

NIRB Contribution to the NPC/NIRB Joint Review of the Transportation Corridor Application under the North Baffin Regional Land Use Plan for Baffinland Iron Mines Corporation's "Early Revenue Phase" Proposal

Overview

This summary has been provided to the Nunavut Planning Commission (NPC) to outline information relevant for the NPC's consideration of the North Baffin Regional Land Use Plan (NBRLUP) transportation corridor application associated with Baffinland Iron Mines Corporation's (BIMC or Proponent) Early Revenue Phase (ERP) Proposal. This information has been collected through the Nunavut Impact Review Board's (NIRB) reconsideration of the terms and conditions of Project Certificate No.: 005 associated with Baffinland's Mary River Project (NIRB File No.: 08MN053), pursuant to Article 12, Section 12.8.2 of the Nunavut Land Claims Agreement (NLCA).

Recognizing that the NPC has the expertise to consider the land use planning aspects of the transportation corridor application and is the authority established under the NLCA with jurisdiction to consider the transportation corridor application, the sole focus of the NIRB summary is on the ecosystemic and socio-economic issues that may be linked to the transportation corridor application that were identified during the course of the NIRB's reconsideration of Project Certificate No.: 005. This summary is not offered as, nor should it be construed as an indication or other form of decision by the NIRB regarding the acceptability of the transportation corridor application for the ERP Proposal. Further, this summary is not indicative of the ultimate disposition of the NIRB's reconsideration process for the terms and conditions of Project Certificate No.: 005 under NLCA Article 12, Section 12.8.2, which will be reported directly to the relevant Minister in a decision report in the near future.

Procedural History

On February 7, 2013 in correspondence to the NIRB, the NPC confirmed that the routing of ore shipments along the Milne Inlet Tote Road (Tote Road) proposed by BIMC in the ERP Proposal was not included in the NPC's positive conformity determination for the original Mary River Project issued by the NPC on April 30, 2008 (NIRB File No.: 08MN053). On this basis, the NPC indicated that a new conformity determination was required by the NPC for the development option proposed in the ERP. In response, the NIRB confirmed on February 12, 2013 that the NPC conformity determination constituted a key precondition to the NIRB's initiation of the Board's internal review process of BIMC's Final Environmental Impact Assessment Addendum (FEIS Addendum).



On June 24, 2013, the NPC received an application from Fisheries and Oceans Canada requesting a conformity determination for Baffinland's ERP proposal, with the ERP Proposal (FEIS Addendum) also provided for the NPC's consideration. On August 6, 2013, the NPC requested that BIMC make an application for the development of a transportation corridor under Section 3.5.11 of the NBRLUP. BIMC submitted the requested application for an amendment to the NBRLUP for the development of a transportation corridor to the NPC on August 9, 2013. On August 13, 2013 the NPC forwarded Baffinland's application to amend the NBRLUP to the NIRB for reference.

On August 13, 2013 the NPC issued a conditional conformity determination for the ERP Proposal advising the Proponent that pursuant to Section 3.5.12 of the NBRLUP, a joint review process was required to be conducted between the NPC and the NIRB which would address the development of the transportation corridor associated with the ERP Proposal. NPC directed that as the ERP seeks to amend the approved Mary River project by incorporating, among other activities, increased usage of the existing Milne Inlet Tote Road and shipping through a port at Milne Inlet during the open water season to allow for transport of up to 3.5 million tons of iron ore each year, the ERP triggered the requirement for an application and joint NPC-NIRB review of the transportation corridor under the NBRLUP.

On August 15, 2013, having received the NPC's conditional conformity determination, the NIRB commenced the technical review period for the ERP. During the technical review period, on September 23, 2013 the NIRB issued a specific invitation for parties to provide technical review comments to address whether the requirements of NBRLUP Appendix K had been met by BIMC's FEIS Addendum and NBRLUP application. Specifically parties were asked to comment on the following aspects of the proposed transportation corridor:

- Acceptability of the corridor width;
- Proposed measures for mitigation of potential adverse impacts; and
- Likelihood of maximizing access to other resources while minimizing the overall footprint.

Following the October 18, 2013 deadline for receiving technical review comments, the NIRB identified comments regarding the information requirements of Appendix K of the NBRLUP in the submissions of:

- Aboriginal Affairs and Northern Development Canada;
- Parks Canada; and
- Transport Canada.

On November 14, 2013 the NIRB forwarded the relevant technical review comments to the NPC for its consideration. On November 18, 2013 the NPC issued public notice of oral hearings to be held in



January 2014 by NPC in the communities of Clyde River, Grise Fiord, Resolute Bay, Arctic Bay and Pond Inlet for the purpose of soliciting feedback to be considered by the NPC to determine whether to recommend an amendment to the NBRLUP to allow the proposed transportation corridor to proceed. On November 26, 2013 the NIRB confirmed that although the Board would not be participating directly in the NPC's oral hearings, the NIRB would continue to participate in the joint review by providing the NPC with its input regarding the transportation corridor application as facilitated through the NIRB's ongoing assessment of the ERP Proposal.

On November 26-27, 2013 the NPC attended the meeting of technical experts facilitated by the NIRB as the next step in the Board's Section 12.8.2 reconsideration process and was present to hear technical review comments discussed during the meeting. In the early part of January 2014 the NPC conducted its own oral hearings regarding the transportation corridor application.

On January 27-29, 2014 the NPC participated in the NIRB Public Hearing in respect of the Board's assessment of the ERP Proposal, including making a presentation and asking and answering questions during the technical presentations portion of the Public Hearing.

All documentation associated with the NIRB's reconsideration of the terms and conditions of Project Certificate No.: 005 can be accessed online from the NIRB's public registry at the following location:

http://ftp.nirb.ca/03-MONITORING/08MN053-MARY%20RIVER%20IRON%20MINE/01-PROJECT%20CERTIFICATE/04-AMENDMENTS/ERP/

Comment Submissions

As noted above, Aboriginal Affairs and Northern Development Canada stated, in its technical review comments provided to the NIRB on October 18, 2013 and forwarded to the NPC on November 14, 2013 that: "AANDC finds that the requirements of NBRLUP Appendix K appear to be met by Baffinland's FEIS Addendum and NBRLUP amendment application."

The technical review comments of Parks Canada with respect to the transportation corridor received by the NIRB on October 18, 2013 emphasized that the NPC and the NIRB should give due consideration to the fact that the process to establish a National Marine Conservation Area in Lancaster Sound is underway when the NPC and the NIRB consider the transportation corridor application. The submission also highlighted that pursuant to Article 8, Part 2, section 8.2.10 of the NLCA, the NBRLUP does not apply within National Parks, so any amendment to the NBRLUP recommended by the NPC would not change the application of the Plan within Sirmilik National Parks.



The technical review comments of Transport Canada provided to the NIRB on October 18, 2013 identified that various aspects of the proposed transportation corridor may be governed by several Acts and Regulations administered by Transport Canada, including:

- Arctic Waters Pollution Prevention Act
- Canada Shipping Act, 2001
- Coasting Trade Act
- Marine Liability Act
- Marine Transportation Security Act
- Marine Transportation Security Regulations
- Navigable Waters Protection Act
- Transportation of Dangerous Goods Act
- Transportation of Dangerous Goods Regulations

At that time, Transport Canada also preserved the right to identify specific mitigation measures as further information and details on the transportation corridor became available during the ongoing environmental assessment.

Technical review comments were also received from the World Wildlife Foundation (WWF) that indicated that a central component of the review of the ERP Proposal would be the assessment of the potential for narwhal displacement from what WWF recognized to be very important natural summering habitat for thousands of narwhal. Furthermore, WWF noted that despite the assurances and conclusions presented in the FEIS and ERP FEIS Addendum, its position was that it is likely that there would be loss and reduced quality of Milne Inlet habitat for narwhal, and that this is not in conformity with the current regional NBRLUP (Sections 3.5.11 and 3.5.12, and Appendices G, J and K), and that it would be contrary to the purpose of the proposed Lancaster Sound National Marine Conservation Area.

In addition, at the NIRB Public Hearing, comments relevant to the following aspects of Appendices J and K were discussed:

- Item J 2: A comparison of the proposed route with alternative routes in terms of environmental and social factors as well as technical and cost considerations;
- Item K 1: physical and biophysical conditions;



- Item K 2: minimize negative impacts on community lifestyles;
- Item K 3: in keeping with existing legal and legislative requirements, including the NLCA, corridors shall not negatively impact:
 - important fish and wildlife harvesting areas;
 - key habitat for fish and wildlife species, especially areas used by endangered species; and
 - areas of high scenic, historic, cultural and archaeological value.

Table B-1 summarizes the additional relevant information about the potential impacts of the transportation corridor (Tote Road) that was provided during the NIRB's Public Hearing:

Table B-1: Relevant Information from the NIRB Public Hearing

NPC Transportation Corridor Application: Tote Road

| Section of Appendix K | Comment | References |
|--|---|--|
| Item K 1: physical and biophysical condition | Concerns regarding the potential impacts to vegetation, human health, wildlife and surface water quality associated with dust emissions along the Tote Road | See for example the discussions of these issues in NIRB Public Hearing File No.: 08MN053, Early Revenue Phase Proposal, Transcripts: January 27, 2014, pp. 177, 179, 188-189, 222-223, 235-236 and 244-245 January 28, 2014, pp. 342, 347 and 419 January 29, 2014, pp. 678-681, 683 and 684 January 30, 2014, p. 834 January 31, 2014, pp. 1007, 1015 and 1114 |
| Item K 1: physical and biophysical condition | Concerns regarding effects of permafrost degradation on road | See for example the discussions of these issues in NIRB Public Hearing |



| | over the life of the project | File No.: 08MN053, Early Revenue Phase Proposal, Transcripts: January 27, 2014, pp. 213 and 214 January 29, 2014, p. 530 January 30, 2014, p. 847 January 31, 2014, pp. 1008 and 1046 |
|---|--|---|
| Item K 2: minimize negative impacts on community lifestyles | Safety concerns for hunters crossing the road associated with the placement of rock embankments along the road in places, such as where there are sharp drop offs or tight corners, required to ensure the safety of the ore trucks | See for example the discussions of these issues in NIRB Public Hearing File No.: 08MN053, Early Revenue Phase Proposal, Transcripts: • January 27, 2014, pp. 186, 189 and 198 • January 30, 2014, pp. 780, 782, 800-801 and 817 |
| Item K 2: minimize negative impacts on community lifestyles | Potential changes to Inuit harvesters' access to traditional harvesting areas as a result of increased road use | See for example the discussions of these issues in NIRB Public Hearing File No.: 08MN053, Early Revenue Phase Proposal, Transcripts: • January 29, 2014, pp. 571, 585 and 640 |
| Item K 3: impacts on important fish and wildlife harvesting areas | Potential for increased water use associated with dust suppression along the road Potential for impacts to water quality, terrestrial habitat and terrestrial wildlife that could be associated with accidents/malfunctions along the | See for example the discussions of these issues in NIRB Public Hearing File No.: 08MN053, Early Revenue Phase Proposal, Transcripts: • January 27, 2014, pp. 182, 183, 235, 237, 245, 278-281 and 287-289 • January 28, 2014, p. 320 |



| | Impacts to water quality adjacent to the road associated with the use of gravel or other substances to improve traction on the road | • January 31, 2014, pp. 1005-1007, 1046, 1115 and 1117 |
|---|--|--|
| Item K 3: impacts on key habitat for fish and wildlife species, especially areas used by endangered species | Concerns regarding caribou mortality associated with both the potential for accidents involving caribou and ore trucks and increased harvesting activity along the road Potential for the road and for snow build up along the road to pose a barrier to caribou movement and to interfere with caribou calving | See for example the discussions of these issues in NIRB Public Hearing File No.: 08MN053, Early Revenue Phase Proposal, Transcripts: January 27, 2014, pp. 186-191, 194, 196, 198, 200, 201, 211, 212, 228 and 229 January 28, 2014, pp. 347, 392-394, 401 and 402 January 30, 2014, pp. 799 and 800 January 31, 2014, pp. 1049 and 1113 |

Table B-2 below summarizes the additional relevant information about the potential impacts of the transportation corridor (Shipping Route) that was provided during the NIRB's Public Hearing:

Table B-2: Relevant Information from the NIRB Public Hearing

NPC Transportation Corridor Application: Marine Shipping Route

| Section of NBRLUP Appendices | Comment | References |
|------------------------------|-------------------------------------|--------------------------------------|
| Comments relevant to | Concerns that ships passing too | See for example the discussions of |
| Appendix J: | close to Button Point may impact | these issues in NIRB Public Hearing |
| | seals that move inland in April and | File No.: 08MN053, Early Revenue |
| Item J 2: A | are particularly vulnerable to | Phase Proposal, Transcripts: |
| comparison of the | disturbance in June, July and | |
| proposed route with | August during mating/ pupping/ | • January 27, 2014, pp. 73, 75, 108, |



| Section of NBRLUP Appendices | Comment | References |
|--|---|---|
| alternative routes in terms of environmental and social factors as well as technical and cost considerations | calving and could also affect seabird colonies such as murres nesting at Button Point Concerns regarding emergency preparedness and contingency planning, as the proposed shipping route has an area that is subject to fog and also has been known to gather ice bergs The route transiting Eclipse Sound rather than Navy Board Inlet was chosen to reflect the prevailing ice conditions (significantly higher risk of multi-year ice in Navy Board Inlet) | 116-18, 120-121, 132, 256-266, 275, 277, 278, 280, 293 and 294 • January 29, 2014, pp. 575, 580-582, 608, 609, 621 and 666-669 • January 30, 2014, p. 862 • January 31, 2014, pp. 116 and 117 |
| Comments Relevant to Appendix K: Item K 1: physical and biophysical condition | The width of the proposed shipping corridor will be 3-6 nautical miles Concerns regarding the potential for deposition of soot/ash/other particulate on nearby glaciers due to air emissions associated with ships | See for example the discussions of these issues in NIRB Public Hearing File No.: 08MN053, Early Revenue Phase Proposal, Transcripts: • January 27, 2014, pp. 163 and 164 • January 30, 2014, pp. 858-862, 881 and 882 |
| Comments Relevant to Appendix K: Item K 2: minimize negative impacts on community lifestyles | Questions as to safety/warning system for Inuit harvesters when ships transiting Eclipse sound (e.g. whether a lighthouse or some kind of siren may be required to serve as a warning to people camping/boating in the area that a large ore ship is approaching) | See for example the discussions of these issues in NIRB Public Hearing File No.: 08MN053, Early Revenue Phase Proposal, Transcripts: • January 27, 2014, p. 296 • January 29, 2014, p. 654 |



| Section of NBRLUP Appendices | Comment | References |
|---|---|--|
| Comments Relevant to Appendix K: Item K 3: impacts on important fish and wildlife harvesting areas | Concerns regarding uncertainty surrounding potential effects of increased shipping on marine mammal populations and harvesting activities during critical time periods Concerns that the use of navigational aids that use sonar may impact marine wildlife Concerns regarding the potential for mortality to schools of cod or other fish caused by the propellors on the ore carriers | See for example the discussions of these issues in NIRB Public Hearing File No.: 08MN053, Early Revenue Phase Proposal, Transcripts: January 27, 2014, pp. 81, 82, 84, 85, 99, 125, 142, 143 and 152 January 28, 2014, pp. 434-437, 477 and 478 January 29, 2014, pp. 544, 545, 547, 548, 580, 581, 611, 629, 630, 632, 633, 636 and 647 January 30, 2014, pp. 758, 875, 886-888, 914 and 945 January 31, 2014, pp. 1047, 1062, 1092, 1093, 1106, 1109 and 1110 |
| Comments Relevant to Appendix K: Item K 3: impacts on key habitat for fish and wildlife species, especially areas used by endangered species | Potential for wake effects from the increased shipping to affect sea birds and shoreline habitat for marine mammals Potential for ship traffic to interfere with marine mammal (narwhal, beluga, bow head whales) migration and calving Requests to suspend shipping in certain areas (pupping/calving/denning) during times when marine mammals are particularly vulnerable to disturbance | See for example the discussions of these issues in NIRB Public Hearing File No.: 08MN053, Early Revenue Phase Proposal, Transcripts, as listed under Item K 3 in the row above and also: January 27, 2014, p. 125 January 28, 2014, p. 420 January 29, 2014, pp. 531, 537, 538 and 640 January 30, 2014, pp. 743, 834, 835, 869, 944 and 945 |



| Section of NBRLUP Appendices | Comment | References |
|--|---|---|
| | Concerns that as open water season is exactly the timing when many different species converge in the area for critical phases in their lifecycle, mating, denning, birthing, etc. and effects at these critical points could have detrimental and lasting effects on marine mammal and sea bird populations | • January 31, 2014, p. 1096 |
| Comments Relevant to Appendix K: Item K 3: Impacts to areas of high scenic, historic, cultural and historic value | Concerns regarding impacts to visitor and user experience in the National Park and proposed National Marine Conservation Area through sight and noise from project aircraft and ships | See for example the discussions of these issues in NIRB Public Hearing File No.: 08MN053, Early Revenue Phase Proposal, Transcripts: • January 29, 2014, pp. 544 and 545 |

Conclusions

The Board notes that in contrast to the joint review conducted by the NPC/NIRB in association with the original Mary River Project Proposal that involved the development of a new railway, one aspect of the current joint review involves the intensification and change in use of the existing Milne Inlet Tote Road. Consequently, in respect of this aspect of the NIRB's joint review, the information to establish the routing for the transportation corridor, the site suitability for the road and alignment of the road were not considered to be relevant considerations, as the road alignment is not subject to change. The primary issue associated with the NIRB's assessment of the transportation corridor aspect of the ERP Proposal involving the Tote Road was the nature and extent of impacts likely to result from the intensification and change in use of the Tote Road.

With respect to the marine shipping route, the Board notes that ERP Proposal involves the intensification of use of an existing shipping route (used by the Proponent since 2008, receiving a positive conformity determination by the NPC in 2008 and approved for project resupply during the



open water season under Project Certificate No.: 005) and by community resupply subject to some minor route adjustments (most notably traversing Eclipse Sound and avoiding Navy Board Inlet).

Although the Board recognizes that it remains within the NPC's jurisdiction to decide whether the information requirements of the NBRLUP have been met such that the NPC can consider BIMC's transportation corridor application, an element of the NIRB's contribution to the joint review is to provide the NPC with the NIRB's advice regarding whether the specific information required by Appendices J and K of the NBRLUP that could reasonably be expected to be provided in the NIRB's assessment of the ERP Proposal under Article 12, Part 8, Section 12.8.2 have been provided. In this regard, the NIRB can advise that it is the Board's view that the requirements of Appendix K that can be addressed by the NIRB in the assessment of the ERP Proposal as established under the joint review have been met. The NIRB notes that having reached the extent of its advice and expertise under the NPC/NIRB joint review process, the provision of this Appendix marks the conclusion of the Board's contribution to the joint NPC/NIRB review of the transportation corridors.