



Fisheries and Oceans
Canada

Pêches et Océans
Canada

Eastern Arctic Area

P.O. Box 358
Iqaluit, NU X0A 0H0
Phone: (867) 979-8000
Fax : (867) 979-8039

Secteur de l'Arctique de l'est

Boîte postale 358
Iqaluit, NU X0A 0H0
Tél: (867) 979-8000
Télécopieur: (867) 979-8039

NWB File: 2AM-MEA0815
DFO File : 03-HCAA-CA7-00191

July 10, 2009

Richard Dwyer
Licensing Administrator
Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU X0E 1J0

via email:
licensingadmin@nunavutwaterboard.org

Dear Mr. Dwyer:

Subject: Review of the 2008 Annual Report from Agnico-Eagle Mines Limited for the Meadowbank Gold Project – Water Licence 2AM-MEA0815

Fisheries and Oceans Canada (DFO) would like to thank the Nunavut Impact Review Board (NIRB) for the opportunity to review the 2008 Annual Report for the Meadowbank Gold Project, provided by Agnico-Eagle Mines Ltd (AEM). DFO provides comment on the Annual Report.

The Annual Report as a summary document to report activities during the past year includes a significant amount of information. Overall, efforts to improve the readability for all parties would improve the ability for review. For example, the Report should include the insertion of figures and tables within the appropriate sections of the report rather than attaching figures and tables as appendices. An alternative for the adobe acrobat document is to include a link within the text to the figures or tables so that one could go back and forth between text and figures. This would also provide more certainty since a number of the Figures are not labeled.

Comments provided pertaining to specific sections of the Report are described below.

2008 Annual Report

Section 2.1.2 and 2.1.3 East Dike Construction Evaluation:

Canada

The reporting of issues with TSS and turbidity levels in the lakes related to construction of the East Dike is located in section 2.1.3 of the Annual Report and in Appendix A2 of the Report.

It is noted that there may be minor editorial issues with dates as presented in the first paragraph on Page 6 where it is stated that "Construction resumed on the 12th with a modified construction sequence, and on August 11th construction was again suspended for the morning".

DFO notes that the Dike Review Board in "Report No. 1" (Appendix A1) identified that TSS levels increased during rockfill placement and with wave action and currents, a plume escaped from the turbidity barriers, such that TSS was out of compliance.

DFO concurs with the recommendation to develop a plan for sediment removal and disposal in advance of rockfill placement for future in-lake dike construction. As well, contingencies should be developed to ensure compliance well in advance of future construction activities.

In the Appendix A2, report entitled "Aquatic Effects Monitoring Program – Targeted Study Dike Construction Monitoring 2008", dated March 2009, twelve stations were selected for water quality sampling to assess the effects from the construction of the East dike. Water quality is an important factor in ensuring that fish habitat is maintained. As the monitoring stations were selected on a case-by-case basis to provide adequate coverage of the plume, it is important to note that future water quality and TSS sampling stations should include all routine monitoring sampling stations, specifically to include high value habitat stations. For the East dike construction sampling, water quality was sampled in twelve locations as shown in Figure 2-24 which did not appear to include the high value habitat stations.

Section 7.1.1 Construction Activities Monitoring

Figure 3: Mine Sampling Stations which identifies the location of the water quality monitoring stations should have been included within this section rather than appended to improve readability of the report. In addition, the delineation of the water quality sampling stations could have been improved on the Figure.

Section 7.1.12 Blasting Activities

In the following DFO's Intervention Comments during the Meadowbank Gold Mine project public hearings:

- DFO Intervention Comments to the Nunavut Impact Review Board, Baker Lake, Nunavut, dated March 27-29, 2006; and,

- DFO Technical Comments for the Nunavut Water Board Technical Meeting and Pre-Hearing Conference, Type A Water License Application, dated February 18, 2008

DFO advised the proponent that in the north, a more protective overpressure threshold of 50kPa is used in order to take the intensifying effects of ice into consideration. In the 2008 Annual Report, section 7.1.12, AEM has used an overpressure measurement of 100kPa. DFO recommends that future overpressure monitoring use a threshold criteria of 50kPa. DFO acknowledges that in each case that the peak particle velocity concentrations exceeded DFO's criteria, a refinement to the blasting procedures were immediately made. DFO recommends that the refinement strategies be described in detail.

Appendix B1: 2008 Geochemical Characterization Study All-Weather Private Access Road (AWPAR) and Airstrip Quarries

AEM recommends that further water quality sampling should be conducted in 2009 of all ponded and flowing water at the 22 AWPAR quarry sites and at the Meadowbank mine site. DFO has no objections to these recommendations as it monitors contaminant levels in the ponded or flowing water in contact with quarries or the mine site. As the flowing or ponded water may be able to reach fish-frequented waterbodies, it is important that the contaminant levels continue to be monitored to ensure that there is no impact to fish or fish habitat.

Appendix C2: 2008 Annual Geotechnical Inspection

DFO concurs with the recommendation to repair and maintain silt fencing where necessary as identified on Page 6, Section 2.4 of "2008 Annual Geotechnical Inspection" report by Golder Associates. DFO observed a silt fence that was ineffective at Bridge 5 during a recent site visit on June 27, 2009. In addition, the appropriate installation of silt fences to prevent "fines" from entering the waterbodies would also be beneficial to minimize impacts from increased TSS, turbidity and potential metals to fish and fish habitat.

Appendix C3: All-Weather Private Access Road (AWPAR) Fisheries Monitoring Report, 2008

In DFO's *Fisheries Act* authorization number 03-HCAA-CA7-000-000109, the description of works or undertakings includes authorizing the harmful alteration, disruption, or destruction of fish habitat resulting from the watercrossing installation at R19. DFO acknowledges that in the report entitled, "All-Weather Private Access Road (AWPAR) Fisheries Monitoring Report – 2008", prepared by Azimuth Consulting Group Inc., dated March 2009, watercrossing R19 was relocated due to the road realignment to avoid impact to fish and fish habitat and a clear span bridge was installed. Thus, DFO has no objections with the monitoring conducted at crossing R19 as detailed in the Fisheries Monitoring Report.

7.1.11 Receiving Environment Monitoring Report 2008-Aquatic Effects Management Program

As mentioned previously, this report would be improved if figures or linkages to figures and tables were included within the text. As well, figures that show summary results from previous years data collection to compare with current year results should be provided. This should definitely be a component for subsequent reports.

7.2 Fish - Out Program Summary

It appears that a comprehensive survey and fish out were conducted with the collection of quality data. DFO will be able to complete the analysis upon receiving an electronic data submission and once the habitat mapping exercise is completed in the northwest arm of Second Portage Lake after water withdrawal.

7.3.3 Creel Survey Results

During the final hearings, AEM committed to engaging the HTOs in the development, implementation and reporting of creel surveys within waterbodies affected by the project. DFO recommends that AEM provide the design for the creel survey that has been conducted in the past two years. DFO recommends that future surveys include the collection of specific meristic and morphometric characteristics such as length and weight of fish if this has not been collected, to facilitate the determination of fish population characteristics.

If you have any questions concerning the above or need clarification, please contact myself by telephone at (905) 639-8236, by fax at (905) 639-3549 or 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
Rachel Gould – Agnico-Eagle Mines Ltd.
Stéphane Robert - Agnico-Eagle Mines Ltd.
Anne Wilson – Environment Canada