



Fisheries and Oceans  
Canada

Pêches et Océans  
Canada

Central and Arctic Region  
1028 Parsons Road SW  
Edmonton, AB  
T68 0J4

July 18, 2019

Your files    Votre référence  
2AM-WTP1826

Our file    Notre référence  
16-HCAA-00370

Richard Dwyer  
Manager of Licensing  
Nunavut Water Board (NWB)  
P.O. Box 119  
Gjoa Haven, NU X0B 1J0

Dear Richard Dwyer,

**Subject: Fisheries and Oceans Canada's Information Requests (IRs) regarding Licence No. 2AM-WTP1826; Amendment Application by Agnico Eagle Mines Ltd.; Whale Tail Pit Mine and Haul Road.**

The Fish and Fish Habitat Protection Program of Fisheries and Oceans Canada (DFO-FFHPP) would like to thank the Nunavut Water Board (NWB) for the opportunity to provide comments on Agnico Eagle Mines Ltd.'s (AEM) Type "A" Water Licence amendment application for the Whale Tail Pit Mine and Haul Road (the Project), Licence No. 2AM-WTP1826, and consequential amendments of the Licences 2AM-MEA1526 and 2BB-MEA1828.

As outlined in your request dated June 4, 2019, and email dated June 12, 2019, DFO-FFHPP understands that the NWB requests that interested parties:

- 1) *"... review the Application and supplemental information for completeness, and conduct an initial technical assessment, including identifying any Information Requests (IRs)"*

DFO-FFHPP has reviewed the Type "A" Water Licence amendment application and supporting documents in accordance with its mandate to maintain the sustainability and ongoing productivity of commercial, recreational and Aboriginal fisheries. DFO-FFHPP provides the following comments and Information Requests:

- a) As part of the Nunavut Impact Review Board's (NIRB) ongoing assessment of AEM's proposed "Whale Tail Pit Expansion" project proposal (NIRB File No: 16MN056), DFO noted potential impacts of widening the haul road on fish passage. DFO-FFHPP acknowledges that AEM has provided additional information in response to Technical Comments submitted to the NIRB (e.g. minimum/ maximum flow, fish size/swimming

speed) that were used to inform the sizing of the proposed culvert upgrades to ensure fish passage. However, review of this additional information is still underway. DFO-FFHPP will provide updated comments and recommendations as part of the final submission to NIRB; the final submission will inform DFO-FFHPP's follow-up technical comments for the ongoing NWB process.

- b) DFO-FFHPP notes missing / inconsistent values related to the accounting of volumes from freshwater sources, in particular, Nemo Lake. In the Main Application Document, Table 1.1-1 Definition of Scope, under Freshwater "Expansion of the Whale Tail Pit Operations (May 2019)" it states: "*Freshwater and potable water use approved under Water Licence 2AM-WTP1826 will extend to 2025. No increase in the freshwater use per year is required for the Expansion Project during the construction, operation and construction phases*" (emphasis added). In the Water Management Plan, Section 3.1.5.1 Freshwater Management it states: "*Agnico Eagle suggests with a projected increase in on-site staff in 2022 to 544 people for the Expansion Project, the existing authorized volumes from Nemo Lake should be adequate.*"

However, in Appendix H.1 Whale Tail Pit - Expansion Project 2019 Mean Annual Water Balance Update (May 2019), Section 3.4 Consumptive Flows, under "Camp Use" it states: "*77.8 m<sup>3</sup>/day from January 2018 to December 2020. This increases to 192 m<sup>3</sup>/day from January 2021 to the end of operations. Sourced from Whale Tail Lake (South Basin) until the end of August 2018; and Sourced from Lake C38 (Nemo Lake) from September 2018 to the end of operations*" (emphasis added). Section 4.0 Updates to the Water Balance also indicates that the increase to 192m<sup>3</sup>/day is: "*To accommodate increased camp capacity during operations.*" Further, in the Main Application Document, Table 1.2-2 Summary of Freshwater Sources, under Nemo Lake "Camp Use" the daily volume is stated as 78m<sup>3</sup>/day for both Construction (2018) and Operations (2019-2025), without mention of the increase to 192m<sup>3</sup> from January 2021 to the end of operations. DFO-FFHPP submits that the increase to 192m<sup>3</sup> for the time specified results in changes to the annual total water use for Nemo Lake such that use exceeds the conditions in Part E.1 of the existing Water Licence: "*The use of Waters from Nemo Lake, for all purposes, shall not exceed a total of one hundred seventy five thousand (175,000) cubic metres per year from the Licence approval date for construction.*" Table 1.2-2 indicates the annual total volume required from Nemo Lake during Operations (2019-2025) ranges between 137,767 to 170,609m<sup>3</sup>/year. The addition of another 41,610m<sup>3</sup>/year from January 2021 to the end of operations in 2025 leads to an exceedance of 179,377 to 212,219m<sup>3</sup>/year.

Further, in Appendix H.1 Whale Tail Pit - Expansion Project 2019 Mean Annual Water Balance Update (May 2019), Section 3.4 Consumptive Flows it states: "*Drilling water for open pits: 48.0 m<sup>3</sup>/day from the initiation of the Whale Tail Pit to December 2018; 24.0 m<sup>3</sup>/day from January 2019 to June 2019; and 48.0 m<sup>3</sup>/day from July 2019 to the end of operations.*" However, in the Main Application Document, Table 1.2-2 under Nemo Lake "Drilling Water - Pits", the volume of 24-48m<sup>3</sup>/day is only present under Construction (2018), whereas the range of volumes increases to 36-96m<sup>3</sup> for Operations (2019-2025). DFO-FFHPP is not clear which drilling water volumes are most current / accurate, given both documents are dated May 2019.

Overall, additional clarity regarding calculation of withdrawal amounts will assist with assessment of the accounting of freshwater requirements. This is also assist in DFO-FFHPP's assessment of potential impacts of water withdrawal from ice-covered waterbodies.

DFO-FFHPP recommends AEM:

- i. Update the Main Application Document Table 1.2-2 to ensure all values are up-to-date, with the annual and total freshwater requirements for all waterbodies recalculated;
  - ii. Modify Table 1.2-2 to clearly indicate where differences in daily / annual / total amounts between the original application and the amendment application have occurred (e.g. provide original volumes in parenthesis in appropriate cells);
  - iii. Update all Management Plans and Supporting Documents to ensure consistency regarding water withdrawal values and timeframes; and,
  - iv. Clarify how proposed annual and total water withdrawals relate to under ice volume for Nemo Lake
- c) In the Main Application Document, Table 1.1-1 Definition of Scope, under Freshwater "Expansion of the Whale Tail Pit Operations (May 2019)" it states: "*A source was added to allow operational geological drilling. Water to be taken in small lakes/pond proximal to drilling sources.*" In Table 1.2-2 Summary of Freshwater Source Requirements, under "Other - Small Lakes/Ponds proximal to drilling sites - Operational Geological Drilling" for Operations (2019 to 2025) it is estimated that the daily usage is 299m<sup>3</sup>/day, with an annual usage of 109,135m<sup>3</sup>.

DFO-FFHPP recommends AEM:

- i. Provide / clarify the locations of small lakes / ponds proximal to drilling sources used as freshwater sources for operational drilling;
  - ii. Provide information respecting the potential fish-bearing status (or connection to fish-bearing watercourses) of the source lakes/ponds; and
  - iii. Provide details / calculations used to inform the daily estimate of 299m<sup>3</sup>
- d) In the Main Application Document, Section 1.2.2.1 it states: "*Explosives management and blasting practices will be consistent with practices in place for the Approved Project.*" In the FEIS Addendum, Table 3.4-2 it states: "*Haul road widening activities are not currently expected to include blasting. Should blasting be required, results from modelling completed for the Expansion Project indicate that noise and vibration will be well below the Ontario Noise Pollution Control Publication (NPC) 119 limits and DFO Guidance for Use of Explosives In or Near Canadian Fisheries Waters at the LSA boundary, and blasting should not occur within 101 m of areas used for fish spawning or within 22 m of fish habitat.*" In Section 4.4.3.3.2, Blasting Noise and Vibration Sources it further clarifies: "*Both of these setback distances were calculated using empirical formulae from the DFO guidance document (DFO 1998) (Volume 4, Appendix 4-E). Consistent with the Approved Project, blasting will be carefully managed and monitored in the context of DFO limits and appropriate setbacks will be established.*"

DFO notes that since the release of the “*Guidelines for the Use of Explosives In or Near Canadian Fisheries Waters*” (1998) a more recent document “*Monitoring Explosive-Based Winter Seismic Exploration in Waterbodies, NWT 2000-2002*” (Cott and Hanna, 2005) provides guidance on use appropriate instantaneous pressure change thresholds. DFO further notes that a requirement of the *Fisheries Act* Authorization for the Whale Tail Pit (16-HCAA-00370) specifically refers to guidance provided in Cott and Hannah (2005): “2.3.3: *The Proponent shall develop a blasting mitigation plan in consultation with DFO to ensure effects on fish and fish habitat are minimized, as per Nunavut Impact Review Board Project Certificate No. 008 Condition 22 The blasting mitigation plan shall be submitted to DFO prior to construction for approval, and shall adhere to the guidance provided in the Monitoring Explosive-Based Winter Seismic Exploration in Waterbodies, NWT200-2002 (Cott and Hanna, 2005).*”

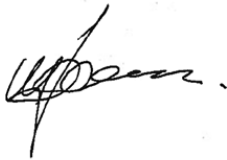
DFO-FFHPP recommends that AEM:

- i. Clarify how the setback distances of 22m and 101m relate to guidance provided in *Monitoring Explosive-Based Winter Seismic Exploration in Waterbodies, NWT 2000-2002*” (Cott and Hanna, 2005).
- 2) DFO-FFHPP also understands that the NWB requests that interested parties: “...*comment on the type of Technical Meeting-Pre-Hearing Conference to be held for the Application (written, teleconference, or in person...)*”

DFO-FFHPP recommends that the NWB Technical Meeting and Pre-Hearing Conference be held in person. In person meetings are recommended because it would allow intervening parties, Agnico Eagle Mines Ltd. and NWB staff to have more wholesome and productive discussion to address issues related to the Whale Tail Pit Mine and Haul Road.

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

Sincerely



Marek Janowicz  
Regional Manager, Regulatory Review, Mining and Linear Developments  
Central & Arctic Region  
Fisheries and Oceans Canada

cc: Mark D'Aguiar, DFO-FFHPP  
Boyan Tracz, DFO-FFHPP