



August 31st, 2018

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

Re: Agnico Eagle Mines – Meadowbank Division Responses to North East Dike Design Report Comments

Dear Mr. Dwyer,

As requested, the following information and comments are intended to address the questions/ comments made in the below letter:

- CIRNAC – August 21, 2018, *Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) Technical Review Comments of the Design Report For the North East Dike – Whale Tail Project under Agnico Eagle Mines Limited's Type "A" Water Licence No. 2AM-WTP1826.*

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

Best regards,

Manon Turmel
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819-759-3555 x 4608172
Environmental Compliance Counselor



1) Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC)

Comment 1: Dam Classification

Comment:

The report refers to Canadian Dam Association (CDA, 2014) in some sections and CDA, 2007, rev 2013 in other sections for the design criteria. CIRNAC is unable to find CDA, 2014 on the Dam Safety Publications list of the Canadian Dam Association. The most recent edition of the indicated safety guidelines available on the CDA website is dated 2013. Although, the narratives provided to justify the NE Dike classification (Significant) are reasonable, CIRNAC is seeking clarification regarding reference to CDA, 2014 and sections of the technical bulletin that are applicable to the design.

Agnico Eagle Mines response:

Agnico Eagle agrees with this comment and should have referenced CDA, 2007 (revised in 2013) solely instead of CDA, 2014. The design has been developed based on the selected classification of the dam (Section 2.5.3 of CDA 2007, revised in 2013) and geotechnical and hydrotechnical considerations were based on Section 6.0 of the CDA, 2007 (revised in 2013).



Comment 2: Instrumentation and monitoring plan

Comment:

Agnico Eagle shall periodically perform inspection to verify the general layout and performance from a seepage point of view. CIRNAC requests Agnico Eagle to confirm the frequency (months, years, etc.) of the required inspection. The NE Dike is a temporary structure and its overall design concept is based on lessons learned from previous studies (stability, seepage, thaw settlement, stress, wind and waves) carried out for Whale Tail, Mammoth Dike and the Waste Rock Storage Facility Dike. However, CIRNAC requests confirmation that the indicated inspections will be completed in accordance with Section 3.6.2 – Visual Inspections (routine inspections, engineering inspections and special inspections) of the Dam Safety Guidelines 2007 (2013 Edition).

Agnico Eagle Mines response:

Agnico Eagle agrees with this comment. Prior to commissioning of the infrastructure, an Operation, Maintenance and Surveillance Manual detailing programs to be implemented will be developed. The inspection program will comply with Section 3.6.2 of the Dam Safety Guidelines 2007 (2013 Edition). It will also include lessons learned from previous studies.



Comment 3: Drainage and Flow Path Map

Comment:

The report describes how the dike will direct flow, however CIRNAC has uncovered inconsistencies. Section 1.2 of the report states “water from the pond that will be created on the upstream side of the dike will be periodically pumped out and treated for suspended solids at the Attenuation Pond.” The area of this pond is not depicted in the report.

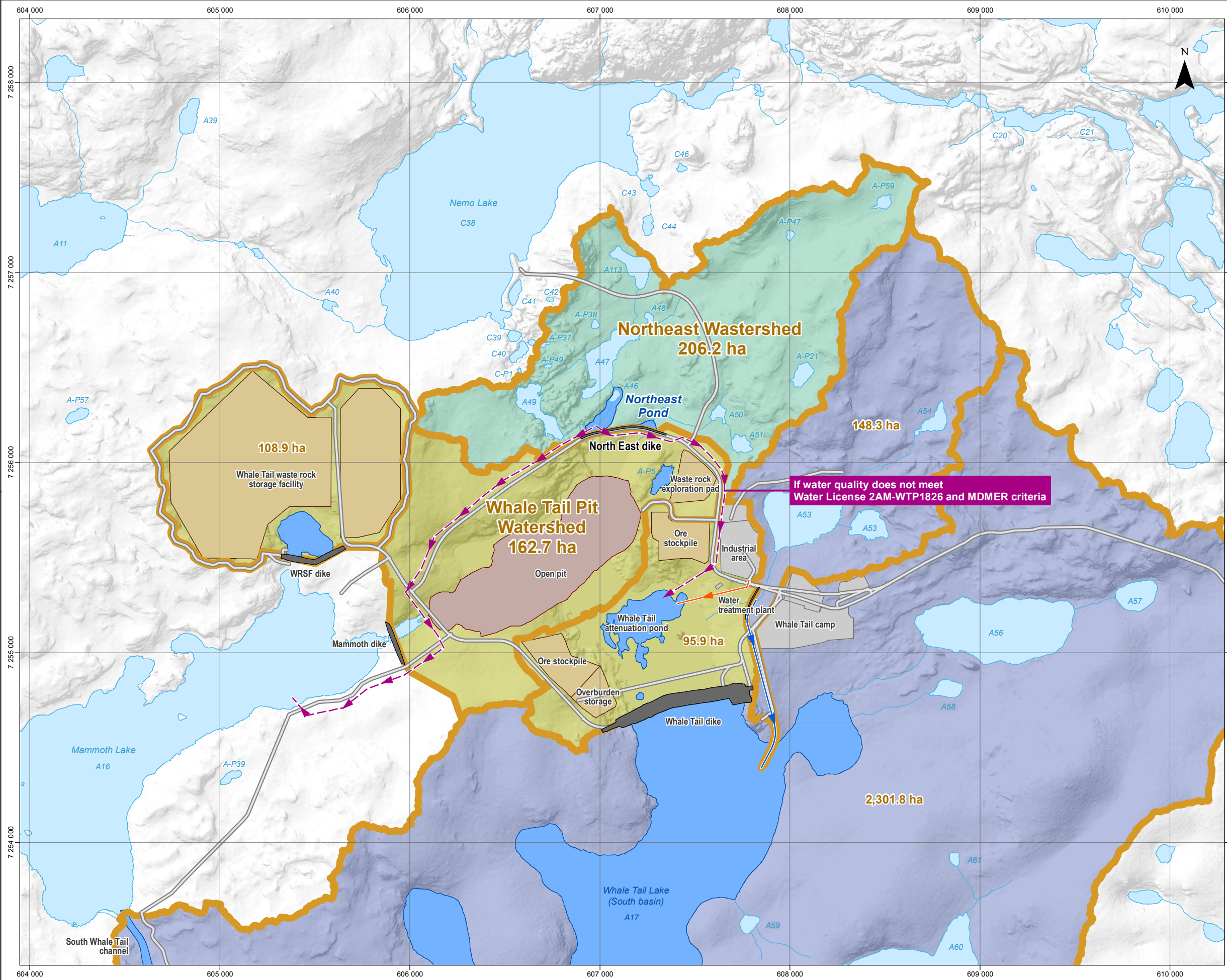
Section 4.3 NE Pond Operational Criterion states “in case of a flood larger than the design flood, water will overflow towards Nemo Lake rather than towards the mine site”. There are two issues here. First, where is the NE Pond located? CIRNAC assumes this is the same pond mentioned in Section 1.2 without a name. CIRNAC therefore recommends attaching a detailed map with the size and location of this pond with this report.

Section 5.1.3 of the report states “the NE Dike collects a watershed of approximately 206 ha as shown on Figure 5-2. It will be used to store runoff water from this watershed, to stop it from flowing towards the mine site and pit, before it can be pumped towards Mammoth Lake.” In this section, the report indicates that the water will be pumped toward Mammoth Lake. Earlier in the report, it’s stated that water would be pumped to the attenuation pond. CIRNAC recommends that the applicant provide clarification.

In summary, CIRNAC recommends that the applicant provide a more detailed map depicting flow direction, the location of the NE Pond, and direction of pumping. Supplemental information shall also clarify where the water will be pumped from/to, as well as at what water elevation will the water flow towards Nemo lake instead of being pumped to the Attenuation Pond.

Agnico Eagle Mines response:

To provide clarification, Figure 5.2 has been updated below to show the location of the NE Pond and direction of pumping. Water from the NE Pond will be discharged to Mammoth Lake unless water quality does not meet Water License 2AM-WTP1826 and MDMER criteria. If water quality does not meet above criteria, it will be pumped to Whale Tail Attenuation Pond.



PROJECT COMPONENTS (PHASE I)

- Dike or cofferdam
- Modified waterbody
- Collection ditch
- Diversion ditch
- Water pipe
- Open pit
- Storage facility
- Industrial area
- Road

HYDROGRAPHY

- Watercourse
- Lake
- Modified watershed

Contact water

- Attenuation pond and affluents

Non-contact water

- Mammoth Lake
- Whale Tail Lake (South basin)

NOTE:

Water from Northeast pond is sent to Whale Tail attenuation pond if its quality does not mee the discharge criteria.

AMARUQ GOLD MINING PROJECT

Detailed Engineering of Water Management and Geotechnical Infrastructure

Mine Layout Watersheds – Phase 1

Sources:
Topography, PhotoSat, 2015
Project components : March 2018

Project: 651298
File: snc651298_NEPond_180830.mxd

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1:20 000

UTM projection, Zone 14, NAD83 (CSRS)

August 30, 2018

Figure 1