



Environmental Protection Operations Directorate
Prairie & Northern Region
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ECCC File: 6100 000 008/015
NWB File: 2AM-WTP----

October 17, 2017

Via email to: licensing@nwb-oen.ca

Karen Kharatyan
A/Manager of Licensing
Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU X0B 1J0

Dear Mr. Kharatyan:

RE: 2AM-WTP---- – Agnico Eagle Mines Ltd. – Whale Tail Pit Project – Water Monitoring Reduction Framework, Draft Water Licence Framework, and Summary of Resolutions

Environment and Climate Change Canada (ECCC) has reviewed the information submitted to the Nunavut Water Board (NWB) regarding the above-mentioned frameworks and is submitting comments via email as requested by the NWB. ECCC's specialist advice is provided based on our mandate, in the context of the *Canadian Environmental Protection Act* and the pollution prevention provisions of the *Fisheries Act*.

Water Monitoring Reduction Framework

ECCC notes that the water monitoring reduction framework is applicable to the post-closure phase of the Whale Tail Pit Project (the Project). Agnico Eagle Mines Ltd. (the Proponent) states that the framework would apply to verification and general monitoring and would not apply to regulated discharge monitoring such as that required under the *Metal Mining Effluent Regulations* (MMER), a regulation made under the *Fisheries Act*. If approved, the Project will be subject to the MMER. As such, the Proponent is expected to comply with all requirements of the MMER, including the requirements for reduction in monitoring (frequency) for regulated discharge.

ECCC is of the opinion that it would be premature to assign/approve post-closure water monitoring reduction criteria so far in advance of the post-closure phase and, as such, recommends re-visiting the topic of reduced monitoring at an appropriate time in the future. Typically, opportunities to request reduced monitoring would be available upon

renewal of the water licence (which would align with the post-closure phase for this project in 2026), as well as during the Aquatic Effects Management Program review stage. In addition, the Proponent proposes including a clause in the Whale Tail Pit water licence which would enable the NWB to modify the monitoring program without a public hearing. It is ECCC's understanding that this clause would allow the Proponent to apply for reduction of monitoring at any time during the holding of their water licence. ECCC recommends that the NWB provide interested parties an opportunity to review and provide comments on any request for a reduction in monitoring, including the data and rationale that support the request.

Draft Water Licence Framework

General

1. There are multiple editorial errors found throughout the proposed water licence framework:
 - a. ECCC notes that there are references to management plans and other documents which sometimes refer to outdated versions of the documents. It is also unclear if the document being referred to is a Meadowbank management plan, or an addendum to a Meadowbank management plan, or if it is a stand-alone plan under the Whale Tail Pit water licence.
 - b. The draft water licence references items from the Meadowbank water licence, however some of these items may have to be altered/updated to correctly reflect the appropriate term/condition for the Whale Tail Pit Project. For example, monitoring station names will need to be updated.
 - c. ECCC notes that there are references made to a landfarm and assumes this is in reference to the Meadowbank landfarm. However, this should be clarified in the water licence.
 - d. Some items in the proposed draft water licence are repeated and should be removed. For example, Schedule B General Conditions under the Waste section bullet point 2 and 3 are repetitive.

ECCC recommends that:

- a. All references to management plans or other documents be updated to reference the most recent version of that document. Also, it should be clear in the draft water licence whether these references are for the original plan (as under the Meadowbank water licence), or if it includes the associated Whale Tail addendum, or if it refers to a plan/document that is unique to this water licence.
- b. References to items in the Meadowbank water licence be reviewed and updated accordingly if used in the Whale Tail Pit water licence.
- c. Clarification be made as to what landfarm is being referenced in the water licence (i.e. should say the Meadowbank Mine Landfarm).
- d. Any repeated items be removed.

Part B: General Conditions

2. ECCC notes that a standard term/condition was missing from the draft water licence framework. This term/condition is found as Item 15 in the Meadowbank water licence as: *"Every Plan to be carried out pursuant to the terms and conditions of this Licence shall become a part of this Licence, and any additional terms and conditions imposed upon approval of a Plan by the Board become part of this Licence. All terms and conditions of the Licence should be contemplated in the development of a Plan where appropriate."*

ECCC recommends that Part B, Item 15 from the Meadowbank water licence be added to the Whale Tail Pit water licence.

Part D: Conditions Applying to Construction and Operation

3. Item 9 states that *"Whale Tail Attenuation Pond water quality shall be monitored in accordance with the licence criteria and may be discharged via the Mammoth diffuser. Effluent from dewatering of Whale Tail Lake (North Basin) will be discharged to Whale Tail Lake (South Basin) and will be treated in the Water Treatment Plant, if it meets water quality criteria will and discharged to Mammoth Lake via the Mammoth Lake Diffuser."* This statement is confusing and should be clarified. It is not clear whether water from the attenuation pond will be discharged via the Mammoth diffuser, and where water from Whale Tail Lake North Basin will be discharged and if it will be treated prior to discharge.

ECCC recommends that ", if discharge criteria are met" be added to the end of the first sentence referenced above and that the last sentence be clarified so that it is clear where the water from Whale Tail Lake North Basin will be discharged and whether it will be treated before discharge.

4. ECCC notes that there is no term and condition that addresses sediment and erosion control from Project activities.

ECCC recommends that Part D, Item 10 from the Meadowbank water licence be added to the Whale Tail Pit water licence as follows: *"The Licensee shall implement sediment and erosion control measures prior to and during Construction, and Operations where necessary, to prevent entry of sediment into Water."*

Part E: Conditions Applying to Water Use and Management

5. Item 5 indicates that a Water Quality Model for pit re-flooding as part of the Water Management Plan shall be updated at a minimum of once every two years following commencement of operations. This term/condition was taken from the Meadowbank water licence where the life of mine is longer than the Whale Tail Project.

ECCC recommends that the Water Quality Model for pit re-flooding be updated to a more appropriate frequency (i.e. at least annually) following commencement of operations since operations will only last 3-4 years.

6. It is important to consistently compare the predicted water quality within the pit to measured water quality to verify predictions. This will also help ensure that any adaptive management/mitigation measures taken are appropriate for the situation.

ECCC recommends that term/condition Part E, Item 9 from the Meadowbank water licence be incorporated into the Whale Tail Pit water licence as follows:
“The Licensee shall, on an annual basis during Operations and Closure, compare the predicted water quantity and quality within the pit, to the measured water quantity and quality. Should the difference between the predicted base case values and measured values be 20% or greater, then the cause(s) of the difference(s) shall be identified and the implications of the difference shall be assessed and reported to the Board.”

Part F: Conditions Applying to Waste Disposal and Management

7. Item 2 indicates that sludge from the sewage treatment plant will be disposed of in the waste rock storage facility, or the tailings storage facility, or the (Meadowbank) landfarm. There is no mention of where the sludge from the water treatment plant will be disposed of. As per the Proponent’s response to ECCC#7, the Proponent will dispose of sludge in the waste rock storage facility and not the attenuation pond.

ECCC recommends that the following be added to Part F:

- a. an item which outlines where sludge from the water treatment plant can be disposed of (i.e. the waste rock storage facility) and;
- b. an item which indicates that no sludge of any type is to be deposited into the Whale Tail Attenuation Pond.

Part I: Conditions Applying to General and Aquatic Effects Monitoring

8. ECCC notes Part I, Item 9 is a term/condition in the Meadowbank water licence that covers thermal monitoring as follows: *“The Licensee shall undertake the Thermal Monitoring Program detailed in the Mine Waste Rock and Tailings Management Plan (2014) as approved by the Board.”* As indicated in ECCC’s final written submission, ECCC#5 states that thermal monitoring of waste rock is important to determine if trends are as predicted.

ECCC recommends a similar term/condition as Part I, Item 9 from the Meadowbank water licence be used in the Whale Tail Pit water licence.

9. In ECCC's final written submission, ECCC#5 recommended that monitoring results for receiving waters be compared to model predictions and to thresholds identified for management actions should trends indicate water quality objectives may be exceeded. In the Proponent's response to this recommendation, the Proponent indicated that this recommendation could be reflected in the Type A Water Licence.

As per the Proponent's response to ECCC's final written submission recommendation #5, ECCC recommends that a term/condition be included as follows: "The licensee shall compare monitoring results for receiving waters to model predictions (including base case predictions) and to thresholds identified for management actions, should trends indicate water quality objectives may be exceeded."

Schedule A: Scope, Definitions and Enforcement

10. This section of the water licence contains definitions that will match the ones found in the Meadowbank water licence, while some terms will need a revised definition. ECCC notes that the revised definition for "Contact Water Collection System" only refers to the water collection systems of pre-development activities of the Whale Tail Pit.

ECCC recommends that the water licence definition of "Contact Water Collection System" refers to all activities including but not limited to pre-development activities.

Schedule B: General Conditions

11. ECCC notes that the last bullet point under the Water section does not indicate how frequently the reporting results for the Water Balance and Water Quality model are required.

ECCC recommends that "in Part E, Items XX" be added to the end of the bullet point to indicate how often these results should be reported. XX refers to the items in the Whale Tail Pit water licence that are comparable to the Meadowbank water licence Part E, Items 7-9.

12. Under the Waste section bullet point 4, ECCC notes that there is an incomplete sentence: "*A summary report of all general waste disposal activities including monthly*". ECCC believes that the sentence should be completed using Meadowbank's water licence Item 11. ECCC also believes that Item 12 of Meadowbank's water licence should be added to this section.

ECCC recommends that bullet point 4 of the Waste section should be completed using Meadowbank's water licence Item 11 and Item 12.

13. Under the Spills, Modifications, Monitoring, Closure, Plans/Reports/Studies, and General sections, the water licence framework proposes to use a copy of the

items from the Meadowbank water licence. ECCC suggests that an additional item be added under the Monitoring section to ensure an appropriate annual comparison of monitoring results to various components of the water licence, to assess/validate predictions made during the environmental assessment phase, and to flag potential water quality issues.

ECCC recommends that an additional item be added under the Monitoring section which would include: Annual comparison of monitoring results to model predictions (including base case predictions), triggers and thresholds, baseline levels, water licence limits, and water quality criteria, as applicable. Exceedances of applicable predictions (including base case predictions), triggers, thresholds, baseline levels, water licence limits, and water quality criteria are identified and discussed, as are trends/results that indicate potential water quality issues.

Attachment A

14. In this section, a paragraph describes the commitment made by the Proponent in order to address ECCC's recommendation #8 in ECCC's final written submission. It is mentioned that "*Details of the monitoring program will be provided 60 days prior to Construction*". This is incorrect, as the details of the monitoring program should be provided 60 days following approval of the Type A Water Licence, as per the proposed term & condition in the Proponent's final submission response to ECCC#8.

ECCC recommends that the section describing Agnico Eagle's commitment to ECCC#8 be updated so that the details of the monitoring program are provided 60 days after the approval of the Type A water licence.

Summary of Resolutions

As discussed at the NWB Public Hearing for the Whale Tail Pit Project, Interveners are required to submit a summary of how their issues/concerns were resolved. Please find attached to this letter a summary table which outlines how ECCC's recommendations were addressed by the Proponent.

Should you require further information, please do not hesitate to contact me at (867) 669-4733 or Melissa.Pinto@canada.ca.

Sincerely,

[original signed by]

Melissa Pinto
Senior Environmental Assessment Coordinator

Attachment: Summary Table of Resolutions

cc: Georgina Williston, Head, Environmental Assessment North (NT and NU)
ECCC Review Team
Ryan Vanengen, Amaruq Permitting Lead, Agnico Eagle Mines Ltd.