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NUNAVUT WATER BOARD  
NUNAVUT IMALIRIYIN KATIMAYINGI  
OFFICE DES EAUX DU NUNAVUT

**File: 2AM-WTP1830/G1**

August 06, 2024

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**RE: Licence No: 2AM-WTP1830 Type A; Whale Tail Pit Project, Agnico Eagle Mines Limited; Modification - Pushback of the IVR Pit, Continuation of the Whale Tail Underground, and Expansion of the Approved Whale Tail Ore Stockpile No. 3**

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Dear Jamie Quesnel and Colleen Prather:

On May 6, 2024, the Nunavut Water Board (NWB or the Board) received a request by Agnico Eagle Mines Limited (Agnico Eagle or Licensee) for a Modification (Request) to Water Licence No: 2AM-WTP1830 (Licence) issued to Agnico Eagle for the Whale Tail Pit Project (Project). In the Request, the Licensee sought the Board's approval for pushback of the IVR Pit, continuation of the Whale Tail underground, and expansion of the approved Whale Tail Ore Stockpile No. 3. The Request included the *Whale Tail Mine – Water Management Plan*, Version 13, dated May 2024, and the *Whale Tail Mine – Waste Rock Management Plan*, Version 13, dated May 2024.

The NWB notes that the Nunavut Planning Commission (NPC) issued its determination on April 19, 2024, stating that the previous conformity determinations dated July 12, 2002, July 21, 2003, March 10, 2011, October 15, 2015, July 16, 2015, October 16, 2018, April 20, 2021, and May 26, 2023 still apply. The NPC also indicated that the activities were previously reviewed by the Nunavut Impact Review Board (NIRB) and the current Request is exempt from screening by the NIRB as the proposed activities do not change the scope of the original or previously amended project activities.

On May 6, 2024, the NWB distributed the Request for review with the deadline for comments set for June 10, 2024. On May 24, 2024, Crown-Indigenous Relations and Northern Affairs (CIRNA) suggested that the plans submitted with the Request shall be updated with proper document control and redistributed for review. On May 28, 2024, the NWB acknowledged receipt of updated plans and provided them to the Interveners. CIRNA requested an extension in the deadline to June 26, 2024, which the Board granted. On July 2, 2024, CIRNA requested

another extension to July 12, 2024. The Board granted an extension to July 9, 2024. On or before July 9, 2024, the NWB received the results of the review<sup>1</sup> from the Environment and Climate Change Canada (ECCC), and CIRNA. Agnico Eagle responded to the Interveners' recommendations on July 12, 2024. An updated *Whale Tail Mine – Water Management Plan*, Version 13, dated July 2024, was also submitted as part of their response.

### **Summary of Recommendations**

ECCC provided the following recommendations:

- Flooded Pit Water Quality – ECCC recommended that the Water Management Plan be updated to acknowledge that monitoring results must demonstrate flooded pit water quality consistently meets water quality objectives for a sufficiently long duration and that water quality has stabilized or is improving prior to reconnection.
- Sewage Treatment – ECCC provided the following recommendations regarding the water quality model:
  - Ongoing sewage treatment plant challenges in meeting treatment targets for nitrate and phosphorus should be reflected in the source term development.
  - Consider the potential for attenuation pond sediments to accumulate parameters and release these parameters into the receiving environment following reconnection to surface waters. Parameters should include, but not be limited to, phosphorus and arsenic.
  - Consider how removal of attenuation pond sediments would affect the water quality predictions during operations, closure and post-closure.
  - Review and update the model, as appropriate, to incorporate the above recommendations.
- Water Quality Predictions – The Water Management Plan presents figures illustrating the predicted water quality concentrations of phosphorus and arsenic. Figures depicting concentrations in pit lakes, attenuation ponds and treated effluent present the ELOM model only. ECCC recommended that comparison figures depicting concentrations in pit lakes, attenuation ponds and treated effluent for the ELOM model as compared to the 2018 FEIS model be provided.
- Mis-labelling Correction – ECCC recommended that the Proponent review the title of Figure 6-2 in Appendix C (Whale Tail Water Balance and Water Quality Report) and correct the mis-labelling as needed.

### **Agnico Eagle's Response**

- “Agreed as per noted “...*dikes will not be breached until the water quality in the flooded area meets the approved water quality objectives*” which will be addressed in the Final Closure Plan”.
- “Measured average effluent concentrations of both parameters [Nitrate and Phosphorous] from 2020/2021 were used as inputs to the WBWQM [Site-side Water Balance and Water Quality Model]. This results in an 11% and 52% increase in predicted Operations average

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<sup>1</sup> Environment and Climate Change Canada (ECCC), dated June 26, 2024; Crown-Indigenous Relations and Northern Affairs (CIRNA), dated July 9, 2024.

IVR Attenuation Pond (primary receiver of STP [Sewage Treatment Plant] effluent) concentrations of nitrate and phosphorus, respectively (Table 2-2 and Figure 2-1), noting that predicted phosphorus concentrations remain well below the NWB Water Licence limit of 0.3 mg/L”.

- “To address this potential pathway [attenuation pond sediments accumulating parameters and then releasing to receiving environment] for contaminant release, a diffusive flux model was completed for WT AP [Whale Tale Attenuation Pond] in closure. The calculations used operations results, which assumed elevated WTP [Water Treatment Plant] effluent concentrations throughout operations”.
- “Overall, the additional loadings result in minimal change to predicted water quality. The largest increase occurs for P, which increases by 8% but remains below site water quality objectives. This shows that removal of AP sediments at the end of operations would have a minimal influence on closure water quality”.
- “The requested comparisons between the ELOM model predictions presented in Appendix C and 2018 FEIS model predictions are provided. These comparisons are provided for 2024-2025, which defines the overlapping period with the 2018 FEIS mine plan, for arsenic and phosphorus”.
- The mis-labelling was corrected in Appendix C Figure 6-2.

CIRNA provided the following recommendations:

- Water Management During Closure – CIRNA recommended to reintroduce table 3.8 from Version 12 and update the section based on the new information presented in Version 13 of the Water Management Plan. The new table in Version 13 lacks details about management activities and the sequences to the beginning and last few years of active closure.
- Flooding Sequence – CIRNA recommended to reintroduce “Section 3.10.1 Flooding Sequence” from Version 12 and update the section based on the new information presented in Version 13 of the Water Management Plan.

#### Agnico Eagle’s Response

- Agnico Eagle has reinstated Table 3.8 for key water management activities and sequencing during closure in Section 3.10 of the Water Management Plan, which is provided in Appendix A of this response package.
- Section 3.10.1 Flooding Sequence has been removed; however, the information is provided in the table reinstated back to Section 3.10, as referenced in response to CIRNA-R-1.

By July 22, 2024, the parties provided their feedback on the Licensee’s response. CIRNA confirmed they are satisfied with the response and has no further comments. ECCC, however, provided additional comments as follows:

- ECCC’s recommendation for water quality objectives to be met for a sufficiently long duration where water quality is demonstrated to be stable or improving, has not been acknowledged. ECCC recommended to update the Water Management Plan acknowledging that monitoring results must demonstrate flooded pit water quality consistently meets water quality objectives for a sufficiently long duration and that water quality has stabilized or is improving prior to reconnection.

- ECCC noted that additional context would be helpful to aid in interpretation, specifically related to arsenic in the IVR Pit and recommended that additional discussion be provided on specifically which changes in the modelling approach, assumptions, or to the source terms lead, to this increase in predicted arsenic concentrations at IVR Pit.

In response to ECCC's second round of comments, Agnico Eagle provided an updated *Whale Tail Mine – Water Management Plan*, Version 13.1, dated July 2024, along with their response:

- The Water Management Plan is drafted to ensure compliance with Part E Item 9 and Item 8 of the Licence that would require Agnico Eagle to demonstrate that flooded water quality meets water quality objectives. The actual length of time will be determined in the Final Closure and Reclamation Plan, however in the Interim Closure and Reclamation Plan it is noted that routine pit lake water quality will be undertaken for three years post closure.
- The model prepared for this modification builds on previous models completed for the Whale Tail Mine but an updated climate input series was used; geochemical source term development followed similar approach but updated for the mine plan; and updated monitoring data was used to calibrate and/or validate the model.

On July 30, 2024, having reviewed the Licensee's response, ECCC responded that it had no further comments.

Copies of all documents received in support of the Request can be accessed through the NWB's Public Registry and FTP site using the following link:

<ftp://ftp.nwb-oen.ca/registry/2%20MINING%20MILLING/2A/2AM%20-%20Mining/2AM-WTP1830%20Agnico/3%20TECH/G%20MODIFICATIONS/2024>

### **NWB's Review and Decision**

The NWB, having reviewed the Licensee's Request in the context of Interveners' comments and recommendations, potential impacts of the proposed activities on the freshwater environment, and consistency of the proposed activity in relation to the scope of the Licence, as well as the clarification provided by the Licensee, determined that the modification proposed are consistent with the scope of activities considered under the Licence issued to the Project. Therefore, by way of this correspondence and in accordance with **Motion No: 2024-A1-001** and Part G, Item 1 of the Licence, the Board authorizes Agnico Eagle to undertake the modification in accordance with Agnico Eagle's Request.

The Board also approves the *Water Management Plan, Version 13.1* dated July 2024, and the *Whale Tail Project – Waste Rock Management Plan, Version 13*, dated May 2024, in accordance with the above Motion and Part B, Item 14 of the Licence. The Licensee is advised that the management plans can be implemented upon the issuance of this letter by the Board

In addition, the Board advises the Licensee that in accordance with Part G, Item 2 of the Licence, changes in excess of those authorized under this modification, may constitute a separate potential modification or amendment to the Licence, which may require respective determination(s) from the Nunavut Planning Commission (NPC) and/or the NIRB prior to receiving any

consideration(s) and/or determination(s) from the NWB. Further, in keeping with Part G, Item 4 of the Licence's terms and conditions, the submission of post-construction information, including as-built plans and drawings (if any), shall remain applicable to this authorization.

Should you have any questions regarding the above, please contact the NWB Licensing Department by email to [licensing@nwb-oen.ca](mailto:licensing@nwb-oen.ca) or by phone at (867) 360-6338.

Sincerely,

A handwritten signature in black ink, appearing to read 'Abid Jan', with a stylized flourish at the end.

Abid Jan  
Technical Advisor  
Nunavut Water Board

Cc:                    Distribution List – Meadowbank