June 17, 2013

Georgina Williston
Habitat Management Biologist
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Fisheries and Oceans Canada
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Dear Ms. Williston:

Re: *Mary River Project*
Request for Advice
Quarry QMR2 Mary River Mine Site Access Road Culverts

Under Type B Water Licence 8BC-MRY1314 and NIRB Project Certificate 005, Baffinland Iron Mines Corporation (Baffinland) is authorized to develop Quarry QMR2 located at the Mary River Mine Site as part of its site preparations works and 2013 Work Program. Within the next two weeks, Baffinland plans to commence construction of the access road.

Three drawings accompany this Request for Advice:

- **Drawing No. 1**: H349000-4138-10-035-0003 East Access Culverts - Quarry QMR2 Plan and Cross-Sections.
- **Drawing No. 2**: H349000-4138-10-012-0001 Quarry QMR2 East Access Roads Profiles
- **Drawing No. 3**: H349000-4138-10-035-0004 Quarry QMR2 East Access Roads Culvert Details

Two proposed access road routes are shown on the attached **Drawing No. 1**. The two routes have been assessed based on fisheries studies completed as part of the FEIS (February 2012). Both routes are accessed from the existing Tote Road.

The preferred access road route is the shortest alignment distance and provides the least physical disruption to the biophysical environment. In reference to Drawing No. 1, there are two culvert installation crossings required for this route (Culverts nos. 1 and 2) in existing streams. The alternative non-preferred route option involves a less direct

access to the quarry (and consequently more land disturbance borrow/quarry material being used) with two installations for Culverts Nos. 2 and 3 required.

The Culvert no. 1 stream is designated as potentially fish-bearing. Although fish have not been captured or observed in this stream to date, it is periodically connected to a downstream water body (Camp Lake Tributary 1b, which flows into Tributary 1 and eventually Camp Lake) which is known to be fish bearing. Habitat in the Culvert No. 1 stream has been identified as marginal due to reduced flows, intermittent connectivity and lack of preferred substrate types, particularly for juvenile Arctic Char.

Culverts Nos. 2 and 3 are located in non-fish bearing habitat. Flows at both of these crossings are intermittent, typically drying up by summer, with no direct or indirect access to overwintering habitat. In addition, these sites do not provide even periodic rearing/feeding habitat for Ninespine Stickleback or juvenile Arctic Char due to restricted access from downstream fish-bearing streams.

Drawings Nos. 2 and 3, attached, provide additional technical design features for the proposed culvert installations that include proposed road profile and culvert details for the crossings. Attached **Table 1** provides details on proposed number, diameters, and lengths of culverts for each crossing location.

Prior to installation of Culvert No. 1, the stream will be surveyed for the presence of fish and, if necessary, a salvage fishery will be conducted. If fish are present, a barrier net will be placed downstream of the construction site to prevent additional fish potentially accessing to the construction site. Any fish present upstream of the barrier will be captured (using a backpack electrofisher) and transferred to fish-bearing habitat downstream of the barrier. If it is identified as non-fish bearing at the time of culvert installation, mitigation measures will be restricted to erosion control.

The only mitigation required during culvert installation at Culverts Nos. 2 and 3 is prevention of erosion that may impact downstream water bodies.

The environment mitigation measures related to erosion control that are to be adopted for this work are described in our approved Surface Water and Aquatic Ecosystems Management Plan (March 2013). The erosion measures and monitoring programs are identical to what has been used successfully in the past for Tote Road crossing installations.

Once we receive your advice, we are prepared to commence the road construction and culvert installations during the first week of July. As outlined above, it is our preference to access the QMR2 Quarry by means of the preferred route that involves the installation of Culverts Nos. 1 and 2. The culvert installations will be undertaken in accordance with

anticipated Letter of Advice to be provided by DFO. The culvert installation for Culvert No. 1 will be monitored by a fisheries biologist or trained environmental monitor to ensure installation will be satisfactory for fish passage.

By copy of this letter, we are providing advance notice to QIA, NWB, and AANC regarding the completion of this work. The proposed work falls within Baffinland's existing permits and conditional approvals. DFO and the parties copied on this correspondence are urged to contact the undersigned at jim.millard@baffinland.com should there be any questions or concerns regarding this undertaking.

Yours sincerely,
Baffinland Iron Mines Corporation

James Millard, M.Sc., P.Geo
Senior Environmental Superintendent

cc: Oliver Curran and Erik Madsen (Baffinland)
Stephen Bathory (QIA)
Phyllis Beaulieu (NWB)
Andrew Keim (AANDC)
Bevin LeDrew (Sikumiut Environmental Management)
Michael Johnson (North/South Consulting)
Tessa MacKay (Hatch)

Attachments:
Table 1 – Crossing Details
Drawing H349000-4138-10-035-0003 East Access Culverts - Quarry QMR2 Plan and Cross-Sections.
Drawing H349000-4138-10-012-0001 Quarry QMR2 East Access Roads Profiles
Drawing H349000-4138-10-035-0004 Quarry QMR2 East Access Roads Culvert Details

Table 1 Quarry QMR2 East Access – Proposed Culverts

Culvert ID (QMR2)	Culvert Location (NAD 83 Coordinates)		Culvert Configuration	Slope	Recommended Culvert Configuration	Regulatory Status of Crossing
	Northing	Easting				
No. 1	7913883	560149	2 x 1.0m diam Length: 18m	1.4%	Embed 1 culvert by 10% into existing ground to allow for potential fish passage. Second culvert placed at given elevation.	Potential Fish Habitat
No. 2	7913988	560167	2 x 1.0m diam Length: 18m	3.2%	Both culverts at the same elevation, embedment of culvert not required.	Not Fish Habitat
No. 3	7913714	560632	1 x 1.0m diam Length: 21m	0. 6%	Embedment of culvert not required.	Not Fish Habitat