



**SCREENING DECISION REPORT  
NIRB FILE NO.: 12MN043**

DFO File No.: NU-12-0010  
AANDC File Nos.: 076M10001, 086H10003,  
076M15001, 076M07002

December 14, 2012

The Honourable John Duncan  
Minister of Aboriginal Affairs and Northern Development  
Government of Canada  
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The Honourable Keith Ashfield  
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*Sent via email, facsimile and regular post*

**Re: Screening Decision for MMG Resources Inc.’s “Izok Corridor Project” Project Proposal, Kitikmeot Region, NIRB File No. 12MN043**

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Dear Honourable Ministers:

As can be seen from the more detailed comments below, the Nunavut Impact Review Board (NIRB or Board) is recommending that MMG Resources Inc.’s “Izok Corridor Project” project proposal be the subject of a public review pursuant to **Section 12.4.4(b)** of the Nunavut Land Claims Agreement (NLCA).

LEGAL FRAMEWORK

Subsection 12.4.2(a) of the NLCA directs the NIRB, when screening a project, to recommend a public review when in its judgement:

- (i) the project may have significant adverse effects on the ecosystem, wildlife habitat or Inuit harvesting activities,
- (ii) the project may have significant adverse socio-economic effects on northerners,
- (iii) the project will cause significant concern, or
- (iv) the project involves technological innovations for which the effects are unknown;

Pursuant to Subsection 12.4.2(b), a review is generally not required when, in NIRB's judgement, the project is unlikely to arouse significant public concern and;

- (i) the adverse ecosystemic and socio-economic effects are not likely to be significant, or
- (ii) the project is of a type where the potential adverse effects are highly predictable and mitigable with known technology

Subsection 12.4.2(c) instructs NIRB to give greater weight to the provisions of 12.4.2(a) in determining whether a review is required or not.

#### PROCEDURAL HISTORY AND BACKGROUND

On September 4, 2012 the NIRB received MMG Resources Inc.'s (MMG or the Proponent) "Izok Corridor Project" proposal (the Project) directly from MMG. On September 5, 2012 the NIRB acknowledged receipt of MMG's proposal and noted that, as was indicated within MMG's proposal, it would await a positive conformity determination from the Nunavut Planning Commission (NPC) for the proposal as well as a referral for screening from an authorizing agency prior to the Board proceeding to screen the project proposal in accordance with Article 12, Part 4 of the NLCA. On September 26, 2012 the NIRB received a screening referral from the Kitikmeot Inuit Association (KIA) for this file. On October 26, 2012 the Board issued additional correspondence indicating that the NIRB was continuing to await a conformity determination from the NPC before commencing its screening of the proposal. On November 2, 2012 the NIRB received a positive conformity determination (North Baffin Regional Land Use Plan) from the NPC and an additional referral to screen the project proposal from Fisheries and Oceans Canada (DFO). The NIRB assigned this project proposal file number 12MN043 and commenced screening pursuant to Part 4, Article 12 of the NLCA.

All project proposal information received by the NIRB in support of the Screening for this project proposal (NIRB File No. 12MN043) is accessible from the Board's online public registry using the following link: <http://ftp.nirb.ca/01-SCREENINGS/>.

On November 9, 2012 the NIRB distributed a Notice of Screening for this project proposal to a very broad list of contacts within community organizations in Arctic Bay, Bathurst Inlet, Cambridge Bay, Gjoa Haven, Grise Fiord, Kugaaruk, Kugluktuk, Pond Inlet, Resolute Bay, Taloyoak and Yellowknife as well as to relevant federal and territorial government agencies, Inuit organizations, and additional interested parties including but not limited to, Akaitcho First Nations<sup>1</sup>, Tlicho Government<sup>2</sup>, Dene Nation, North Slave Metis Alliance, Yellowknife Dene First Nations, Dechi Laoti'I First Nations, Sahtu region<sup>3</sup>, Yukon Dene, Athabasca Denesuline

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1 Includes communities of Lutsel K'e, Dettah, Wek'eezhii.

2 Includes communities of Gameti, Whati, Wekweeti (Snare Lake), Behchoko.

3 Includes communities of Collville Lake, Deline, Fort Good Hope, Normal Wells, Tulit'a.

and various Inuvialuit organizations. The NIRB requested that interested parties review the project proposal and provide the Board with any comments or concerns by November 30, 2012 regarding:

- Whether the project proposal is likely to arouse significant public concern; and if so, why;
- Whether the project proposal is likely to cause significant adverse eco-systemic and socio-economic effects; and if so, why;
- Whether the project is of a type where the potential adverse effects are highly predictable and mitigable with known technology, (please provide any recommended mitigation measures); and,
- Any matter of importance to the Party related to the project proposal.

On November 23, 2012 the NIRB received separate requests from the Kitikmeot Inuit Association and the Athabasca Denesuline to extend the public commenting deadline. The Board found these requests to be reasonable and asked that parties provide their comments by December 7, 2012. On or before December 7, 2012 the NIRB received comments from the following interested parties (see [Appendix A](#) for complete comment submissions):

- Kitikmeot Inuit Association
- Government of Nunavut
- Government of Northwest Territories
- Aboriginal Affairs and Northern Development Canada
- Environment Canada
- Fisheries and Oceans Canada
- Natural Resources Canada
- Transport Canada
- Athabasca Denesuline Negotiation Team
- Beverly and Qamanirjuaq Caribou Management Board
- Dene Nation (Dene National Office Assembly of First Nations (NWT))
- Lutsel K'e Dene First Nation
- North Slave Métis Alliance
- Tlicho Government
- Wek'eezhii Renewable Resources Board
- Yellowknives Dene First Nation
- Canadian Arctic Resources Committee
- Canadian Parks and Wilderness Society – Northwest Territories Chapter
- MiningWatch Canada
- Wildlife Conservation Society Canada
- World Wildlife Fund – Canada

The NIRB also received 410 individual comment submissions from members of the public, the majority of which appear to have resulted from an online petition circulated by a public interest group in an effort to raise awareness of the commenting opportunity. [Appendix B](#) to this decision provides a complete listing of the names of individuals who provided comments.

MMG is an Australian base metal mining company with Canadian headquarters in Vancouver, British Columbia. MMG is a wholly owned subsidiary of Minmetals Resources Limited (Minmetals) with the majority shareholders located in Beijing, China.

The proposed project is located in the Kitikmeot region, with the proposed Izok Mine site situated approximately 260 kilometres (km) southeast of Kugluktuk; the proposed High Lake Mine site situated approximately 300 km northeast of the Izok site and 187 km southeast of Kugluktuk; and the proposed Grays Bay Port site situated approximately 328 km north of the Izok site and 179 km east of Kugluktuk. The Izok Mine site as included within the Izok Corridor Project proposal would be within approximately 3 km of the Nunavut–Northwest Territories border.

This project proposal includes the development and operation of a base metal mining and milling project with an estimated operating life of twelve years and an average production rate of approximately 2 million tonnes of ore per annum. As proposed, the mine would produce primarily zinc concentrate with some copper and a small amount of lead concentrates. The project would include the development of open pit and underground mining infrastructure at both the Izok and the High Lake mine sites, a 350 kilometre (approximate) all-season access road linking the Izok Mine and High Lake Mine, with a terminus at a proposed port facility on Grays Bay. MMG has proposed a schedule that would see site preparation activities begin in 2014, the construction phase for the development beginning in 2015, and the mine operations beginning in 2017, with mine life lasting approximately twelve years. This would be followed by two to three years of closure and reclamation activities with an additional seven years for post-closure monitoring.

MMG has indicated that it anticipates the total construction workforce to be approximately 1,140 employees and the total operation workforce to be approximately 710 employees.

The following is a *summary* of the main project activities and components associated with the proposed Izok Corridor Project:

- Development of five deposits at the Izok Mine site using open pit mining (Central, North, Northwest and South deposits) and underground mining methods (Inukshuk deposit);
- Development of three deposits at the High Lake Mine site using open pit mining (AB and D deposits) and underground mining methods (West Zone deposit);
- Facilities and site infrastructure to be developed at the **Izok Mine** site include:
  - Diversion dam and diversion channel to re-route water around Izok Lake from Iznogoudh Lake into Itchen Lake;
  - Dewatering of Izok Lake to access the deposits;
  - Processing plant to process ore from both the Izok and High Lake mines; process plant to include Run of the Mill (ROM) stockpiles, primary jaw crusher, crushed ore stockpile, mill facility with an on-site processing rate of approximately 6,000 tonnes per day of ore, floatation circuits, tailings and concentrate thickeners and filters, process water tanks, reclaim water treatment facility, and reagent storage and reagent mixing building;

- Concentrate storage facility for storage of copper, lead and zinc concentrates;
  - Storage of waste rock and overburden using sub-aerial deposition method within the former Izok Lake catchment area;
  - Storage of tailings using sub-aerial frozen deposition method (dry stack facility) within the former Izok Lake catchment area with installation of thermal protection cover at closure;
  - Transportation of concentrate products to the storage facility at Grays Bay Port via the all-season access road;
  - Explosive storage facility for the storage of explosives accessories – emulsion blasting agents to be manufactured at the High Lake facility and transported to work sites;
  - Surface water diversion system, water holding pond, effluent treatment facility, potable water treatment facility and sewage treatment facility;
  - Permanent accommodation complex with maximum capacity of approximately 700 to 800 personnel;
  - Additional site infrastructure to support the mine; including power supply, warehouse, maintenance shops, administration complexes and offices and dry facilities, and the use of waste rock for site development;
  - Water withdrawal from Itchen Lake;
  - Discharge of treated surface water, effluent, sewage and grey water into Itchen Lake;
  - Landfill within the Izok Lake catchment area;
  - Fuel tank farm facility for storage of low sulphur diesel and aviation fuel, with approximately 35 million litres (L) of low sulphur diesel and 100,000 L of aviation fuel required annually, with aviation fuel stored in 45 gallon drums on site, and ongoing transportation of diesel fuel to site from bulk fuel storage at Grays Bay port;
  - Use of existing airstrip at Ham Lake camp or another airstrip near Ham Lake that is proposed to be developed as part of the pre-development activities;
- Facilities and site infrastructure to be developed at the **High Lake** Mine site include:
    - Primary crusher to crush High Lake mine ore;
    - Ore stockpiles;
    - Transportation of crushed ore to the Izok Mine site for processing via the all-season access road;
    - Storage of waste rock and overburden using the sub-aerial deposition method immediately to the west of High Lake;
    - Explosive storage and manufacturing facilities – emulsion blasting agents to be manufactured at the High Lake facility and transported to work sites;
    - Surface water diversion systems, water holding pond, effluent treatment facility, potable water treatment facility and sewage treatment facility;
    - Permanent accommodation complex with maximum capacity of approximately 200 to 250 personnel;
    - Additional site infrastructure to support the mine; including power supply, warehouse, maintenance shops, administration complexes and offices and dry facilities, and the use of waste rock for site development;

- Water withdrawal from lakes 4, 5 and 15;
  - Discharge of treated contact water into either the Kennarctic River or High Lake, and discharge of treated sewage and grey water into the Kennarctic River;
  - Landfill within the High Lake catchment area;
  - Fuel tank farm facility for storage of low sulphur diesel and aviation fuel, with approximately 7 million L of low sulphur diesel and 50,000 L of aviation fuel required annually, with aviation fuel stored in 45 gallon drums on site, and ongoing transportation of diesel fuel to site from bulk fuel storage at Grays Bay port;
  - Use of existing airstrip at Sand Lake or development of another airstrip near High Lake with associated airport facilities;
- Facilities and site infrastructure to be developed at **Grays Bay** on the Coronation Gulf include:
    - Port facility with dock to accommodate 50,000 deadweight tonnage (DWT) bulk-carrier ships;
    - Concentrate storage facility for copper, lead and zinc concentrates with capacity to store 10 months of concentrate product;
    - Fuel storage facilities with storage capacity of approximately 50 million L diesel fuel and plan to ship fuel via truck haul to Izok and High Lake Mine sites;
    - Storage facility to store explosive and blasting materials;
    - Water supply and desalination plant, water holding pond, refuse disposal and sewage treatment facilities;
    - Permanent accommodation complex with maximum capacity of approximately 25 to 40 personnel;
    - Additional site infrastructure to support the port facility; including power supply, port operation and administration offices, warehouse and laydown areas, dock and ship loader facility;
    - Discharge of treated sewage and grey water to marine environment;
    - Use of airstrip at Grays Bay that is proposed to be developed as part of the pre-development activities;

Additional components and activities associated with the Izok Corridor proposal include:

- Construction of incineration plants at the Izok Mine, High Lake Mine and Grays Bay Port sites for the incineration of combustible solid waste, domestic garbage and waste oil;
- Transportation and storage of chemicals and hazardous wastes;
- Seasonal use of temporary winter road from the proposed Izok Mine to the existing Tibbitt-Contwoyto Ice Road near the Lupin Mine or Jericho Mine to bring in construction materials and equipment from Yellowknife until the all-season road has been constructed;
- Seasonal use of temporary winter road from the proposed High Lake Mine to Grays Bay to bring in construction materials and equipment for the construction of the High Lake Mine and to facilitate the construction of the all-season access road;
- Construction of site roads to link facilities within each site using quarried and waste rock;
- Construction of an approximately 350 km all-season access road linking the Izok and High Lake mines with the port at Grays Bay. Road to include approximately 60 single-span bridges, 10 multi-span bridge structures and 80 major culvert and rock fill locations;

- Development and extraction of granular resources along the proposed access road;
- Marine shipment of fuel, concentrate and supplies during ice-free months through the west and east of the Northwest Passage for a total of 16 round trips during peak production (total of 5 ships estimated to be required during peak production years). No ice-breaking is planned of continuous land fast ice; and
- Decommissioning and reclamation activities.

Within its project proposal, MMG has expressed its expectation that the results of the NIRB's Screening for the Project would lead to a decision that the Project be reviewed pursuant to Section 12.5 of the NLCA. Further, in submitting a Type A water licence application to the Nunavut Water Board (NWB), MMG has indicated its interest in undertaking a coordinated NIRB-NWB process, should the Project be referred to Review. Lastly, MMG has also indicated within its project proposal that it would intend to apply to the NIRB for an exception to the Review process pursuant to Section 12.10.2(b) of the NLCA, to allow authorizations for certain project activities to be issued prior to the completion of any future Review.

#### COMMENTS AND CONCERNS

During the public commenting period for this file, a large volume of comment submissions were received by the NIRB for its consideration. All comment submissions received by the Board have been posted online at the public registry for this file and can be accessed using the following link: <http://ftp.nirb.ca/01-SCREENINGS/>.

The vast majority of comments received indicated that, due to the nature and scale of the proposed activities and associated project components, the proposed project may cause significant adverse effects on the ecosystem and on surrounding wildlife habitat and further, that there may be significant adverse socio-economic effects on northerners. On this basis, in addition to expressing concern regarding potential project effects, a significant majority of the submissions also suggested that the Board consider recommending this project be subject to a Review under either Part 5 or Part 6 of Article 12 of the NLCA.

The following represents a *summary* of the comments and concerns received during the public commenting period for this file; please note that the original comment submissions have been included in their entirety in [Appendix A](#):

#### **Kitikmeot Inuit Association (KIA):**

- Although supportive of further development of the Izok and High Lake properties, notes that MMG's project proposal does have significant impact potential.
- Identifies the following bases for concern: hydrogeology, air and water quality as it relates to the project's mine and mineral waste management; water consumption; impacts on fisheries, wildlife and their habitats; closure and reclamation management; and traditional knowledge.
- Anticipates the project will have eco-systemic impacts on wildlife, fisheries and their habitats, and may also cause some socio-economic effects such as: possible reductions and/or disruptions in harvesting opportunities for hunters and trappers; and the potential for some societal problems. With respect to positive effects, anticipates increased

employment and training opportunities for Kitikmeot Inuit and improved infrastructure in the Kitikmeot region resulting in improved economic activities in the region.

- Anticipates land impacts associated with mine and mineral waste management, air and water quality, engineering, and fish and wildlife habitat, although expressing the view that these effects are predictable and mitigable with known technologies, and with appropriate planning and management.
- If the project is subject to review, the KIA is supportive of a coordinated review process as requested by MMG.
- Indicated that KIA will have capacity challenges in addressing technical review requirements within the regulatory timeframes and as result may need to “regularly request regulatory extensions”.
- Indicate Article 12, Part 5 Review will allow for a more thorough assessment of the effects of the project, on both the ecosystems and socio-economic factors.

#### **Government of Nunavut (GN):**

- Believes that the project could have significant effects on the wildlife, wildlife habitat, socio-economics of Nunavut, and heritage resources and will likely have the most impact in the Nunavut Settlement Area (NSA) and may cause significant public concern.
- Recommends that the NIRB require the project be subject to review as set out under Part 5 of Article 12 of the NLCA.

#### **Government of Northwest Territories (GNWT):**

- GNWT identified four subject areas of potential impact and concern: impacts on Aboriginal harvesting rights; impacts on Bathurst barren-ground caribou and calving grounds; impacts on other wildlife, such as grizzly bears and wolverines; and concerns regarding cumulative effects on valued ecosystem components due to overall project development and required road.
- Primary concern that due to the location of the Izok corridor all-weather road there will be displacement of Bathurst barren-ground caribou herd from preferred areas of calving which may have adverse effects including poorer calf survival.
- Express concern about cumulative effects with respect to contribution of this project to both the amount of disturbance already on the landscape within the range of the Bathurst caribou, but also in the context of future developments proposed for the Slave Geological Province. Particularly concerned that the recovery of the caribou herd may be delayed necessitating extensions on harvest restrictions in the NWT, resulting in continued hardship.
- Also concerns about impacts on other wildlife (i.e., grizzly bears, wolverines and local polar bear subpopulations) both from the mine and from cumulative effects, such as increased mortality along the road and reduced habitats associated with the all-weather road.
- Concern with the current route of the Izok Corridor all-weather road and ask MMG to consider revising route so the corridor remains outside the Bathurst herd’s calving area. Suggest a flexible approach to seasonal protection measures for caribou and willingness to work to define an area of avoidance around the calving ground.
- The GNWT requests the project undergo a review pursuant to Part 6 of Article 12 of the NLCA as a result of the possible impacts to people and wildlife in NWT.

### **Aboriginal Affairs and Northern Development Canada (AANDC):**

- Due to the nature and scale of the proposed project's activities and components having potential to cause significant adverse environmental impacts and socio-economic effects on northerners, AANDC recommended that a review be required under Article 12, Section 12.4.2 of the Nunavut Land Claims Agreement (NLCA);
- AANDC noted that the following areas merit more in-depth assessment:
  - Anticipated impacts of construction, operation and closure activities on wildlife, water quality and quantity, vegetation, landforms and permafrost features in the area;
  - Anticipated socio-economic impacts throughout the project life;
  - Impacts of potential accidents or malfunctions on site and during transportation.
  - Potential adverse impacts on the surrounding environment of proposed development activities, including but not limited to open pit and underground mining, waste rock and ore storage areas, tailings management, Izok Lake dewatering and associated site water management, Grays Bay Port facilities, proposed shipping routes, and the Izok all-weather road;
  - Potential impacts to the groundwater regime and provisions for management and potential contamination of groundwater;
  - Potential for ongoing and incremental land use activities associated with this and other mining and transportation activity in the Kitikmeot region to result in cumulative ecosystemic and socio-economic impacts;
  - Potential transboundary impacts, given the proximity to the Northwest Territories border; and
  - Adequacy of proposed mitigation, monitoring, and adaptive management measures.
- AANDC has Ministerial responsibilities for the approval of the water licence and administration of Crown land and expects to offer expertise in several areas.

### **Environment Canada (EC):**

- Based upon the scale of the proposed project and the anticipated environmental impacts that may occur, EC believes that the proposed project has the potential to cause significant adverse effects on the ecosystem and wildlife habitat if allowed to proceed.
- Potentially impacted ecosystem components falling under EC's mandate include:
  - Surface freshwater as a result of lake dewatering, nutrient input from blasting and sewage treatment, suspended sediments as a result of construction activities, surface runoff from ore and waste rock, and accidents and malfunctions;
  - Air quality as a result of the operation of the incinerator, mine site activities, equipment and supplies along winter and all-weather roads and marine shipping;
  - Migratory birds as a result of habitat loss and disturbance at proposed site facilities and roads; and
  - Species at risk as a result of habitat loss and disturbance at proposed site facilities and roads.
- Indicates the project should be referred to a review under Article 12, Section 12.4.4(b) of the NLCA due to the potentially significant adverse impacts to these ecosystem components resulting from the proposed project.

### **Fisheries and Oceans Canada (DFO):**

- DFO determined that the development of the Izok Project may cause harmful alteration, disruption or destruction to fish and fish habitat and may require an authorization under subsection 35(2) of the *Fisheries Act*.
- DFO indicated that the mine may result in some impacts to fish and fish habitat including:
  - Whole lake loss due to the dewatering of Izok Lake to access the underlying deposit;
  - Construction, operation and closure of a diversion dam and diversion channel to re-route water around the Izok Lake from Iznogoudh Lake into Itchen Lake;
  - Construction, operation and closure of a marine port facility at Gray's Bay, as well as a large infilling of the bay in the conceptual plan;
  - Potential impacts to marine mammals from blasting, dredging and shipping at Gray's Bay marine port facility;
  - Potential for impacts to Itchen Lake as a receiving waterbody during the drainage of Izok Lake; and
  - Construction, operation and closure of an all-weather access road with several watercourse crossings.
- DFO suggests that, as there is potential for the Izok Project to cause significant adverse environmental impacts to fish and fish habitat, the NIRB consider recommending the project for review under Section 12.4.4(b) of the NLCA.

### **Natural Resources Canada (NRCan):**

- NRCan likely to have regulatory jurisdiction for the proposed project relating to the manufacture and/or storage of explosives pursuant to the *Explosives Act*.
- Project proposal has the potential to result in significant adverse environmental effects and on this basis recommends that the Izok Corridor Project be referred to review under Section 12.4.4 (b) of the NLCA.
- NRCan would be in a position to provide further advice to the NIRB should the project proposal be referred for further review.

### **Transport Canada (TC):**

- TC provided comments with respect to its own interests and mandate. They are as follows:
  - Navigable Waters Protection Program regarding diversion activities, dewatering activities, storage of waste rock and overburden, water withdrawal, discharge of treated water, transportation of crushed rock along the all-season access road, port facility, construction of the all-season road, and any further activities proposed in relation to navigable waters which would require approvals under Section 5 of the current *Navigable Waters Protection Act*, as well as a potential Section 23 Order in Council.
  - Transport Canada Marine Safety: commercial vessels will already be certified for domestic and/or international trade and the contracted shipping company must already be cognizant and compliant with applicable legislation.

Marine Safety recommends that bathymetric surveys be conducted to establish a safe navigation corridor and to have this information shared with Canadian Hydrographic Services to update the chart editions.

The bulk fuel storage at Grays Bay will be a prescribed Oil Handling Facility (OHF) and be subject to Transport Canada OHF regulations.

Loading process at Grays Bay will be subject to Port Warden services prescribed Sections 119 and 120 of the Cargo, Fumigation and Tackle Regulations and associated fees.

Marine Safety does not have the authority to comment on how the project's marine transportation components will affect eco-systemic and socio-economic effects but does not believe that the marine transportation components will have any potential adverse effects that would require mitigation or to likely arouse significant public concern.

- Transportation of Dangerous Goods fall under the *Transportation of Dangerous Goods Regulations* and pursuant to Section 7 of the *Transportation of Dangerous Goods Act, 1992*, persons must have an approved Emergency Response Assistance Plan in place before transport or import of certain dangerous goods;
  - Civil Aviation suggest that the proponent register the existing aerodromes at Ham Lake camp and Sand Lake. Any upgrades or developments of proposed airstrips should be constructed in accordance with TP 312 Aerodrome Standards and Recommended Practices and the guidance provided in TP 1247 Land Use in the Vicinity of Airports should be considered when locating the landfill sites.
- TC noted that the proposed project may cause significant adverse effects to the ecosystem encompassing water bodies or watercourse crossings and could arouse significant public concern.

#### **Athabasca Denesuline Negotiation Team (AD):**

- Express concern that the project proposal may have the potential to have major impacts to barren-ground caribou, AD's traditional activities and culture.
- AD indicated that the Bathurst caribou herd range historically extended into northern Saskatchewan for winter feeding making it an integral part of the AD economic, social and cultural identity, consequently the AD and northern Saskatchewan must be included in any assessment of transboundary and cumulative effects of this potential development related to the migration routes and ranges of the barren-ground caribou.
- The AD request a full review of transboundary and cumulative impacts within their traditional territory and jurisdiction, through an Article 12, Part 6 panel review.
- Express concern regarding the proposed all-season road as it intersects the heart of the Bathurst barren-ground caribou calving ground, its habitat and migration route and indicate there should be no disturbance or development within or near to calving grounds (especially with noted declines in the Bathurst, Ahiak and Beverly herds). MMG should be required to consider the option of not putting the road through the calving ground.
- Noted that there are caribou quotas currently in place to aid in the recovery of the herd, and that, recognizing the sacrifice that quotas impose on communities, AD cannot support a development that run contrary to recovery efforts.

#### **Beverly and Qamanirjuaq Caribou Management Board (BQCMB):**

- Expressed concerns about the development on calving grounds and the impacts the project proposal might have on other calving grounds including:

- Activities that would occur on important habitats used by Bathurst caribou during sensitive periods (calving and post-calving);
  - The project may affect other current or future project proposals for other calving grounds;
  - Suggests that the Precautionary Principle be applied when making decisions about human activities that would cause significant disturbance to caribou and their habitat at sensitive times.
- Concerns regarding the potential impacts of development on Bathurst caribou and indicate that data suggests although the herd may be stable; surveys indicate that there have been two poor years for calf production and survival.
  - Expressed concerns the project may affect the availability of Bathurst caribou for harvest in some communities as well as increase harvesting pressure on Beverly and Qamanirjuaq herds.
  - Identified concerns regarding cumulative transboundary effects, noting that the review of cumulative and transboundary effects in this case sets the precedent for other current and future development proposals and that there is a lack of cumulative effects assessment and finalized land use plans in this region.
  - Recommends MMG's application should be rejected on the basis that no further exploration or development activities should be permitted on Bathurst caribou calving grounds and post-calving range and that MMG be asked to develop a new project proposal that does not include a road across the Bathurst calving and post-calving areas.
  - Recommends that an Article 12, Part 6 Review be conducted by a federal panel, such review to include: an assessment of transportation alternatives; an assessment of cumulative effects for the Bathurst caribou herd in NU and the NWT as well as SK if there is continued or worsening reduction in caribou availability; and a full public discussion of concerns and potential impacts associated with changes to availability of Bathurst caribou.
  - Recommend work amongst all relevant agencies, communities, etc. to develop a plan and process for identifying and mitigating the potential cumulative effects of human land use activities on barren-ground caribou (Bathurst, Beverly and Qamanirjuaq herds).

**Dene Nation (Dene National Office Assembly of First Nations (NWT)):**

- Noted that Bathurst caribou herd migrates between the NWT and Nunavut border with no distinction between jurisdictions and express concern regarding the project because it may threaten a sacred caribou calving ground area that has significant social and cultural importance to the Dene Nation. Consequently, the Dene Nation is opposed to the project on the basis of its location and the direct impacts on calving ground areas, which should be protected and remain undisturbed. Express concerns that impacts to wildlife and the tundra would cause irreversible, life changing damage and the Dene Nation would receive no associated benefit.
- Noted that some sensitive wildlife species may be at risk due to the project, including Bathurst Caribou herd, Grizzly Bear, Wolverine, Peregrine Falcons and Short-eared Owl.
- Recommend that the project be rejected as it would impact treaty 8 and 11 territories which have distinct connection to the Bathurst caribou calving ground. However, if the project is not rejected than recommends the NIRB conducts a thorough environmental assessment and stressed that the Dene Nation needs to receive advance notice about

proposed mining projects and be involved in environmental assessments of projects impacting their territory.

**Lutsel K'e Dene First Nation:**

- Concerns regarding wildlife and their habitat, traditional uses of land, the Dene people's ability to harvest the Bathurst caribou, the increased access to a sensitive area and cumulative effects.
- Express concern about the potential for the project, specifically the all-season road, to impact the calving grounds and populations of caribou available for harvest by the Lutsel K'e Dene. Further expressed concern that the harvest of the Ahiak and Beverly herds will increase with the decline of the Bathurst herd and that hunting rights and harvesting rights will be in jeopardy if the project is allowed to proceed.
- Indicated that any impact to the calving grounds is a significant public and environmental concern for the Lutsel K'e Dene.
- Indicate that the project should be rejected as any impacts to caribou, which are vital to the Lutsel K'e Dene are not acceptable and development in the calving grounds should not be allowed. If not rejected, suggest that MMG be required to consider alternatives to the proposed all-season road.
- On the basis of transboundary impacts to caribou, recommend Article 12, Part 6 review including parties from Nunavut, NWT and Saskatchewan.

**North Slave Métis Alliance:**

- Concerns regarding closure standards, water quality, terrain, air quality, wildlife and their habitat, birds and their habitat, fish and their habitat, heritage resources in the area, traditional uses of land, Métis harvesting activities, community involvement and consultation and human health issues. Specifically noted concerns regarding Aboriginal Human Rights (request compliance with Chapter 9, Tri-Council Policy) to be involved in decisions regarding development of resources within traditional territory.
- Noted that proposed Izok mine is within the traditional territory of the Indigenous North Slave Métis community, as are the southern portions of the proposed Izok road with the entire Izok road as proposed passing through the range of the Bathurst Caribou herd.
- Express concerns that the project could affect migration of caribou herd (for example changes observed in the Lac de Gras area). Concern that data from wildlife monitoring programs at existing mines indicate a larger than expected zone of influence. Note that traditional knowledge indicates that low air quality could also be affecting caribou.
- Express concern that the proposed all-weather road would significantly increase the likelihood of additional cumulative effects in the entire region.
- Indicated that the project deserves the highest possible level of environmental assessment, which includes thorough and comprehensive baseline data and impact assessment on transboundary effects due to the effects on numerous species of wildlife and on people who harvest and value wildlife; Aboriginal Human Rights; and cumulative effects.

**Tlicho Government:**

- Concerns regarding water quality, terrain, air quality, wildlife and their habitat, birds and their habitat, heritage resources in the area, traditional uses of land and treaty rights, and human health.
- Express that a major concern is the potential for impacts on caribou such as impacts on the caribou calving grounds, potential impacts of noise and activity that could stress the caribou, potential loss of habitat, potential air quality impacts, and deposition of dust and debris on the food source for caribou from the proposed development..
- Noted that the Bathurst herd has been in a significant decline since 1986. Identify that the barren-ground caribou are an important cultural keystone species to the Tlicho and the continued existence and availability for harvesting is of critical importance to the Tlicho. Note that the decline of the caribou and harvest restrictions imposed on the Tlicho and Yellowknives Dene First Nation (YKDFN) have led to challenges and sacrifices for these communities and that with the predicted duration of effects of 20+ years for this proposal, any incremental and cumulative impact to Bathurst caribou may be socially unacceptable to Tlicho people.
- Noted the project is located in the range of several species of concern such as Peregrine Falcon, Wolverine, Grizzly Bear and Short Eared Owl, and indicated that mitigation must be in place to ensure minimal impact to these species.
- Also expressed concern regarding the impact on water and the aquatic life that would be downstream from the proposed project. Noted that the water from the Izok site flows into the traditional territory of the Tlicho.
- Raised concern regarding the potential impacts on heritage resources. Noted that there may be burial sites in the area.
- Request that alternatives to siting the road through the calving grounds of the Bathurst caribou herd must be considered by the Proponent.
- Recommends an Article 12, Part 6 Review be undertaken of the proposed project and that because the project may affect traditional territory, a Tlicho member be included on the panel for this review.

**Wek'èezhì Renewable Resources Board (WRRB):**

- Noted that the proposed Izok Corridor Project is located within the range of several species that are of particular management concern, including peregrine falcons, grizzly bear, wolverines, short-eared owls and Bathurst caribou.
- Noted that the project will be the first of its kind in Nunavut and will have transboundary effects into the NWT through its impact on migratory species such as grizzly bear, wolverine and barren-ground caribou and through its impact on harvesting opportunities that may be influenced by changes in wildlife abundance and distribution. Consequently, the WRRB recommends an Article 12, Part 6 Review be undertaken to adequately assess the potential for project specific effects and cumulative effects of this project on the wildlife of importance in this region and how it may affect wildlife that is transboundary.

**Yellowknives Dene First Nation (YKDFN):**

- Concerns regarding the terrain, wildlife and their habitat, traditional uses of the land, community involvement and consultation, closure objectives and long term impacts.
- Noted that the YKDFN is dependent on the Bathurst Caribou Herd and that project facilities are occurring adjacent and directly within the core calving grounds. Noted that

to support population recovery, limits on harvest have been put in place, leading to hardship amongst YKDFN, and there is great concern impacts on the post calving and winter ranges will lead to permanent and irrevocable collapse of the caribou.

- Noted that the YKDFN will remain steadfastly opposed to this project until the company is able to demonstrate that the impacts to this herd can be successfully mitigated.
- On this basis, YKDFN recommends that the application be outright rejected. However, if not rejected, the project must be referred to the highest level of public review an Article 12, Part 6 review.

#### **Canadian Arctic Resources Committee (CARC):**

- Provided maps that summarized the current activity in the Slave Geological Province, Cumulative Effects modelling of existing activities in 2003 in the region, Bathurst Caribou Herd Crossings and Barren-Ground Grizzly Bear Crossings of the Proposed Bathurst Inlet Road and Port project, and a figure that illustrates the vulnerability of the calving grounds of the Bathurst herd to the proposed road in the Izok Corridor and BIPAR. Noted that the maps need to be updated but present the development challenges facing the Bathurst caribou and for the Assiniboine, Dene, Métis and Inuit that depend upon this herd as a food source.
- Raised three issues associated with the Izok Corridor project:
  - Bathurst caribou is in a recovery phase but the disturbance caused by roads through the calving ground would not help the herd recover.
  - The impact of the Izok Corridor Project proposal would go beyond the boundaries of Nunavut as the proposal may present a national transboundary issue for people in the NWT, Nunavut and Saskatchewan that depend upon the caribou as a food source.
  - This is the third road being proposed in the Slave Geological Province; the others are 1) the Bathurst Inlet Port and Road proposed by Sabina for the Back River proposal and 2) road by AREVA for the Kiggavik uranium proposal. All three roads would affect the traditional range of the Bathurst caribou herd.
- CARC recommend that both the Izok Corridor proposal and the Back River proposal be combined into an Article 12, Part 6 review to examine the impact on the Bathurst and associated caribou herds and the user groups across the respective borders.
- Further recommend the completion of a transportation assessment for the Slave Geological Province to examine the road and winter road systems, and port requirement that would access BIPAR, the Kiggavik Uranium Mine and the Izok Corridor proposal and further the interests of the people of Nunavut without impact on the Bathurst herd.
- CARC indicated that it is imperative the NIRB complete a transportation study for the Slave Geological Province before any further resource development proposals are considered.

#### **Canadian Parks and Wilderness Society – Northwest Territories Chapter (CPAWS-NWT):**

- CPAWS-NWT noted that proposed Izok corridor project would be an issue of significant public concern and that the potential impacts of the project on Bathurst caribou are likely to cause significant adverse eco-systemic and socio-economic effects that extend far beyond its proposed physical footprint in Nunavut into the NWT and other adjacent regions.

- Express concern that the proposal would threaten the livelihood of communities in Nunavut and the NWT, and increase the likelihood that the Bathurst herd will continue to have harvest limits for Aboriginal hunters and may never again be harvested by resident NWT hunters or be a reliable resource for tourism operators.
- Noted that regional cumulative impacts should be considered in this project review as the proposed mine and road add to a growing list of existing and proposed developments in the Slave Geological Province of Nunavut and the NWT that would impact the water, caribou and other species such as grizzly bear, wolves and wolverine.
- Request the NIRB consider the potential that the Izok road and port would open the region to further developments, leading to impacts to terrestrial and marine environments across the north.
- Indicate they do not support the project as the development of a road through the Bathurst caribou calving grounds is unacceptable and an alternative must be presented, and the project's potential adverse effects are not predictable as the geographical scope of ecological and socioeconomic impacts is without precedent and cumulative effects must be considered.
- Recommend the project be subject to an Article 12, Part 6 review under the NLCA on the basis of the ecological and socioeconomic repercussions of this project, particularly in regards to Bathurst caribou, which must be considered a transboundary issue.

#### **MiningWatch Canada:**

- Based on the scale, complexity, potential for significant effects, potential transboundary effects to the “precarious population health” of the Bathurst caribou herd, which ranges well beyond Nunavut into the NWT and Saskatchewan, the serious public concerns about the project expressed by the Yellowknives Dene, Athabasca Denesuline, and Tlicho First Nations, MiningWatch Canada supports the call for a review of the proposed project by a federal environmental assessment panel under Part 6 of Article 12 of the NLCA.
- Identify that the provision of adequate participant funding for Indigenous groups and interested stakeholders will be necessary to meaningfully engage in the review.
- Indicate the review should include an assessment of alternative options for development that avoid the construction of a permanent road through the calving grounds of the Bathurst Caribou.

#### **Wildlife Conservation Society Canada – Ontario and Yukon (WCSC):**

- Concerns regarding water quality, air quality, wildlife and their habitat, fish and their habitat, traditional uses of land, Inuit harvesting activities, community involvement and consultation, local development in the area, tourism in the area, Dene harvesting activities, and cumulative effects.
- Noted that caribou deserve particular attention when looking at the potential negative impacts from the Izok Corridor proposal on the Bathurst Caribou herd’s core calving area and concerns regarding additional mortality and stresses associated with various components of the proposed project and the potential for these impacts to result in further hardship for harvesters sharing the range and relying upon the caribou as a resource.
- Noted significant potential for negative impacts to aquatic habitats.
- Concerned that the routing of an all-season road through fragile tundra habitats in a changing climate would precipitate permanent changes to the character, ecology and

social environment of the larger region and may lead to further mineral development and cumulative impacts to a number of valued ecosystem components over time.

- Reflecting the length and location of the road, the expectation that potential impacts would extend beyond Nunavut into NWT and possibly Saskatchewan; and the high likelihood that the project would stimulate additional development, recommend that the project be subject to an Article 12, Part 6 Review conducted by a Federal Panel to assess project-level and cumulative impacts.
- Also recommend that the NIRB immediately reject MMG's anticipated application to the NIRB to exempt specified activities from being required to undergo review, on the basis that such applications are premature, and the proponent should not seek approval of related activities before the review process is complete.
- Recommend providing dedicated funding to communities to ensure they have the capacity to participate fully in the review process.
- Recommend NIRB provide a formal and explicit opportunity within the impact review process for selected independent scientists to evaluate associated documentation.
- Recommend the road through the core of the Bathurst herd's calving grounds be rejected as calving grounds should be considered no-go areas for development. MMG should be required to propose a road routing that completely avoids the calving ground.

#### **World Wildlife Fund – Canada (WWF):**

- Concerns in relation to wildlife and their habitat, traditional uses of the land, Inuit harvesting activities, and community involvement and consultation.
- Noted that the proposed Izok road would pass through the core calving area of the Bathurst caribou herd which has experienced a 90% decline since the 1990s. Further indicated that other mining companies have agreed not to conduct any operations, including exploration, in any barren-ground caribou calving areas in Nunavut and the NWT.
- Currently completing a Circum-arctic assessment of the status of calving areas, along with options for their management which the WWG would be willing to share with the NIRB.
- Noted that the Bathurst herd is of great importance not just to Inuit harvesters in Nunavut, but to Dene hunters in the NWT and consequently impacts on the calving area for this herd affect those outside Nunavut (reference the 2008 book *Caribou and the North: A Shared Future*, which documents the barren-ground caribou).
- Note that the significant public concern regarding protecting calving areas is indicative that this issue has repeatedly been identified as the number one conservation priority by a number of parties over the last ten years and has led to reducing the harvesting of the Bathurst herd by harvesters in NWT leading to expectation that other parties (i.e. Nunavut and companies such as MMG) will also take steps to conserve this herd.
- Recommend that the NIRB reject any request for an exemption to future environmental review of this project; and that the entire project be subject to an Article 12, Part 6 Review, given its transboundary implications and precedent-setting significance in terms of considering industrial development in a caribou calving area.
- Further suggest that intervener funding be made available to harvesters in Nunavut and NWT to participate fully in any review; and that WWF be recorded as an interested party and be kept informed of progress as this project is assessed.

### **Public Comments:**

The NIRB received 410 individual comment submissions by e-mail. The following provides a summary of the comments and concerns raised:

- Concerns expressed that due to impacts to Bathurst Caribou herds and other caribou herd the proposed project would affect the traditional way of life of Aboriginal groups, harvesting of caribou and livelihood of Aboriginal groups.
- Some concerns requested consideration to possible project alternatives to reduce impacts to the Bathurst herds, e.g. *project location be re-evaluated, alternative plans which would have less impact on the communities, environment and wildlife be considered, etc.*
- Concerns identified about the potential transboundary and cumulative effects of the project, especially effects on the environment, caribou and other wildlife from the proposed project and specifically from the potential impacts from the Izok road.
- Concerns regarding the potential impacts from the project proposal on caribou and their calving grounds. Some comments reference that the Bathurst caribou population has declined by 90% in the last two decades.
- Concerns that the environment, the caribou and caribou calving grounds would not be protected with the proposed project and many of the requests from the public were asking for a rigorous environmental assessment.
- Several public comments focussed on four specific points:
  - Caribou calving grounds must be protected from development as it would impact caribou at a critical stage of their life cycle and threatens their likelihood of survival to adulthood;
  - The project should be subject to the most rigorous environmental assessment possible given the potential impacts to wildlife and communities in Nunavut and NWT;
  - Transboundary and cumulative impacts must be assessed comprehensively; and
  - Project alternatives with significantly reduced potential impacts on the Bathurst herd must be seriously evaluated and considered.
- The vast majority of comment submissions indicated that due to the potential impacts to the caribou and the environment they were not in favour of the project being allowed to proceed, however, one public member was in favour of the project as it was noted that the proposed project would provide employment to the communities.
- Lastly, the NIRB notes that 41 of the public submissions received did not contain specific comments, providing only an email indicating an individual's name.

### ASSESSMENT OF THE PROJECT PROPOSAL IN ACCORDANCE WITH NLCA 12.4.2

As noted previously under the description of the legal framework, Subsection 12.4.2(a) of the NLCA directs the NIRB, when screening a project, to recommend a public review when in its judgement:

- (i) the project may have significant adverse effects on the ecosystem, wildlife habitat or Inuit harvesting activities,
- (ii) the project may have significant adverse socio-economic effects on northerners,
- (iii) the project will cause significant concern, or

- (iv) the project involves technological innovations for which the effects are unknown.

Pursuant to Subsection 12.4.2(b), a review is generally not required when, in NIRB's judgement, the project is unlikely to arouse significant public concern and;

- (i) the adverse ecosystemic and socio-economic effects are not likely to be significant, or
- (ii) the project is of a type where the potential adverse effects are highly predictable and mitigable with known technology

Subsection 12.4.2(c) instructs NIRB to give greater weight to the provisions of 12.4.2 (a) in determining whether a review is required or not.

In determining whether or not a public review of this project proposal is necessary, the NIRB considered a number of factors, in addition to soliciting and reviewing comments received from responsible government departments, Inuit organizations, Akaitcho First Nations, Tlicho Government, Dene Nation, North Slave Metis Alliance, Yellowknives Dene First Nations, Dechi Laoti'I First Nations, Sahtu region, Yukon Dene, Athabasca Denesuline and Inuvialuit organizations and interested parties. Upon completion of the Board's Screening assessment and consistent with the criteria as stated in 12.4.2 (a) of the NLCA, the NIRB has determined, based on the size, location and nature of the proposed Izok Corridor project, that:

1. The project may have significant adverse effects on the ecosystem, wildlife habitat or Inuit harvesting activities;
2. The project may have significant adverse socio-economic effects on Northerners;
3. The project will cause significant public concern; and
4. The project involves technological innovations for which the effects are unknown.

1) The project may have significant adverse effects on the ecosystem - 12.4.2(a) (i):

The NIRB, various commenting parties and the Proponent have identified a number of potentially significant adverse effects that could be associated with this project. In the NIRB's view there is potential for the project to have significant adverse effects on several species of wildlife including caribou, grizzly bears, wolverines, peregrine falcons and short-eared owls and adverse effects on wildlife habitat and particularly habitat used for calving by sensitive populations of caribou. In addition, there is potential for the project to have significant adverse effects on fish and fish habitat.

A selection of relevant comments identifying these potential significant adverse effects is listed below:

"The KIA expects that the development of the ICP [Izok Corridor Project] will result in some eco-systemic impacts on wildlife, fisheries and their habitats." – *Kitikmeot Inuit Association*

"The GN believes that this project could have significant effects on the wildlife, wildlife habitat, socio-economics of Nunavut, and heritage resources and will likely have the most

impact in the Nunavut Settlement Area (NSA) and may cause significant public concern.” – *Government of Nunavut*

“GNWT has concerns about the effect of the proposed project on barren-ground caribou, both in terms of the proposed route of the Izok corridor all-weather road and how the entire Project contributes to cumulative effects within the Bathurst range. ... The location of the proposed development is a source of concern. Both the Izok Mine site and the High Lake Mine site, as well as the route of the Izok corridor all-weather road, occur either near to or on the Bathurst calving ground. – *Government of Northwest Territories*

“AANDC has reviewed the project proposal and is of the opinion that due to the nature and scale of the proposed project’s activities and components having potential to cause significant adverse environmental impacts ... a review is required under 12.4.2 of the Nunavut Land Claims Agreement.” – *Aboriginal Affairs and Northern Development Canada*

“After reviewing the project proposal and supporting documents, Environment Canada (EC) is of the opinion that the proposed project may cause significant adverse effects on the ecosystem and wildlife habitat.” – *Environment Canada*

“...it was determined by DFO that the development of the Izok Project may cause harmful alteration, disruption or destruction to fish and fish habitat...DFO is of the opinion that there is potential for the Izok Project to cause significant adverse effects on fish and fish habitat.” – *Fisheries and Oceans Canada*

“Based on NRCan’s review of the project information and our expertise...[*the Izok proposal*] has the potential to result in significant adverse environmental effects.” – *Natural Resources Canada*

“Based upon the proposed project scale, Transport Canada is of the opinion that the proposed project may cause significant adverse effects to the ecosystem encompassing water bodies or watercourse crossings...” – *Transport Canada*

“There are potentially serious implications of this proposed project and its cumulative and trans-boundary effects for both caribou and people.” – *Beverly and Qamanirjuaq Caribou Management Board*

“The Athabasca Denesuline (AD) have reviewed the proposal and have some significant issues as it has the potential to have major impacts to barenground caribou, our traditional activities and culture.” – *Athabasca Denesuline*

“The Lutsel K’e Dene First Nation is concerned about the potential for this development, specifically the road through the calving grounds of the Bathurst caribou, to impact the populations of caribou available for harvest by the Lutsel K’e Dene...Any impact to the calving grounds is a significant public and environmental concern for the Lutsel K’e Dene... It has the potential to incite further developments which will create further

cumulative effects to this and other herds that use that area.” – *Lutsel K’e Dene First Nation*

“The proposed Izok mine is within the traditional territory of the Indigenous North Slave Métis community, as are the southern portions of the proposed Izok road....An all-weather road, as proposed, would significantly increase the likelihood of additional cumulative effects in the entire region...This is a very significant project that will have transboundary effects on numerous species of wildlife, and on people who harvest and otherwise value the wildlife.” – *North Slave Métis Nation*

“The first major concern that the Tlicho Government has with this development is the potential impact on caribou. ... raise extensive concerns for the Tlicho from the direct impacts on the caribou calving grounds, the impacts of noise and activity that will stress the caribou at a very sensitive time, loss of habitat, air quality impacts, and deposition of dust and debris on the food source for caribou at a critical time in their life cycle to start” – *Tlicho Government*

“The proposed mines and transportation corridor may put the herd at further risk and ultimately affect harvesting opportunities for Tlicho and other aboriginal harvesters. This consideration will need to be adequately addressed in the assessment of potential effects of the proposed project.” – *Wek’èzhìi Renewable Resources Board*

“Although the Izok Corridor Project is located in Nunavut, the cumulative effects on caribou from this and other projects are therefore also of concern, including *cumulative transboundary effects*.... The company has not described how GHG emissions will be fully mitigated in this project.” – *Bob Bromley*

“The potential impacts of the project on Bathurst caribou are likely to cause significant adverse eco-systemic...effects that extend far beyond its proposed physical footprint in Nunavut into the NWT and other adjacent regions...The proposed mine sites and all-weather road for the Izok corridor project add to a growing list of existing and proposed developments in the Slave Geological Province of Nunavut and the NWT that impact our water, caribou and other species such as grizzly bear, wolves and wolverine.” – *Canadian Parks and Wilderness Society*

“There is significant potential for this major project to result in negative impacts to aquatic habitats.” – *Wildlife Conservation Society Canada-Ontario*

“The Izok Corridor Project has the potential to affect the biophysical and human environments through activities and infrastructure development associated with all phases of the Project...” – *MMG Resources Inc.*

- 2) The project may have significant adverse socio-economic effects on Northerners - 12.4.2 (a) (ii):

The NIRB, commenting parties, and the Proponent have identified potential positive and negative socio-economic effects that could be caused by the proposed project. In addition to positive socio-economic effects associated with potential employment opportunities and training and the potential effects of the project on local and regional economies, the importance of wildlife harvesting to northerners' social and cultural values must be recognized. Reliance of many northerners on caribou as a food source also means the health of caribou herds factor prominently into the local economy. Many comments emphasized the importance of preserving the social and cultural values associated with caribou harvesting and the hardship created by limits on harvesting, and expressed concern regarding the potential for adverse effects on caribou populations to have significant negative socio-economic effects. A selection of the comments outlining socio-economic considerations is presented below:

“The Project may also cause some adverse socio-economic effects such as: possible reductions and/or disruptions in harvesting opportunities for hunters and trappers; and the potential for some societal problems...However, the ICP [Izok Corridor Project] will also result in increased employment and training opportunities for Kitikmeot Inuit, which will likely improve their standard of living.” – *Kitikmeot Inuit Association*

“The GN believes that this project could have significant effects on...socio-economics of Nunavut, and heritage resources and will likely have the most impact in the Nunavut Settlement Area (NSA) and may cause significant public concern.” – *Government of Nunavut*

“If recovery of the [Bathurst] herd is delayed because of these accumulated factors, then restricted harvest for aboriginal hunters in the NWT may continue, imposing continued hardship on affected communities.” – *Government of Northwest Territories*

“AANDC has reviewed the project proposal and is of the opinion that due to the nature and scale of the proposed project's activities and components having potential to cause significant adverse ... socio-economic effects on northerners, a review is required under 12.4.2 of the Nunavut Land Claims Agreement.” – *Aboriginal Affairs and Northern Development Canada*

“This proposed project and its potential impacts on Bathurst caribou could have serious ramifications for Beverly and Qamanirjuaq caribou herds and people who harvest them,...” – *Beverly and Qamanirjuaq Caribou Management Board*

“Since the health and well-being and yearly migration of caribou herds is integral to the AD economic, social and cultural identity, any potential disturbance to the caribou is potential risk to the AD identity...This subsequently impacts on the AD communities that rely on the caribou for sustenance.” – *Athabasca Denesuline*

“Dene Nation is concerned with the proposed Izok Corridor project because it is threatening a sacred caribou calving ground area. Caribou is the main source of sustenance for Dene...Caribou is one of the most important renewable resources in

Denendeh...Caribou is very important to Dene it is vital connections to our health and cultural way of life.” – *Dene Nation*

“We are concerned that our hunting and harvesting rights will be in jeopardy if the project is allowed to proceed as is.” – *Lutsel K’e Dene First Nation*

“For that reason we deserve special consideration during socioeconomic and cultural impact assessment. Impacts to our social and economic determinants of health also generate human health concerns.” – *North Slave Métis Nation*

“The primary concerns of Tlicho...potential impact on heritage resources.” – *Tlicho Government*

“The Yellowknives Dene First Nation is dependent on the Bathurst Caribou herd. This project and the associated road are occurring adjacent and directly within the core calving grounds.” – *Yellowknives Dene First Nation*

“...present the development challenges facing the Bathurst caribou herd and for the Assiniboine, Dene, Métis and Inuit residing in the province of Saskatchewan, the Northwest Territories and Nunavut dependent upon this herd as a local, not imported, food source.” – *Canadian Arctic Resources Committee*

“The potential impacts of the project on Bathurst caribou are likely to cause significant... socio-economic effects that extend far beyond its proposed physical footprint in Nunavut into the NWT and other adjacent regions....This proposal threatens the livelihood of communities in Nunavut and the NWT,...” – *Canadian Parks and Wilderness Society*

“This project proposal cannot be viewed in isolation, because it will have significant cumulative impacts on the tundra ecosystem.” – *Wildlife Conservation Society Canada-Yukon*

“The Bathurst herd is of great importance not just to Inuit harvesters in Nunavut, but to Dene hunters in the NWT where these caribou migrate and winter.” – *World Wildlife Fund-Canada*

“Potential direct effects of the Project on socio-economic environment are largely determined by: employment directly with MMG, or with a contractor; payment of royalties, taxes and other forms of compensation; and changes to the biophysical environment in relation to human activities or perception.” – *MMG Resources Inc.*

3) The project will cause significant public concern - 12.4.2 (a) (iii):

After soliciting comments from the public and interested parties, and completing an internal technical review, it is the opinion of the NIRB that the size, location and nature of the Izok Corridor Project will cause significant public concern, and that this would be best addressed through the course of a public review pursuant to Part 5 or 6 of NLCA Article 12. A selection of

the comments and concerns identifying significant public concerns associated with the project are summarized below.

In addition, on the basis of concerns related to the potential for transboundary impacts to be experienced outside the Nunavut Settlement Area (NSA), a number of commenting parties recommended that the Izok Corridor Project be subject specifically to a Review by a federal assessment panel as per Section 12.6.1 of the NLCA (an Article 12, Part 6 Review).

“The KIA has not consulted Inuit beneficiaries to assess any level of public concern at this stage of the project. However, items within the ICP [Izok Corridor Project] project proposal that arouse concern for the KIA itself include (but are not limited to): hydrogeology, air and water quality as it relates to the project’s mine and mineral waste management; water consumption; impacts on fisheries, wildlife and their habitats; closure and reclamation management; and traditional knowledge...The KIA believes that a Part 5 Review will allow for a more thorough assessment of the effects of the project, on both the ecosystems and socio-economic factors.” – *Kitikmeot Inuit Association*

“The GN believes that this project could have significant effects ...and will likely have the most impact in the Nunavut Settlement Area (NSA) and may cause significant public concern....The GN recommends that the NIRB issue a decision consistent with Article 12.4.4 (b) of the NLCA. Furthermore, as with the case of other mining projects reviewed by the NIRB in recent years, we believe that most of the environmental and socio-economic impacts will be felt within the NSA, therefore the GN recommends the project proceed with a review as set out under Part 5 of Article 12 of the NLCA.” *Government of Nunavut*

“As a result of the possible impacts to people and wildlife in NWT, the GNWT requests the project undergo a review pursuant to Part 6 of Article 12 of the NLCA. This section allows for a public review process that must also consider regional and national interests...Protection of caribou calving grounds is a high priority for Aboriginal governments, co-management boards, and communities in the NWT and Nunavut.” – *Government of Northwest Territories*

“AANDC has reviewed the project proposal and is of the opinion that due to the nature and scale of the proposed project’s activities and components having potential to cause significant adverse environmental impacts and socio-economic effects on northerners, a review is required under 12.4.2 of the Nunavut Land Claims Agreement.” – *Aboriginal Affairs and Northern Development Canada*

“Due to the potentially significant adverse impacts to these ecosystem components resulting from the proposed project, it is EC’s opinion that the project should be referred to a review under Article 12, Section 12.4.4(b) of the Nunavut Land Claims Agreement.” – *Environment Canada*

“DFO suggests that the NIRB consider recommending the Izok Project to be under Article 12, as provided for in Section 12.4.4(b) of the *Nunavut Land Claim Agreement*” – *Fisheries and Oceans Canada*

“NRCan recommends that the Izok Corridor Project be referred to review under Article 12, section 12.4.4 (b) of the Nunavut Land Claims Agreement.” – *Natural Resources Canada*

“Based upon the proposed project scale, Transport Canada is of the opinion that the proposed project ...could arouse public concern.” – *Transport Canada*

“...a Part 6 Review would be required to ensure that adequate assessment is provided for trans-boundary impacts, including cumulative impacts.” – *Beverly and Qamanirjuaq Caribou Management Board*

“The AD request a full review of trans-boundary and cumulative impacts within our traditional territory and jurisdiction, possibly through a Part 6 Review conducted by a federal panel.” – *Athabasca Denesuline*

“Dene Nation opposes the project because of its location and its direct impacts on calving ground areas... Dene Nation recommends that the project be rejected. The proposed project will impact treaty 8 and 11 territories...If it is not rejected then Dene Nation recommends NIRB to conduct a thorough environmental assessment.” – *Dene Nation*

“Any impact to the calving grounds is a significant public and environmental concern for the Lutsel K’e Dene.... The trans-boundary concern with the caribou that migrate from Nunavut, through the NWT, and as far as Saskatchewan, require a part 6 review under the NLCA.” – *Lutsel K’e Dene First Nation*

“This project deserves the highest possible level of environmental assessment, which includes thorough and comprehensive baseline data and impact assessment on: Trans-boundary Effects, Aboriginal Human Rights, Cumulative Effects.” – *North Slave Métis Nation*

“There is significant public concern regarding the Bathurst herd and any further disruption to this critical species is unacceptable risk to the Tlicho Government and the Tlicho people. The Tlicho Government recommends a Part 6 Review be undertaken of this proposed development in order to assess the site specific and cumulative effects it may contribute to.” – *Tlicho Government*

“The WRRB recommends that a thorough Part 6 review be undertaken to adequately assess the potential for project specific effects and cumulative effects of this project on the wildlife of importance in this region and how it may influence wildlife that is transboundary.” – *Wek’èzhii Renewable Resources Board*

“There is significant potential for transboundary effects resulting from the project (i.e., effects extending into the NWT), including effects from the proposed new winter and all-season roads across the calving ground and other Bathurst caribou range, impacts from other project facilities and activities on the Bathurst range, and possible use of the Tibbit-Contwoyto winter road... The road must re-routed to avoid the Bathurst caribou calving grounds, and activity on the road needs to be restricted during migratory periods.” – *Weledeh Member of Legislative Assembly*

“The application should be outright rejected. If this is not possible through NIRB legislation, this project must be referred to the highest level of public review – which we believe is a Part 6 review.” – *Yellowknives Dene First Nation*

“This proposal presents a national trans-boundary issue for people in the Northwest Territories, Nunavut and Saskatchewan dependent upon a healthy population for this herd for basic nutritional requirements. The impact of the Izok Corridor Project proposal goes beyond the boundaries of Nunavut....That both Izok and Sabina be combined into a Part 6 review to examine the impact on the Bathurst and associated caribou herds and the user groups across the respective borders in the province of Saskatchewan and in the Northwest Territories...” – *Canadian Arctic Resources Committee*

“The [CPAWS-NWT] submits that the proposed Izok corridor project is an issue of significant public concern...The ecological and socioeconomic repercussions of this project, particularly in regards to Bathurst caribou, must be considered a trans-boundary issue. We therefore recommend that the project be subject to Part 6 review under the NLCA.” – *Canadian Parks and Wilderness Society*

“MiningWatch Canada would like to support various government and Indigenous organizations’ calls for a review of this project by a Federal Environmental Assessment Panel under Part 6 of Article 12 of the Nunavut Land Claims Agreement (NLCA)... We also urge NIRB and the Minister to ensure the provision of adequate participant funding for Indigenous groups and interested stakeholders to meaningfully engage in the review.” – *MiningWatch Canada*

“Subject the proposed Izok Corridor to a Part 6 Review conducted by a Federal Panel to transparently and comprehensively assess the potential for significant project-level and cumulative impacts...Provide dedicated funding to communities (e.g., through Intervener funding) to ensure they have the necessary capacity to participate fully in impact review processes for this project.” – *Wildlife Conservation Society Canada-Ontario*

“This project should be subject to a federal environmental review (Part 6 Review) because it has significant inter-jurisdictional implications, including effects to the subsistence food economy of Northwest Territory communities.” – *Wildlife Conservation Society Canada-Ontario*

“WWF recommends that NIRB turn down any request for an exemption to future environmental review of this project; that instead it be subjected to a Part 6 Review,

given its transboundary implications and precedent-setting significance in terms of considering industrial development in a caribou calving area; that harvesters in both Nunavut and the NWT be afforded intervener funding to participate fully in any review,...” – *World Wildlife Fund–Canada*

“...MMG anticipates that the NIRB screening will lead to a decision that the Project be reviewed under Part 12.5 of the Nunavut Land Claims Agreement.” – *Minerals and Metals Group*

The NIRB recognizes that the determination of whether the project is referred to a Part 5 NIRB Review or Part 6 Federal Panel Review is the Minister’s decision alone to make in accordance with Section 12.4.7 of the NLCA.

4) The project involves technological innovations for which the effects are unknown - 12.4.2 (a) (iv):

The Izok Corridor Project appears to include components which have not previously been implemented in either the Kitikmeot region specifically, or within Canada’s Arctic region before. Such components include the utilization of sub-aerial dry stack tailings as a mine waste management strategy and the construction of a 350 kilometre all-season access road in close proximity to caribou calving grounds for the purpose of facilitating the development of multiple mine sites. Accordingly, there exists potential uncertainty relating to the effects resulting from the implementation of these proposed project components in Arctic environments. A number of parties expressed concerns on these matters as follows:

“The KIA is of the opinion that the ICP [Izok Corridor Project] will result in substantial impact on the land. The KIA has concerns with mine and mineral waste management, air and water quality, engineering, and fish and wildlife habitat. We do, however, believe that these effects are predictable and mitigable with known technologies, and with appropriate project planning and management.” – *Kitikmeot Inuit Association*

“The GNWT suggests the MMG find an alternate route that avoids the calving grounds, used in conjunction with a flexible approach to seasonal protection measures for caribou (i.e., during calving and post-calving migrations).” – *Government of Northwest Territories*

“MMG’s application should not be approved...MMG should be asked to develop a new project proposal that does not include a road across the Bathurst calving and post-calving areas.” – *Beverly and Qamanirjuaq Caribou Management Board*

“These are key issues, and monitoring impacts will not be sufficient to protect the herd. The AD do not support the construction of an all-season road through the calving ground. A no-route option is preferred and should be examined by MMG and developed in their proposal.” – *Athabasca Denesuline*

“The caribou is the life of Dene people and we cannot possibly allow for any development on their calving grounds, therefore the proposal should be rejected. If not possible, alternatives to the all season road must be recommended.” – *Lutsel K’e Dene First Nation*

“The road must re-routed to avoid the Bathurst caribou calving grounds, and activity on the road needs to be restricted during migratory periods.” – *Weledeh Member of Legislative Assembly*

“...until the company is able to demonstrate that the impacts to this herd can be successfully mitigated, YKDFN will remain steadfastly opposed to this project...” – *Yellowknives Dene First Nation*

“Developing a road through the Bathurst caribou calving grounds is simply unacceptable; an alternative should be presented in the proposal. We do not believe that the project's potential adverse effects are predictable because the geographical scope of ecological and socioeconomic impacts is without precedent.” – *Canadian Parks and Wilderness Society*

“The review should include an assessment of alternative options for development that avoid the construction of a permanent road through the calving grounds of the Bathurst Caribou.” – *Mining Watch Canada*

“This project’s proposal to build a road through the core of the Bathurst herd’s calving grounds should be turned down...The project should be postponed, on the basis of precaution, until a more solid understanding of the feasibility of air-ship transport is available...This proposal has large, and very straightforward, negative environmental implications, for which there is no clear mitigation, and no clear effort by the proponent to avoid.” - *Wildlife Conservation Society Canada-Yukon*

“...given its transboundary implications and precedent-setting significance in terms of considering industrial development in a caribou calving area.” – *World Wildlife Fund–Canada*

Following the NIRB’s technical review of the project proposal and consideration of the potential impacts associated with this type of project development including mining, milling and tailings management, an all-season access road linking the mines with a port facility to be established on the Coronation Gulf and associated infrastructure, as well as the public concerns expressed, the Board has identified that there are a number of issues which require further attention and clarification by the Proponent in order to ensure a thorough environmental impact assessment. In the NIRB’s view, these issues would best be addressed through the public review process pursuant to Part 5 or 6 of Article 12 of the NLCA.

#### ADDITIONAL ISSUES OF CONCERN TO NIRB

In addition to the potential ecosystemic and socioeconomic impacts identified by parties which the NIRB must consider pursuant to NLCA Section 12.4.2, the NIRB has also identified several

other important issues which a review of the Izok Corridor Project should take into consideration:

### **1. Proposed use of sub-aerial frozen deposition method (dry stack facility) in Tailings Management Strategy**

Within its project proposal, MMG has indicated its intention to utilize a sub-aerial deposition and compaction methodology for tailings waste rather than utilizing a sub-aqueous deposition methodology more common for Nunavut mining developments. Although the Proponent has provided examples of where similar technology has been used in other semi-arid northern environments, the Board has concerns that the selected method has not been adequately tested or proven to be effective within the Nunavut Settlement Area. Given the unique climactic, landform, and permafrost conditions in Nunavut, this strategy for tailings management would require rigorous assessment to ensure appropriateness and effectiveness in the context of this proposed project.

### **2. Potential transboundary impacts due to the Project's proximity to the Nunavut-Northwest Territories Territorial Boundary**

MMG's project proposal identified Yellowknife, NWT and communities of the Kitikmeot region in Nunavut as potential sources for project labour, goods and services, as well as serving transportation needs to include the establishment of a temporary winter roads between the proposed Izok Mine and the Tibbett-Contwoyto Ice Road. The Proponent has also indicated that it may potentially utilize the existing Tibbett-Contwoyto Ice Road to transport materials and equipment from Yellowknife, NWT until construction of its own all-season access road has been completed.

The Proponent's plans to source labour, goods and services in various communities has the potential to impact upon the economic well-being, self-reliance, and business opportunities within both the Northwest Territories and Nunavut. In addition, concerns regarding impacts (specifically transboundary and cumulative impacts) to caribou within Nunavut and the Northwest Territories have been expressed by groups in both territories and will require careful consideration of project-specific transboundary and cumulative impacts, mitigation measures as well as regional and territorial coordination of monitoring and mitigation measures. The Board also notes that the Itchen and Izok Lakes are contained within a watershed that extends across the Nunavut-Northwest Territories border. The Board has concerns that impacts to waterways within Nunavut as a result of the proposed project could also carry over into the Northwest Territories.

As a result of these considerations, the Board is of the opinion that thorough consultation with affected communities and groups in the Northwest Territories will be required to ensure potential impacts to regions and/or populations outside of Nunavut are understood and assessed to the extent necessary, and appropriate measures designed to mitigate any potential impacts identified through this process.

### **3. Geographic Extent of the Project Scope**

MMG plans to develop the Izok and High Lake properties, an approximately 350 kilometre all-weather access road to connect the mine sites, and a port at Grays Bay to facilitate project-related shipping. The combined land requirement for this project is estimated to be 1,160 hectares (ha) and extends south from the northern mainland coast to within a few kilometres of the Nunavut-Northwest Territories border. MMG is proposing marine shipment of materials and ore concentrate through the port at Grays Bay with routings through both western and eastern Arctic waters. Ships travelling from the west would pass through the Bering Strait, Beaufort Sea and Amundsen Gulf to a port at Grays Bay, Coronation Gulf, while from the east, ships would pass through Davis Strait and Baffin Bay, Lancaster Sound and Peel Sound on to Victoria Strait and the port at Grays Bay. The NIRB recognizes that there is an associated potential for impacts to communities and Inuit harvesting of marine species which may could require additional consultation in potentially affected regions beyond the Kitikmeot Region of Nunavut. The far-reaching geographic scope and extent of the proposed project's footprint will be important considerations in establishing the appropriate scope for the assessment.

#### **4. Potential Cumulative Effects of Increasing Mineral Development in the Kitikmeot Region**

The Izok Corridor Project adds to the number of proposed and/or developed mines in the Kitikmeot Region. The NIRB is aware of an increasing number of mineral exploration and development projects currently operating or under Review by the Board throughout the Kitikmeot Region, including:

- Sabina Gold and Silver Corp.'s **Back River exploration activities** (NIRB File Nos. 04RN015; 04RN101; 06EN033; 08EA084; 09RN066)
- Sabina Gold and Silver Corp.'s **Back River mining development proposal** (NIRB File No. 12MN036), submitted to the Minister of AANDC on September 25, 2012 and awaiting Ministerial approval to the Board's recommendation that the proposal be subject to a public review pursuant to Section 12.4.4(b) of the NLCA;
- Sabina Gold and Silver Corp. and Xstrata Zinc Canada's **Bathurst Inlet Port and Road project proposal** (NIRB File No. 03UN114) currently undergoing Review by the Board pursuant to NLCA Article 12, Part 5;
- Hope Bay Mining Ltd.'s **Doris North Gold Mine**, currently being monitored by the Board pursuant to NLCA Article 12, Part 7 (NIRB File No. 05MN047), as well as the proposed Phase 2 Hope Bay Belt project proposal undergoing Review pursuant to NLCA Article 12, Part 5 (NIRB File No. 12MN001);
- Shear Diamonds Corp.'s **Jericho Diamond Mine**, currently being monitored by the Board pursuant to NLCA Article 12, Part 7 (NIRB File No. 00MN059) and subsequent mineral exploration within the vicinity of the Jericho Diamond Mine (NIRB File No. 11EN009);
- North Arrow Mineral Inc.'s **Torp Lake exploration project** (NIRB File No. 09EN059) and **Hope Bay exploration project** (NIRB File No. 11EN001);

- Guyana Precious Metal Inc.'s **Dismal Lakes exploration project** (NIRB File No. 11EN033);
- Elgin Mining Ltd.'s mineral **exploration activities near the former Lupin Mine** (NIRB File No. 11EN047); and
- Xstrata Zinc Canada's **Hackett River project proposal** undergoing review by the Board pursuant to NLCA Article 12, Part 5 (NIRB File No. 08MN006), and related exploration activities (NIRB File Nos. 04EN012; 06EN033; 08EA084; 09RN066).

The NIRB's Screening assessment has also considered the potential for cumulative impacts to wildlife, including barren-ground caribou populations, particularly the Ahiak, Dolphin and Union, and Bathurst herds which could result from habitat loss and disruption of migration patterns caused by MMG's proposal to concurrently operate multiple mine sites and a 350 kilometre all-weather access road in the Slave Geological Province area in combination with other mineral developments in the area. The NIRB further notes that several of the other projects set out above also include significant road infrastructure components which carry the potential for increased fragmentation of largely undisturbed caribou habitat.

Given the relatively small population base in the Kitikmeot region and the number of proposed and ongoing developments within the area, the Proponent's plan to potentially source Project labour, goods and services from Kitikmeot communities could result in cumulative socio-economic impacts when considered in context with the other ongoing developments which are, or will be, placing similar demands upon limited social and economic resources.

The Board also recognizes the importance of the wildlife and wildlife habitat located in the Kitikmeot region, particularly caribou calving and post-calving areas, both to the caribou using them, and the residents, communities and businesses within both Nunavut and the Northwest Territories which rely on these animals for subsistence or other purposes. The NIRB believes that the potential for cumulative ecosystemic and related socio-economic effects require thorough consideration to fully understand the implications of this proposed project.

## **5. Availability of Participant Funding**

As noted in several comment submissions, and as previously raised by the NIRB in recent reviews, it is the NIRB's opinion that given the location, range and scope of the potential impacts of the proposed project, participant funding will be required to promote effective participation by potentially affected groups in the environmental assessment process. In particular, the NIRB notes that certain ecosystemic and socio-economic components, such as caribou, the marine ecosystem, culture and human health and well-being, may be impacted both throughout Nunavut (including effects outside the Kitikmeot region) and into the Northwest Territories, making extensive consultation with potentially affected aboriginal and other community groups of central importance to achieving the Board's mandate of thorough and inclusive assessment.

The Board notes that there is a precedent for the Minister to direct the awarding of this type of funding in previous Reviews conducted by the NIRB, however the NIRB also recognizes that no established participant funding program is currently in place, and as such, these requests for support must be considered by the Minister on a case by case basis. The NIRB recommends that

the Minister, in making his determination, consider the critical need for ensuring all potentially-affected groups and individuals have the means to effectively participate through any Review established for this project proposal. As noted in several comment submissions and as supported by the Board, given the extensive scope, geographic extent and potential to affect residents of the Northwest Territories, as well as Inuit and other residents within multiple regions of the Nunavut Settlement Area and the Inuvialuit Settlement Area, ensuring that the assessment process includes full and meaningful participation of those potentially affected by the project is essential, and the establishment of participant funding features prominently in supporting that goal.

## **6. Timelines and Capacity Challenges**

The NIRB believes it is also important to recognize that a number of commenting parties indicated that they are currently experiencing capacity challenges and further expressed concern that they might be unable to effectively engage in the Review process for this project if standard NIRB Review timelines are adhered to. While the NIRB supports a timely and efficient review process for all of its assessments, recognizing that there is a large number of potentially affected groups, communities and interested parties which must inform the analysis of potential project-induced impacts, it is reasonable to expect that Review timelines could be affected. Given the Board's current workload with active Reviews for multiple project proposals across Nunavut, and additional project proposals which have now been recommended for Review and await the Minister's decision, the NIRB anticipates it may also encounter resource constraints internally as well as within various government departments and agencies as the Board attempts to coordinate the scheduling of the multiple commenting deadlines, public meetings, workshops and hearings required for each assessment. The NIRB will continue to do its best to maintain the most efficient Review timelines possible moving forward, and will continue to investigate the need to extend assessment timelines on a case-by case basis.

### RECOMMENDATION TO THE MINISTER

Collectively, the Board has carefully considered the factors set out in sections 12.4.2(a) and 12.4.2(b) of the NLCA. The Board is of the opinion that, based on a technical review of the project proposal and the submissions of the Parties as set out in the preceding sections of this Screening Decision, this Project may have significant adverse effects on the ecosystem, wildlife habitat or Inuit harvesting activities; adverse socio-economic effects on northerners; will cause significant public concern; and involves technological innovations for which the effects are unknown.

**Therefore, pursuant to Section 12.4.4(b) of the NLCA, the Board recommends to the Ministers that MMG Resources Inc.'s "Izok Corridor Project" proposal requires review pursuant to Part 5 or 6 of NLCA Article 12.**

The NIRB looks forward to receiving your decision and will respond in a timely and efficient manner to your direction once received.

Yours truly,



Phillip Kadlun  
Vice Chairperson  
Nunavut Impact Review Board

cc: Honourable Denis Lebel, Government of Canada, Minister of Transport, Infrastructure and Communities  
Honourable Joe Oliver, Government of Canada, Minister of Natural Resources  
Thomas Kabloona, Chairperson, Nunavut Water Board  
Charlie Evalik, President, Kitikmeot Inuit Association

Attachments: Appendix A: Comment Submissions Received by Parties (December 7, 2012)  
Appendix B: Complete List of Public Commenters

**APPENDIX A**  
**COMMENT SUBMISSIONS RECEIVED BY PARTIES (December 7, 2012)**

Please note that due to considerable overlap in the content of the submissions, and in order to provide a manageable document to the Minister for his review, the comment submissions from individual members of the public have not been attached directly to this document. However, a full listing of individual public commenters has been provided in Appendix B below, and all comment submissions (including those received by agencies, attached to this report) associated with the Screening for this project proposal (NIRB File No. 12MN043) are accessible from the NIRB's public registry online using the following link: <http://ftp.nirb.ca/01-SCREENINGS/>

**APPENDIX B**  
**COMPLETE LIST OF PUBLIC COMMENTERS**

- Allen Bossin
- Alex Hall
- Michael Peake
- Jay and Carolyn Pritchett
- Kittie-Marie and George Fells
- Noah Cole
- Bob Bromley
- Andrew Pettit
- Gregory B. Gallager
- Alex MacDonald
- Andrew Procner
- Fred Svensson
- Arlene Zimmer
- Barbara Bruce
- Bill Ridgeway
- Brian Veale
- Brenda Wilkinson
- Charlie Boole
- Gladio Giovine
- Craig Lauder
- Cynthia Ratliff
- Clifford/Christine Schmutz
- Desmond Berghofer
- San Durston
- Diane Hejl
- Doug Landau
- Dawn Macdonald
- David Pelly
- Debbi Skitsko
- Doris Warnstedt
- Elizabeth Abrantes
- Ed Dahl
- Eliot Kaplan
- Estelle Rivait
- Elizabeth Spence
- Frank Boggio
- Francis Daigle
- Femke De Meester
- Hans Weidemar
- Ben McDonald
- Plummer's Arctic Lodges (Chummy Plummer)
- Anne Gunn
- Christopher O'Brien
- Peterson's Point Lake Lodge (Margret Peterson)
- Rebecca Gardner
- Aija Auzina
- Ann Marini
- Antje Rilk
- Alexander Tamo
- Bonnie Barfield
- Bruce Donovan
- Brian Stokes
- Barbara Vinson
- Choky Alvarez
- Catherine Brandsma
- Ciara Jensen
- Christine Lowther
- Christophe Riopel-Benoit
- Caroline Woodward
- David Dekerf
- Dion Fitzpatrick
- Dean Kelly
- Daniel Lapoite
- Denise Marion
- Dayna Plummer
- Duncan Smith
- Diane White
- Emily Brooker
- Elisabeth Giethlen
- Ellen Kent
- Elizabeth Rose
- Erika Verlinden
- Federico Bortoletto
- Francis Damberger
- Faruk Ekich
- Anne Bauman
- Annie Dawson
- Anne Green
- Amanda Greener
- Alice Harrison
- Anthony Ivankovic
- Art Kolter
- Alice Kwan
- Anne McMullen
- Amanda Scuder
- Anne Veraldi
- Belinda Britton
- Brent Elliot
- Brian Turner
- Beverly Walsh
- Cheryl Applewhaite
- Clare Fuller
- Carly Kear
- Christine Marshall Smith
- Celine Reid
- Denna Bendall
- Dianne Douglas
- Desiree Fleck
- Doug Krause
- Daniela Laudati
- Don McKelvey
- Don Ross
- Dawn von Arnim
- Don Young
- Esther Carmona Wagner
- Ellen Glover
- E. Mark Barker
- Eve Sglietto
- Francisco Anta
- Frederick Churchill
- Frank de Jong
- Francesco Emmanuel

- Francine Lanteigne
- Fleur Pigeon
- Fred Washburn
- Georgina Chambers
- Gil Jordan
- Graham Sparrow
- Herb Hornig
- Heather Ross
- John Bacher
- John Deakins
- Jane Glatt
- Jacqueline Holmes
- Jim McCarthy
- Jody Morrison
- John Sampson
- John Trainor
- Katie Chess
- Kay Lomas
- Koreen Tokar
- Lucie Desaulniers
- Lori Fontaine
- Laura & Lucy Peters
- Laurie Rockwell
- Lorenz Steininger
- Lynne Wheeler
- Maeva Gauthier
- Margery Coffey
- Michele Elliott
- Maxine Kibler
- Marissa McGregor
- Monica Ranger
- Mary Russell
- Marg Sutton
- Jim Marsh (Naazima Ali)
- Nichole Lesperance
- Pamela Bursey
- Pam Lavers
- Paige Wark
- Richard Dupuis
- Renie Mc Callum,  
Barbara Cox, Margaret  
Johnson, Robert Argyll,
- Fiona Malena
- Fiji Robinson
- Garry Briand
- George Elliott
- Gracie Maristela
- Gordon Wirth
- Heather Huck
- Ian Campana
- Jim Baird
- Jocelyn Fortier
- Jesse Gore
- Jody Holmes
- Julie Michaud
- James Pronk
- Judith Smith
- Jenna Vandal
- Katherine Elsworthy
- Kully Mindemann
- Kathie Welch
- Leanne Ellis
- Lynette Grants
- Lynn O'Shaughnessy
- Lori Solmes
- Louise Townsend
- Magda Gauthier
- Margaret (Peggy) Benoit
- Michael Collier
- Michele Gibbons
- Marinus Lutz
- Martin Piesse
- Moira Rehmer
- Mark & Susan Glasser
- Margaret Trainor
- Natasha Badger
- Natlie McLellan
- Peter Errmann
- Pat McMahan
- Richard Reynolds
- Kevin Floate (Rose  
Floate)
- Round the World Animals
- Fred McMechan
- Flo Slomp
- George Brown
- Gregory Gallagher
- Greg Shaw
- Heather Boychuk
- Heather Marvin
- Jeaneen Andretta
- Joanna Barnes
- John Gibson
- John Hill
- Jay Malcolm
- Jim Miller
- Jon Rozinsky
- Jon Spar
- Jackson Wiegiers
- Katherine Gee
- Kristin Robinson
- Kx Bx
- Lois Evans
- Lynn Jenkins
- Loo Perron
- Lisbet Hofman  
Stahrenberg
- Lillian Trim
- Marvin Amos
- Mike Carpenter
- Mary-Anne Draffin
- Michelle James
- Mary Alice Madden
- Morris Prokop
- Melba Ridgway
- Aria Sonia Estrada Solero
- Marie White
- Nancy Brenner
- Nancy Wilson
- Probyn Gregory
- Peter Wantuch
- Rayleigh Conley
- Rebecca Koo
- Ron Silver

Harry Dougan, Elsie  
Dougan

- Rea Walle
- Susan Babbitt
- Scott Cramere
- Sapir Fellus
- Stanley ones-Umberger
- Seth Levinson
- Sandra Molendyk
- Sam Quinn
- S. Marshall
- Susie Syrigonakis
- Tim Coogan
- Teresa Eaker
- Theresa Hood
- Tiina Payson
- Vickey Baker
- Vanessa Scott
- William Rizer
- Amanda Prysizney
- Breanne Quesnel
- Carolyn Du Brin
- Carole Simcox
- Denise Kobylarz
- David Wilkie
- Elizabeth Keirs
- Gerald Bance
- George Neste
- H. Douglas Butson
- Joanne Tremblay Turcotte
- Jane Davidson
- Julie Hobart
- John Peck
- Kathy MacMillan-Jones
- Lo Camps
- Line Gillespie
- Lynda Squires
- Michaux Arpad
- Marcy Gustafson
- Marin Minnesma
- Martina Wakeman
- Natalie Richter
- Patrick Mahaffey
- Rorke Bryan
- Rose Wedlund
- Stephen Campagnaro
- Susan Hook Czarnocki
- Sarah Haggerstone
- Dean Kubara
- Sue McGuey
- Sonja Nielsen
- Susanne Rautio
- Sarah K Russell
- Theresa Agnew
- Teena Cormack
- Trisha Fenn
- Trevor Kirczenow
- Ursula Heinz
- Victoria Buckley
- Viki Sherwood
- Yore Daniels
- Adam Ruzzo
- Cladia Bolli
- Christine McLaughlin
- Dinda Evans
- Dorothy Nelson
- Milie Boisvert
- Emily Smith
- Gerry Collins
- Gregory Richardson
- Hannah Evans
- Julie Amato
- John Day
- Jodie McTavish
- Jody Reimer
- Libby Barlow
- Lindy Clubb
- Laura Kolnick
- Lise Vaugeois
- Mikaela Benjmain
- Margaret Johnston
- Mike Mitchell
- Melissa Willey
- Phil Crabill
- Patrick Merle
- Rosemary Hanna
- Stuart Heard
- Suzette Chen
- Sarah Derby
- Sigmund Hagvar
- Susan Lee
- Susan Messerschmitt
- Susan Normoyle
- Sharon Rodrigues
- Sara Schermerhorn
- Tim Anderson
- Tim Davis
- Terry Galvon
- T. Mayer
- Victor Andres
- Vivian Pharis
- Vincent Simon
- Yvonne Eleniak
- Amber Tidwell
- Chris Brackley
- Chris Randall
- David Fiedler
- Darrell Nieberding
- Elena Grimaud-Ineihen
- Freddie Williams
- Gudrun Dennis
- Greg Yeargain
- Henry Hutter
- Julia and Charles Bashaw
- Jessica Hein
- Jennifer Morin
- Kathy Grill
- Leslie Braun
- Lyndon Cousins
- Laura Machny
- Litsa Tzanetis
- Matt Courter
- Michael Martin
- Michael Waglay
- Nicklas Lindbom
- Peter Kerr
- Patricia Monger
- Ryan Kikauka

- Ryan van der Marel
- Susan Koskinen
- Shirley Tajcnar
- Ted Erwin
- William Davis
- Barbara Fischer
- David Feeny
- Heidi Marion
- Jan Whitehead
- Denise Trafford
- Mixa Borg
- Roberta McCullough
- Fred Raininger
- Michelle Musiol
- Robert E. Wendrich
- Chris Kyte
- Misty Breaux
- Tom Potter
- Sebastien De Marre
- Sandra Marshall
- Stefanie Reska
- Terri Gillespie
- Wendy Forster
- Chad Bauld
- Diane Poloczek
- Heather Bessey
- June Bullied
- Lindsay Bellamy
- Margaret Wood
- Tania Battaglin
- Bob Hellman
- Phyllis Chavez
- Isha S
- Erika Gisell
- Mauricio Carvajal
- Daniel Thomas
- Stephanie Gauthier
- Sandra Sokoloski
- Tracy Regnier
- Tony Little
- Amitav Dash
- David Lowry
- Elena Pollarolo
- Jean Le Marquand
- Kelly Comton
- Laurene Brown
- Ross Dabrusin
- Fiona Harriss
- Lowell Kulak
- Rebecca Hoeschler
- Veronique Jarrell-King
- Lorna Zamora
- Robin Blairon