



Fisheries and Oceans
Canada

Pêches et Océans
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July 10, 2009

DFO File : 03-HCAA-CA7-00191

Richard Dwyer
Licensing Administrator
Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU X0B 1J0

via email:
licensingadmin@nunavutwaterboard.org

Dear Mr. Dwyer:

Subject: Agnico-Eagle Mines Limited Meadowbank – Aquatic Effects
Management Program

Fisheries and Oceans Canada (DFO) has reviewed the Aquatic Effects Management Program (AEMP) and supporting documents for the Meadowbank Gold Project, proposed by Agnico-Eagle Mines Limited Meadowbank (AEM). On April 29, 2009, AEM submitted the AEMP to the Nunavut Water Board (NWB).

DFO's comments are based upon our departmental mandate under the *Fisheries Act*; specifically the management and protection of fish and their habitat. DFO's primary focus in reviewing proposed developments in and around fishery water is to ensure that the works and undertakings are conducted in such a way that the proponents are in compliance with the applicable provisions of the *Fisheries Act*.

DFO notes that the plan was to be prepared in consultation with the Department of Fisheries and Oceans, Environment Canada and Indian and Northern Affairs Canada; however, DFO was not involved nor consulted in the AEMP submission.

Section 2A: Habitat Compensation Monitoring

Section 2: Fish Habitat Compensation Monitoring

- As the Habitat Compensation Monitoring Plan – Mine, v1 May 2008 (HCMP) and the Tier 2 and 3 Habitat Compensation Monitoring Plan, v1 March 2009 (Tier 2 and 3 HCMP) both discuss the methods and decision criteria for Tier 2 and 3 monitoring, it is important that the information in the two plans are consistent with each other. The success criteria for Tiers 1 and 2 in the HCMP are slightly different than that in the Tier 2 and 3 HCMP.

- In the HCMP, the success criteria for Tier 1 is based on the comparison of water chemistry results from the Habitat Compensation Features (HCF) to reference locations, CCME water quality guidelines, risk-based toxicity reference values, and/or geochemistry model results. However, in the Tier 2 and 3 HCMP, the decision criteria for Tier 1 is briefly described as the comparison of the HCF water chemistry to the CCME (2006) water quality guidelines for the protection of aquatic life and to reference area chemistry. In each case, the guidelines vary from one to another which may result in a wide range of criteria. In order to ensure that the HCF will function as intended as described in the approved NNLP, the water quality should be within the natural variation of similar pristine habitat reference area chemistry. DFO recommends that AEM provide the reference locations and numerical criteria that will be used to determine success of Tier 1 monitoring.
- In the HCMP, the success criteria for Tier 2 is based on HCF samples not exceeding a 20% effect level relative to reference performance. However, the Tier 2 and 3 HCMP provides greater detail in the methods of determining success. DFO recommends that the HCMP be revised to reflect the decision criteria details provided in the Tier 2 and 3 HCMP.

Section 3C: Water Quality Monitoring Plan for Dike Construction and Dewatering
v2 March 2009 (WQMP)

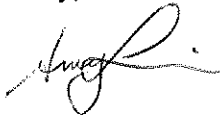
- In section 4.1 of the WQMP, it states that the proposed turbidity barriers for the north and south sections of the dike will be extended to the bottom of the lake, except for openings shown in Figure 2. It is not clear how extending the silt curtain to the bottom of the lake will be effective in mitigating impacts to fish habitat. DFO requests clarification on whether the silt curtains will be anchored to the bottom of the lake and how providing openings within the barrier will be effective in ensuring that the *Fisheries Act* is not violated.
- Section 4.2 Standard Operating Procedures, element 3: mentions the sampling locations for the Bay-Goose dike are to be designed similar to the East dike locations. DFO recommends that the sampling locations be mapped and sent to the regulators prior to the start of construction.
- Section 4.2 Standard Operating Procedures, element 8: DFO recommends that AEM also contact the regulators to advise them in the situation when the 7 – day moving average exceeds the Maximum Monthly Mean (MMM).
- Section 4.2 Standard Operating Procedures, element 9: DFO recommends that AEM stop construction once the 30-day moving average is exceeded, assess the situation and contact the regulators to discuss what actions are going being taken to resolve the issue prior to resuming construction.

- Section 5.1.1 Standard Operating Procedures, element 8: DFO recommends that AEM also contact the regulators to advise them in the situation when the 7 – day moving average exceeds the Maximum Monthly Mean (MMM).

Generally, the AEMP identifies the various individual monitoring plans required by Fisheries Act authorizations or various license conditions. An integrated framework that links the various requirements should be further developed.

If you have any questions concerning the above, please contact the undersigned by telephone at (905) 639-8236, by fax at (905) 639-3549, or by email at amy.liu@dfo-mpo.gc.ca.

Sincerely,



Amy Liu
Habitat Management Biologist
Fisheries and Oceans Canada
Eastern Arctic Area

Copy: Eric Kan - Fisheries and Oceans Canada
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