



Fisheries and Oceans
Canada

Pêches et Océans
Canada

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Fish and Fish Habitat Protection Program
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June 20, 2022

Your file Votre référence
NIRB 125515 / 11MN034

Our file Notre référence
11-HCAA-CA7-00014

Nunavut Impact Review Board
Attn: Emily Koide
Technical Advisor I
PO Box 1360 (29 Mitik Str.)
Cambridge Bay, NU
X0B 0C0

Via email to : info@nirb.ca

**Subject: Comment Request for Agnico Eagle Mines Limited's Meliadine Gold
 Mine Project 2021 Annual Report**

Dear Emily Koide,

The Fish and Fish Habitat Protection Program (the Program) of Fisheries and Oceans Canada (DFO) received your request for comments on May 04, 2022. DFO has reviewed the above 2021 Annual Report in regards to its mandate, i.e. the management, protection and conservation of fish and their habitats. The Nunavut Impact Review Board (NIRB) invited parties to respond to the following topics:

1. Effects monitoring
 - Whether the conclusions reached by Agnico Eagle Mines in the 2021 Annual Report are valid; and
 - Any areas of significance requiring further supporting information or any changes to the monitoring program which may be required.
2. Compliance monitoring
 - Provide a summary of any compliance monitoring and/or site inspections undertaken in association with the Project, including specifically;
 - Identify the terms and conditions from the Project Certificate which have been incorporated into any permits, certificates, licences or other approvals issued for the Project, where applicable;
 - A summary of any inspections conducted during the 2021 reporting period, and the results of these inspections; and
 - A summary of Agnico Eagle's compliance status with regards to authorizations that have been issued for the Project.

Specifically, DFO has reviewed the 2021 Annual Report and Appendices 16 - 2021 Reportable Spills, 18 - 2021 AEMP Report, 22 - 2021 Blast Monitoring Memo, and 30 -

2021 Marine Mammal and Seabird Observation Report. Performance on Project Certificate Terms and Conditions 30, 31, 33 and 34 (Freshwater Aquatic Environment); and 76, 77, 78, 79, and 80 (Marine Wildlife) were incorporated under DFO's review of the 2021 Annual Report.

DFO provides the following comments for the NIRBs consideration:

1. Effects Monitoring

DFO is generally agreeable with Agnico Eagle Mine's reporting and has the following comments or concerns to provide at this time related to effects monitoring.

1.1. DFO has concerns regarding the increasing trend in productivity, increase in metals in the sediment, and change in invertebrate density in the East Basin of Meliadine Lake, as well as changes in fish sizes relative to previous years' sampling. Agnico Eagle has stated that it is unclear if the increased productivity trend in the East Bay is natural or mine influenced, but it seems unlikely that increases in productivity are not related to effluent discharge. Although the AEMP has not noted any adverse effects to aquatic life due to the effluent releases, DFO is concerned with cumulative impacts and the long-term potential impacts on fish and fish habitat.

1.1.1. DFO recommends the monitoring program is revisited to ensure that potential changes to fish and fish habitat are effectively monitored and potential mitigations can be implemented to avoid adverse impacts to the aquatic environment, as necessary.

1.2. DFO has concerns regarding the efficacy of the Marine Mammal Observations protocol to detect marine mammals and avoid impacts from shipping.

1.2.1. DFO recommends that Agnico Eagle meets with DFO to discuss the monitoring effort for Marine Mammal Observations to ensure the robustness of the survey design.

2. Compliance Monitoring

2.1. No compliance monitoring or site visits were conducted by DFO in 2021.

2.2. In 2021, Agnico Eagle expressed concern for safety during operations due to steep slopes at the Tiriganiaq 01 pit and the close location to existing natural ponds. As a result of those concerns, Agnico Eagle proposed to dewater the ponds and modify the slopes in Tiriganiaq 01 pit for safer working conditions. The safety concerns are not identified in the 2021 Annual Report.

2.2.1. DFO recommends that the monitoring that identified the safety concerns and the subsequent plan to address the concerns be added to the Annual Report.

2.3. In reference to an infill of fish habitat unauthorized by DFO and the construction of a Laydown Pad at pond J6; Section 6 (page 59) states that "No fish were found in J6". DFO would like to identify that past sampling events (as per the 2014

FEIS) captured Ninespine Stickleback in waterbodies upstream and downstream of Pond J6, indicating that Pond J6 is frequented by fish.

- 2.3.1. DFO identifies that Pond J6 was partially infilled during 2021, which resulted in a barrier to fish passage, and as yet, unquantified effects on fish and fish habitat.
- 2.3.2. DFO is currently working on the issue and is planning a site visit in summer of 2022. Additional monitoring may be required to determine the adverse effects of the infill and barrier to fish passage from the ponds J4 and J5 up through Pond J6 to pond J7.
- 2.4. DFO has received multiple reports of TSS exceedances at the Meliadine site. DFO will examine the situation when visiting the site to ensure proper mitigation measures are in place.

The proponent is in compliance with the terms and conditions that pertain to DFO's mandate. DFO will continue to work with the proponent to ensure compliance.

If you have any questions with the content of this letter, please contact Paul Harper by email at paul.harper@dfo-mpo.gc.ca. Please refer to the file number referenced above when corresponding with the Program.

Yours sincerely,



José Audet-Lecouffe
Senior Biologist
Fish and Fish Habitat Protection Program
Fisheries and Oceans Canada

CC:

Alasdair Beattie, Fisheries and Oceans Canada
Paul Harper, Fisheries and Oceans Canada