



**BAFFINLAND IRON MINES CORPORATION
MARY RIVER PROJECT**

**DEVELOPMENT PROPOSAL FOR THE
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EXECUTIVE SUMMARY (ENGLISH)

Introduction

The Mary River Project (“the Project”) is a proposed iron ore mine and associated facilities located on North Baffin Island, in the Qikiqtani Region of Nunavut. Baffin Island is home to Inuit, who enjoy a culture that is unique and traditional to arctic regions. The land where the Project is located is important to Inuit culture, heritage, and their continued well-being in that these people use the resources on the land and from the sea for both their subsistence and in preserving their traditional way of life.

The Project involves the construction, operation, closure, and reclamation of an 18 million tonne-per-annum (Mt/a) open pit mine. The high-grade iron ore to be mined is suitable for international shipment after only crushing and screening and as such, no chemical processing facilities are required for this Project. A railway system will transport the ore from the mine area to an all-season deep-water port and ship loading facility at Steensby Inlet where the ore will be loaded into ore carriers for overseas shipment through Foxe Basin. A dedicated fleet of cape-sized ore carriers, capable of breaking ice, will be chartered by Baffinland from a consortium of ship owners organized by Fednav. Some non-icebreaking ore carriers and conventional ships will also be used during the open water season.

All major Project components will operate year round and, based on the currently-defined iron ore reserve, will continue to operate for about 21 years. Geological conditions suggest that additional ore may be delineated as exploration continues, potentially extending the life and/or increasing the production rate of the Project.

The Mary River site is located about 160 km south of the community of Pond Inlet (Mittimatalik) and 1000 km northwest of Iqaluit, the capital of Nunavut. Project facilities will be sited in the mine area at Mary River and port area at Steensby Inlet, with a railway line and access road connecting the two. Marine access and shipping through the construction phase and periodically during operation will occur seasonally through Milne Inlet and the existing Milne Inlet Tote Road will therefore be used periodically to access Mary River during frozen conditions. Shipping through Steensby Inlet will be seasonal through construction and year-round through operation. Access to the Project sites for personnel will be by chartered aircraft.

Site conditions play an important role in the planning and execution of the Project. The area experiences bitter cold in the wintertime and 24-hour darkness from November to January. Summers bring 24-hour daylight from May to August, but continued cool to cold conditions. While these conditions are typical of arctic environments, they substantially affect planning and logistics relative to most Project activities; but especially to shipping, procurement, construction, and field investigations.

Pre-Construction Staging

The construction and operation of major capital projects in the arctic requires significant up-front planning to address the short summer season and challenging logistics. Initial scheduling must consider the short open water periods for strategic material and supply deliveries for early works and also the activity-limiting extreme cold and darkness during the winter months until all-season facilities can be constructed and brought on-line. To facilitate this, Baffinland plans to pre-deliver in 2009 much of the materials and supplies required for the early construction works during the open water season using conventional arctic sealifts as employed to date by the Project and Nunavut communities. Sealifts carrying materials and supplies will be delivered to Milne Inlet, where they will be offloaded onto the beach and moved to Mary River via the Milne Inlet Tote Road during the winter of 2009-2010. The materials and supplies brought to Steensby Inlet will be offloaded and placed into new laydown areas that are within the planned footprint of the proposed new port facility. In addition to the sealifts, two barge camps, and banded fuel iso-containers or a fuel tanker or barge, will be pre-positioned to overwinter in Steensby Inlet so that construction can be initiated in mid-2010, pending regulatory approval.

Construction Phase

The construction phase of the Project is expected to be carried out over a 4 year period, from 2010 through 2014. Railway construction is the critical path item for the construction phase, and as such, it will be necessary to concurrently build the railway from a number of construction locations. Construction activities for the Steensby port and the railway will be staged from the Steensby port site, and construction activities for Mary River will be staged from Milne Inlet. In addition to current facilities, a large construction camp will be positioned at Mary River as well as barge accommodations at Steensby Inlet and up to four construction camps along the rail alignment. Infrastructure such as camps and laydown areas, aggregate sources from rock quarries, and sand and gravel borrow areas will be required to support construction. The construction workforce on-site will peak at approximately 1,760 people, working 4 weeks at site followed by 2 weeks off, for a total payroll peak of 2,680 people during construction. Where possible, permanent infrastructure will be built at the onset of construction, to be used during both construction and operation phases of the Project. In many instances, temporary infrastructure will be constructed or positioned at Project sites for the duration of the construction phase only, to be removed once construction is complete.

Operation Phase

The operating life of the proposed Project is expected to be about 21 years, although additional successful exploration results could either extend the operational life, increase the annual ore production volume, or both. The open pit mine at Mary River will include waste rock storage areas, facilities for crushing and screening of ore, explosives manufacture and storage, stockpiles, rail loading and unloading, power generation, worker accommodation and support facilities such as a power plant, service and maintenance shops. About 275 people will be on-site at Mary River during operations, with another 175 workers stationed at Steensby Inlet. Access to the mine site will be by airstrip and railway from Steensby Inlet, with most supplies delivered over the railway, and only occasional winter-only use of the Milne Inlet Tote Road.

The railway from Mary River to Steensby Inlet will be 143 km long, and will deliver iron ore from Mary River to Steensby Inlet, and transport supplies from the port to Mary River. The port at Steensby Inlet will consist

of a rail loading and unloading facilities and rail service/maintenance facilities; worker accommodations; ore loading, freight and tug docks; ore stockpile and ship loading facilities, and an airstrip. A dedicated fleet of about 10 icebreaking ore carriers, operated by a shipping company contracted to Baffinland will transport most of the ore to international markets 12 months a year. Additional shipping will occur during open water.

Closure and Reclamation Phase

Conceptual mine closure planning has been completed for the Mary River Project, with the objective of reclaiming Project areas to be both physically and chemically stable in the long-term for both public safety and environmental protection. Materials and equipment will either be removed from site or disposed of in the open pit, and all hazardous materials and wastes will be removed from site to licensed disposal facilities. The open pit and waste rock stockpiles will be inspected for physical stability. Roads, airstrips and development areas will be recontoured as appropriate to provide long-term stability and reduce the potential for erosion. The closure and reclamation phase is expected to be 3-years, followed by a minimum of 5-years of post-closure environmental monitoring to verify reclamation has successfully met closure and reclamation objectives.

Regulatory Processes

There are a number of regulatory processes applicable to the Project, including conformity to the North Baffin Regional Land Use Plan and possibly an amendment to the Plan. The Project is expected to undergo an environmental review by the Nunavut Impact Review Board (NIRB), an environmental review by the *Canadian Transportation Act*, and is subject to at minimum a comprehensive study under the *Canadian Environmental Assessment Act*. Baffinland expects that each of the CTA and CEAA reviews; in addition to the public review that would be necessary to amend the land use plan will be coordinated through the NIRB review process.

Various permits, licenses and approvals will be required to be issued upon successful completion of the review processes. Land tenure through leases and shorter term land use permits will be required from the Qikiqtani Inuit Association (QIA) to access Inuit Owned Lands that surround the Mary River site, and from Indian and Northern Affairs Canada (INAC) for the port at Steensby Inlet and most of the railway. Other key approvals include a Type A Water License from the Nunavut Water Board (NWB), *Fisheries Act* authorization applications with the Department of Fisheries and Oceans (DFO), approvals or exemptions under the Navigable Waters Protection Act, and a license for explosives manufacture.

The pre-construction staging is expected to be authorized prior to the completion of the Project review by NIRB. Article 12.10.2(b) gives NIRB the expressed authority to approve or issue licenses for certain exploration or development activities related to the Project if, in their judgment, it is appropriate to allow the activity to proceed prior to completion of the full review. Baffinland will apply to NIRB, pursuant to Article 12.10.2(b), to allow pre-construction staging to take place in 2009. Baffinland's development schedule presumes that this exemption will be obtained.

Stakeholder Engagement and Project Scoping

Stakeholder engagement has been an important part of the Project, engaging local communities and knowledge holders through dialogue and participation in the Project. Efforts have been and continue to be guided by the following objectives:

- To adequately scope and conduct environmental and socio-economic baseline studies
- To understand local conditions and issues both through the scientific process as well as by engaging in dialogue with local communities and knowledge holders
- To incorporate local knowledge and concerns into Project design at an early stage
- To appropriately scope an environmental assessment for the proposed Project

Baffinland established a network of community liaison offices (CLO) in 2007, which will remain in place during construction and operation phases. These offices are located in Baffinland's points-of-hire locations of (listed in alphabetic order) Arctic Bay, Clyde River, Hall Beach, Igloolik, Iqaluit and Pond Inlet. This network of CLO offices facilitate training and employment opportunities for land claims beneficiaries and are made available to all contractors working on the Project. Inuit knowledge studies are also ongoing in each of these communities.

Baffinland will operate direct flights to and from the Mary River site to Baffinland's designated points-of-hire locations. The point-of-hire locations define the Project's social zone of influence. Residents in the region that do not live at points-of-hire will not be precluded from working at the mine.

Proposed EIS Guidelines have been developed by Baffinland through its own familiarity with the Project and Project site, its own scoping activities, consultation with communities, and referral to EIS guidelines developed for other mining projects. Baffinland has provided these guidelines for NIRB's, NPC's and the NWB's consideration for adoption in whole or in part, to facilitate scoping and the development of NIRB-issued guidelines for the preparation of the Project Environmental Impact Statement.

