



Environment and
Climate Change Canada

Environnement et
Changement climatique Canada

Environmental Protection Operations Directorate
Prairie & Northern Region
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P.O. Box 2310
Yellowknife, NT X1A 2P7

ECCC File: 6100 000 008/015
NWB File: 2AM-WTP1826

September 28, 2018

Via email at: licensing@nwb-oen.ca

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

Dear Mr. Dwyer:

RE: 2AM-WTP1826 – Agnico Eagle Mines Ltd. – Whale Tail Project – Water Quality and Flow Monitoring Plan

Environment and Climate Change Canada (ECCC) has reviewed the information submitted to the Nunavut Water Board (NWB) regarding the above-mentioned monitoring plan and is submitting comments via email. 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*.

The following comments are provided:

1. Monitoring parameters

Reference:

- WT Water Quality and Flow Monitoring Plan (August 2018)

Comment: Monitoring of field pH and field temperature is not specifically mentioned in the monitoring program.

Recommendation: ECCC recommends including field pH and field temperature in the monitoring program.

Canada

www.canada.ca/en/environment-climate-change
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2. TSS/turbidity regression curve

References:

- WT Water Quality and Flow Monitoring Plan (August 2018)
- Water Quality Monitoring and Management Plan for Dike Construction and Dewatering

Comment: Field measurements of turbidity will be used as a real-time surrogate for measuring total suspended solids (TSS) during dike construction and dewatering. Monitoring details are provided in the Water Quality Monitoring and Management Plan for Dike Construction and Dewatering. This plan indicates that the site specific TSS-turbidity relationship developed at Meadowbank will be used to guide the Whale Tail monitoring program. ECCC advises that ongoing calibration of the TSS-turbidity relationship will be important to correct for potential differences in particle sizes and shapes between the Meadowbank and Whale Tail sites.

Recommendation: ECCC recommends incorporating ongoing calibration of the Whale Tail TSS-turbidity relationship into the monitoring program during dike construction and dewatering.

3. Group 1 parameters

Reference:

- WT Water Quality and Flow Monitoring Plan (August 2018), Table 3-1: Monitoring Program

Comment: Group 1 is inaccurate in listing the major ions and nutrients in brackets as total metals; for clarity, list the total metals separately.

Recommendation: For clarity, ECCC recommends that Group 1 parameters list the total metals separately from the major ions and nutrients.

4. Attenuation pond post-treatment characterization

Reference:

- WT Water Quality and Flow Monitoring Plan (August 2018), Table 3-1: Monitoring Program

Comment: The use of Group 1 parameters will not accurately characterize the attenuation pond post-treatment. Monitoring of Group 2 parameters on a weekly basis would allow full characterization.

Recommendation: For full characterization, ECCC recommends monitoring the attenuation pond weekly post-treatment using Group 2 parameters.

5. Attenuation pond post-treatment monitoring

Reference:

- WT Water Quality and Flow Monitoring Plan (August 2018), Table 3-1: Monitoring Program

Comment: Effluent from the sewage treatment plant will be discharged to the Whale Tail Pit attenuation pond. As post-treatment discharge from the attenuation pond will be directed to Mammoth Lake, Biological Oxygen Demand₅ (BOD₅) and bacteriological parameters should be monitored/controlled at either the sewage treatment plant or the attenuation pond prior to release to Mammoth Lake.

Recommendation: ECCC recommends adding BOD₅ and bacteriological parameters to the monitoring program for either the sewage treatment plant effluent or the attenuation pond post-treatment.

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

cc: Georgina Williston, Head, Environmental Assessment North (NT and NU)
ECCC Review Team