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Environment Canada
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Our file: 4703 003 018

Leslie Payette
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Nunavut Impact Review Board
P.O. Box 1360
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Via email: lpayette@nirb.ca

**Re: Notice of Part 4 Screening and Comment Request for Baffinland's Mary River
Development Proposal (NIRB: 08MN053)**

Thank you for the opportunity to provide input into the Nunavut Impact Review Board's (NIRB) Part 4 screening decision for the Baffinland Iron Ore Mines Corporation's Mary River Mine Project. The following specialist advice has been provided pursuant to Environment Canada's mandated responsibilities for the enforcement of the *Canadian Environmental Protection Act*, Section 36(3) of the *Fisheries Act*, the *Migratory Birds Convention Act*, and the *Species at Risk Act*.

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. This advice is based on the scale of the proposed project and the anticipated environmental impacts that may occur if this project proceeds. As outlined in the project proposal, the Mary River Mine Project includes among other things:

- Prepositioning of fuel and materials for construction at both Milne and Steensby inlets and at the mine site;
- Construction, operation and decommissioning of an open pit iron ore mine;
- Upgrading of a 100 km winter road into an all weather road;
- Construction, operation and decommissioning of a 143 km rail line between the mine site and Steensby Inlet;
- Construction, operation and decommissioning of a port facility at Steensby Inlet;
- Operation of an airstrip;
- Construction, operation and decommissioning of camps sufficient to house 1760 people during construction;
- Construction of permanent facilities at the mine site and at Steensby Inlet sufficient to house 275 and 175 people respectively;
- Construction operation and decommissioning of fuel storage facilities at Steensby and the mine site;
- Manufacture storage and use of explosives;
- Deposition of waste rock and management of waste rock storage areas;
- Location, accessing and reclamation of sand and gravel borrow areas to support construction and
- Year round shipment of ore to market on ice strengthened vessels.

EC is of the opinion that there is potential for this project to cause significant adverse environmental impacts. Potentially impacted ecosystem components include, but may not be limited to:

- Surface freshwater as result nutrient input from blasting and sewage treatment, suspended sediment as a result of construction activities, and accidents and malfunctions;
- Marine water quality as a result of the potential for accidents and malfunctions along the proposed shipping route;
- Air quality as a result of the operation of the incinerator, mine site activities and the hauling material on the road and of transporting ore concentrate along the rail line;
- Migratory birds as a result of habitat loss and disturbances at the proposed site facilities, roads, airstrip, dock facilities and along shipping and rail routes; and
- Species at risk as a result of habitat loss and disturbance at proposed site facilities, roads, airstrip, dock facilities and along shipping and rail routes.

EC also recommends the environmental review consider potential environmental impacts resulting from the proposed shipping route. The proposed ore shipment route will pass through sensitive terrestrial and marine habitat sites. Potentially significant adverse environmental impacts resulting from the proposed shipping activities include, but may not be limited to:

- Disturbance to waterfowl and seabirds nesting in coast areas along the proposed routes as a result of wake effects;
- Shoreline erosion as a result of wake effects and related water quality and habitat disturbance impacts;
- Changes to ice regimes as a result of ship traffic, which may impact wildlife migratory routes; and
- Impacts resulting from accidents or malfunctions which may occur during shipping, including spills of ore concentrate and fuel.

Due to the potentially significant adverse impacts to these ecosystem components resulting from the project, including the marine shipping components, it is EC's opinion that a review under Section 12.4.4(b) of the NLCA would be appropriate.

Should you have any further questions please contact me at (204) 983 4815 or via email at mark.dahl@ec.gc.ca.

Sincerely,

Mark Dahl
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Environmental Protection Operations

c.c: Carey Ogilvie, Head EA North, Environment Canada
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