoring going even those species are not close to mine site, those streams and rivers are still heading everywhere due to that mine site is near to the mountain and that waste water come from top once it goes down and it goes everywhere all the way down to Philip’s Creek.	Baffinland’s Aquatic Effects Monitoring Program requires Baffinland to continue to monitor water and sediment quality in areas potentially impacted by the projects discharges. Fish and aquatic organisms are also examined in these areas to ensure that their health is not adversely impacted.
Why are you guys giving us last minute to do this and it is busy time of the year. You guys should notify HTO that there will be deadline for these submission When the hearing going to be, is it going to be last minute? I hope you notify us before the last minute.	This question is directed towards the NWB.