

 Affaires autochtones et  
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**Presentation to Final Hearing  
Baffinland Iron Mines Corporation  
Mary River Project  
Type A Water Licence Application**

Nunavut Water Board Final Hearing  
Pond Inlet, Nunavut  
April 23-25, 2013



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**Presentation Outline**

1. Role and Responsibilities
2. Contributions to the Type A Water Licence Review
3. Final Technical Comments

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## Role and Responsibilities of the Department

The Department's responsibilities, mandate and obligations stem from the following applicable laws and policies:

- *Department of Indian Affairs and Northern Development Act*
- *Nunavut Land Claims Agreement Act*
- *Nunavut Waters and Nunavut Surface Rights Tribunal Act* and the associated regulations
- *Territorial Lands Act* and the associated regulations
- Mine Site Reclamation Policy for Nunavut

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## Contributions to the Type A Water Licence Review

1. Completeness review of the Type A water licence application submitted on March 30, 2012.
2. Technical review of the Type A water licence application submitted on June 22, 2012.
3. Participation in the Preliminary Technical Meeting held on October 18, 2012.
4. Letter of clarification to Baffinland Iron Mines Corporation sent on December 11, 2012.
5. Participation in the Technical Meeting / Pre Hearing Conference held on January 16-17, 2013.
6. Final review of the Type A water licence application submitted on March 22, 2013.
7. Participation in meetings with Baffinland regarding the Aquatic Effects Monitoring Program Framework, pit lake water quality, 2013 Work Plan, and Closure Cost Estimate for 2013 Work Plan.

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## Contributions to the Type A Water Licence Review

### Acknowledgements

The Department would like to thank Qikiqtani Inuit Association and our counterparts in other federal government agencies for technical discussions on particular issues during the course of the review.

The Department would also like to acknowledge the contribution that Baffinland has made to the efficiency of the review process by providing detailed summaries of comments and issues at each stage.

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## Final Technical Comments

The Department presented final written comments and recommendations regarding the Type A water licence application in the following categories:

1. Relevant Project Certificate Terms and Conditions
2. Additional Type B Water Licence Applications
3. Type and Amount of Security
4. Water Quality
5. Waste Management
6. Management Plans
7. Monitoring

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## Final Technical Comments

### Relevant Project Certificate Terms and Conditions

**Comments 1.1 - 1.5:** The Department recommended that the water licence require the following:

- 1.1. Include results of climate change studies in annual reports and incorporate results into management plan updates.
- 1.2. Monitor and report on pH of nearby freshwater in cases where repeated exceedances of sulphur dioxide and nitrous oxide emissions are observed.
- 1.3. Water sampling of ammonium and nitrate concentrations in surface water for extensive blasting programs and the sampling results be included in the annual report.
- 1.4. Groundwater Monitoring and Management Plan be submitted to the Board
- 1.5. Report results of revegetation trials in annual reports and incorporate results into management plan updates.

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## Final Technical Comments

### Additional Type B Water Licence Applications

**Comment 3.1:** Temporary camp mid-way along the Milne Inlet Tote Road

The Department recommends that Baffinland submit a water licence application for the camp.

Baffinland indicated that a water licence is not required for this camp since there will be no dedicated water supply or any local discharges of waste.

The Department notes that a water licence will be required should the camp include: flow alteration or watercourse diversion in relation to potential pad construction, or holding of sewage in a pond on site.

If the camp is located on Crown land, an amendment to the current land use permit will also be required.

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## Final Technical Comments

### Type and Amount of Security:

#### *Mine Site Reclamation Policy for Nunavut*

"The total financial security for final reclamation required at any time during the life of the mine should be equal to the total outstanding reclamation liability for land and water combined (calculated at the beginning of the work year, to be sufficient to cover the highest liability over that time period)" (p. 6).

#### Interpreting the policy for Mary River Project:

- a. The amount of reclamation security should cover the highest planned reclamation liability at all times, including cumulative and legacy liabilities.
- b. The licence should allow for increases or decreases of security as additional information is generated and as facts change.
- c. Security quantum should be assessed by looking holistically at all environmental components without being split into arbitrary land and water components. If the evidence demonstrates that "robust" security is held outside the *NWNSRTA* framework, the Board can take that into account.

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## Final Technical Comments

### Type and Amount of Security:

#### Department Recommendations

1. That the Board order the posting of the full amount of security needed to reclaim the site at all times unless it is satisfied, based on evidence, that equivalent security is held under other another mechanism, such as a security management agreement between Baffinland, Qikiqtani Inuit Association and Aboriginal Affairs and Northern Development Canada, or land leases for the project. The evidence must demonstrate the following:
  - (a) the security contract is in fact enforceable and provides equivalent protection to that which could be held under the water licence; and
  - (b) the security is in fact being held, and will be held in a robust form which provides equivalent protection to that required under section 12 of the *Northwest Territories Water Regulations* and as contemplated by the Department's *Mine Site Reclamation Policy for Nunavut*.

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## Final Technical Comments

### Type and Amount of Security: Department Recommendations

2. That the water licence include a mechanism to allow, based on evidence, a decrease in the quantum of water licence security. This would allow a procedurally efficient adjustment should acceptable security be forthcoming outside the water licence (e.g., under a security management contract, land lease, etc.)

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## Final Technical Comments

### Type and Amount of Security: Department Recommendations

3. On future re-assessments of security (and subject to our comments on evidence requirements for "robust" security), we suggest in principal that the Board accept a split in the overall security for the project between Crown land and Inuit owned land, based on the methodology presented by Baffinland in the Preliminary Mine Closure and Reclamation Plan. Security held under a Crown land lease could then be discounted only against the portion of overall security assigned to Crown land, and security held under an Inuit land lease could be discounted only against the portion of the overall security assigned to the Inuit land.

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## Final Technical Comments

### Type and Amount of Security: Department Recommendations

4. That the Board circulate a draft version of the terms and conditions of the water licence for comment from interveners during the 30 to 45 day decision period following the final hearing. This will provide an opportunity for parties to comment on draft security terms and conditions in the water licence before they are finalized by the Board.

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## Final Technical Comments

### Type and Amount of Security: Department Recommendations

5. That Baffinland be required to provide a fully updated reclamation cost review for the entire project, including potential cumulative and legacy liabilities, as part of regular updates to the Board. This review should be prepared at least once every three years, certified and stamped by a professional engineer, and signed by the company's Chief Executive Officer. The updated Interim Mine Closure and Reclamation Plan should be subject to Board approval.

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## Final Technical Comments

### Type and Amount of Security: Department Recommendations

6. That if the Board decides to re-assess the security amount annually, based on annual work plans, that the license explicitly prohibit Baffinland from conducting any work not described in the annual work-plan (except for such work for the purpose of prevention, mitigation or counteracting of a risk to persons, property or the environment).

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## Final Technical Comments

### Type and Amount of Security: Department Recommendations

7. That the Board set the initial security deposit based on the 2013 work plan submitted by Baffinland.

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## Final Technical Comments

### Type and Amount of Security: Department Recommendations

8. Before accepting the Baffinland proposal of an annual review of work plans and closure cost estimates in subsequent years, the Board be satisfied that regulators, land owners, and others with an interest in security bonding have the capacity to provide annual reviews. If the Board decides to accept annual submissions, it should be under the condition that the plan and estimate be submitted by November 1<sup>st</sup> and that security be provided by March 1<sup>st</sup> each year, before the planned activities begin. This will allow a 60 day period for Board and intervener review and approval, a 30 day period for parties to update a potential security management agreement or land lease security requirements, and a 30 day period for security payment.

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## Final Technical Comments

### Water Quality

#### Comment 6.1: Pit lake water quality mitigation (1)

The Baffinland final submission asked for clarification on the following Department recommendation:

"The licence should stipulate that mitigation options for pit lake water quality be designed to satisfy the definition of a walk-away closure plan (i.e. the site will demonstrate chemical and physical stability that satisfies closure objectives and will not require long term monitoring or maintenance) that would be completed within no more than 25 years following mine closure or abandonment."

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## Final Technical Comments

### Water Quality

#### Comment 6.1 Continued: Pit lake water quality mitigation (2)

The water licence should prohibit the creation of a mine pit until all of the following conditions are met:

- (a) the acid generating and metal leaching projections for the hanging and foot walls are updated;
- (b) an improved modeling prediction of pit lake water quality has been conducted;
- (c) mitigation options based on updated pit lake water quality predictions have been developed and reviewed and approved by the Nunavut Planning Commission, the Nunavut Impact Review Board and the Nunavut Water Board as may be required;
- (d) the pit lake water quality mitigations have been included in an update to the Interim Mine Closure and Reclamation Plan;
- (e) a schedule of associated reclamation security requirements has been developed;
- (f) the updated closure plan and security schedule has been reviewed and approved by the Board.

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## Final Technical Comments

### Water Quality

#### Comment 6.1 Continued: Pit lake water quality mitigation (3)

##### Additional recommendation:

That Baffinland be required to submit a pit lake water quality mitigation plan for approval by the Nunavut Water Board within four years of issuance of the water licence, and that the plan include an accelerated fill option unless another option, that would be completed within 25 years after pit closure, can be demonstrated to prevent an impact on downstream water quality from pit lake overflow.

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## Final Technical Comments

### Waste Management

**Comment 7.1:** Disposal of dredging material on land does not appear to be in the water licence application

Baffinland indicated that the preferred option for disposal of dredging material is at sea and that a permit application would require additional baseline studies that are not yet available. While a land disposal option was provided in the FEIS, it was not included in the Type A water licence application.

The Department recommends that the water licence include a requirement that land disposal of dredging material at Milne Inlet or Steensby Inlet be prohibited until such time as the Waste Management Plan be updated to include land disposal of dredging waste, and that the updated plan be reviewed and approved by the Board.

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## Final Technical Comments

### Management Plans

**Comment 8.1:** Submission and approval of management plans (1)

The Department prefers that detailed management plans be submitted for review prior to issuance of a water licence, where technically feasible. In cases where plans are inconsistent with other plans, lack sufficient detail for adequate assessment, or fail to address particular concerns, the Department may ask for plan updates to be submitted for consideration after the issuance of the licence.

The Department recommends:

- a) Plans and any subsequent updates to each plan should be circulated for comments by interested parties prior to Board approval;
- b) activities potentially posing significant risk to water ... should be not be permitted until associated management plans have been approved by the Board;

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## Final Technical Comments

## Monitoring

### Comment 9.1:

The Department recommends that the monitoring requirements within management plans be updated following issuance of the water licence in accordance with the Aquatic Effects Monitoring Program Framework to ensure that monitoring is consistent between all plans.

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