



Fisheries and Oceans  
Canada

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*Our file*      *Notre référence*  
NU-11-0014

February 17, 2017

Nunavut Impact Review Board (NIRB)  
PO Box 1360  
Cambridge Bay, NU  
X0B 0C0

Dear NIRB:

**Subject:** Screening - Itivia Quarry Project

As directed by the NIRB in their letter dated January 30, 2017, Fisheries and Oceans Canada (DFO) is providing the following comments with respect to Agnico Eagle Mines Ltd (AEM) Itivia Quarry NIRB Screening.

DFO understands that the NIRB would like parties to provide comments regarding:

- 1) Whether the project proposal is likely to arouse significant public concern; and if so, why;

DFO is not aware of any significant public concern at this stage of review, and it is our understanding that AEM is currently requesting public comments through its Notice of Screening – Opportunity for Public Comment.

- 2) Whether the project proposal is likely to cause significant adverse eco-systemic or socioeconomic effects; and if so, why;

DFO is not aware of any significant eco-systemic or socioeconomic impacts associated with this Project proposal.

- 3) Whether the project is likely to cause significant adverse impacts on wildlife habitat or Inuit harvesting activities; if so, why;

While the Project is unlikely to result in significant adverse impacts, there is a potential for impacts to occur in fish habitat, the local fishery and therefore the Inuit harvesting activities resulting from blasting activities due to the proximity of the project to the marine environment. As such, DFO is requesting clarification on mitigation measures as outlined below.

- 4) 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);

Proponents are responsible for avoiding and mitigating *serious harm to fish* that are part of or support commercial, recreational or Aboriginal fisheries. In addition, since the project concerns the use of explosives near water and specifically within 31m of a marine water body DFO highlights some of the key mitigation measures to note further to those provided by AEM in Section 3.3 of their Itivia Quarry Main Application Document:

- No explosive is to be knowingly detonated within 500 m of any marine mammal (or no visual contact from an observer using 7x35-power binocular).
- No use of ammonium nitrate-fuel oil mixtures occurs in or near water due to the production of toxic by-products (ammonia).
- No explosive is to be detonated in or near fish habitat that produces, or is likely to produce, an instantaneous pressure change (i.e., overpressure) greater than 50 kPa in the swimbladder of a fish.

- 5) Any matter of importance to the Party related to the project proposal.

DFO has reviewed the Project proposal and requests that the Proponent provide more information as follows:

- a) AEM references keeping a standard 31m buffer between quarry activities and the shoreline. DFO requests AEM provide rationale for this distance and why it is sufficient in preventing harm to fish, fish habitat and marine mammals? As referenced above, DFO has guidelines outlining acceptable setback distances based on the amount of explosive used and pressure exerted.
- b) AEM references using ammonium nitrate in blasting activities. While the ammonium nitrate will not be stored at the quarry site, it is understood that it will be used in blasting activities at the quarry. Can AEM provide the specific plans for detonation and blasting activities including the following:
  - a. The maximum amount of holes drilled and used for blasting at any given time
  - b. The maximum total weight of explosive charge to be used at any given time
  - c. Will the explosive will be confined or unconfined?
- c) Currently in the NIRB Main Document Itivia Quarry, section 3.3 Marine Environment, the Environmental Setting is described as follows: “The quarry site is located nearby Melvin Bay which is connected to the Hudson Bay.” Can AEM provide further information regarding the marine environment in Melvin Bay? This would include fish species, marine mammals and habitat in the bay.
- d) Regarding the proposal, mitigation measures for the marine environment include promoting drainage, while also controlling run-off at the quarry site to avoid Melvin

Bay. Can AEM please provide clarification on drainage plans at the quarry site in order to ensure no deleterious substances reach Melvin Bay?

If you have any questions, please contact Laura Watkinson at (867) 669-4920, or by email at [Laura.Watkinson@dfo-mpo.gc.ca](mailto:Laura.Watkinson@dfo-mpo.gc.ca). Please refer to the file number referenced above when corresponding with the Program.

Sincerely,

A handwritten signature in black ink, appearing to read 'M. Curtis', with a large loop at the end of the last name.

Martyn Curtis  
A/Regional Manager, Regulatory Reviews  
Fisheries Protection Program

cc. Elizabeth Patreau – Sr. FPP Biologist DFO

References:

Cott, P. and Hanna, B. 2005. Monitoring Explosive-Based Winter Seismic Exploration in Waterbodies, NWT 2000-2002. Department of Fisheries and Oceans. Offshore Oil and Gas Environmental Effects Monitoring: Approaches and Technologies. P. 493-510.

Wright, D.G., and G.E. Hopky. 1998. Guidelines for the use of explosives in or near Canadian fisheries waters. Can. Tech. Rep. Fish. Aquat. Sci. 2107: iv + 34p.