

April 15, 2025

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

**RE: *Meliadine Mine Updated Management Plans 2AM-MEL1631***

Dear Mr. Dwyer,

Agnico Eagle Mines Limited (Agnico Eagle) thanks the Nunavut Water Board (NWB) for the opportunity to address comments received for Agnico Eagle's Meliadine Gold Mine updated Management Plans submitted on February 7<sup>th</sup>, 2025 as per Part B, Item 14 of the amended Water Licence 2AM-MEL1631.

The following information and comments are intended to address comments 1 and 3 outlined in the below referenced letter:

250402 2AM-MEL1631 Updated Management Plans AEM Response ECCC Reply-IMLE

Should you have any questions or require further information, please do not hesitate to contact us.

With my best regards,



**Jade Robitaille** | Compliance Counselor  
jade.robitaille@agnicoeagle.com | Direct 819.759.3555 x4603202 |  
Agnico Eagle Mines Limited - 93, rue Arseneault, Suite 202 - Val d'Or,  
Quebec, Canada J9P 0E9  
[agnicoeagle.com](http://agnicoeagle.com)     

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**Environment and Climate Change Canada (ECCC)**

**ECCC-1: SLUDGE MANAGEMENT IN WATER MANAGEMENT PLAN**

**Comment**

The Proponent provided information on the assumed solids contents of sludge from the future Saline Effluent Treatment Plan (SETP). They also stated there are two versions of the Water Balance and Water Quality Model (WBWQM): operational and water licence amendment (WLA). The response states that though the WLA model does not consider sludge inputs, the operational model does. Though it is expected that quantities and flows in an operational WBWQM would be updated more frequently to incorporate dynamic site conditions, all sources and sinks should be included in the WBWQM and shared through the Nunavut Water Board for reviewers to understand how water is being managed. If the operational model already incorporates sludge volumes, this information should be able to be provided to reviewers.

The Proponent will provide further details on the sludge produced by the ammonia treatment train of the future SETP once they are known, but no timeline has been specified. Since saline water production is ongoing, saline pond capacity is limited and treatment is required prior to discharge, the timing of SETP construction and commissioning has an incidence on saline water management on site that should be reflected in the WBWQM.

**Recommendations**

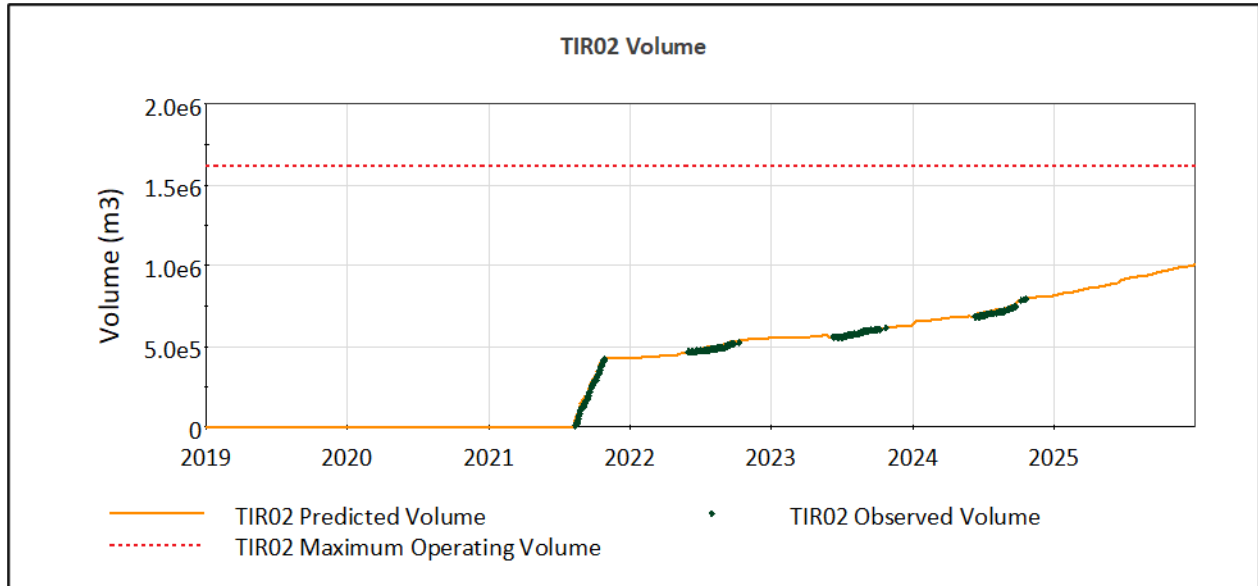
ECCC recommends the Proponent provide a WBWQM that accounts for sludge deposition in the saline water storage ponds. Additionally, they should provide a timeline for discharge of saline water to Itivia Harbour through the SETP and waterline, to be incorporated in the WBWQM.

**Agnico Eagle Answer**

Agnico Eagle confirms that sludge discharged quantity and impact on water quality are included in the Operational WBWQM results presented in the 2024 Annual report.

The waterline operation presented in the WLA WBWQM assumes a commissioning in 2025 with a seasonal discharge window from June 20 to September 29. However, construction of the waterline will continue in 2025 and thus this assumption will be revised in the next update and submission of the model.

However, assuming these delays, the forecast of the saline water storage in Tiriganiaq Open Pit 2 (TIRI02) of the WLA WBWQM is anticipated to closely reflect the projections of the Operational WBWQM in 2025. Saline water storage in TIRI02 is forecasted to reach 1,005,000 m<sup>3</sup> at the end of 2025, leaving 611,500 m<sup>3</sup> of storage capacity (see figure below).



***TIR02 observed and predicted volumes from the Operational WBWQM.***

Agnico Eagle commits to update the current Operational and WLA WBWQMs to combine them into a single WBWQM. This WBWQM update will be conducted and provided to regulators within the 2025 Annual Report. The model update will present the expected discharge of saline water to Itivia Harbour through the SETP and waterline, and capture potential impacts of sludge quantity and quality on receiving storage containment.

Agnico Eagle remains available to further discuss this matter with ECCC.

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**ECCC-3: ADDITION OF NEW PENINSULA LAKES IN AQUATIC EFFECTS MONITORING PROGRAM  
DESIGN PLAN**

Comment

The Proponent is delaying their commitment to add a second new peninsula lake (other than Lake E3) to a further iteration of the Aquatic Effects Monitoring Program (AEMP) Design Plan. They are also proposing to study Lake A1, instead of the lakes discussed as possibilities at the Public Hearing, Lakes G2 and H1. Though limited data is available on Lake A1, its surface area, location relative to project components, and availability of Final Environmental Impact Statement (FEIS) predictions make the lake a reasonable monitoring candidate. It will be important for the Proponent to follow through on their commitment to conduct additional water quality monitoring on Lake A1 in 2025 if it is to be integrated in the AEMP Design Plan prior to dewatering Lake B7.

Recommendation

ECCC recommends that the Proponent ensure additional monitoring is conducted in time for it to be integrated into the AEMP design plan prior to any dewatering activities.

Agnico Eagle Answer

Agnico Eagle thanks ECCC for their comment and reiterates its commitment to conduct additional water quality monitoring in Lake A1 in 2025.