



Water Resources Division  
Nunavut Regional Office  
Iqaluit, NU X0A 0H0

*Your file - Votre référence*  
2AM-WTP1826

March 27, 2019

*Our file - Notre référence*  
CIDM# 1245534

Richard Dwyer  
Manager of Licensing  
Nunavut Water Board  
Gjoa Haven, NU X0B 1J0

Sent via email: [licensing@nwb-oen.ca](mailto:licensing@nwb-oen.ca)

**Re: Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC)  
comments on Agnico Eagle Mines Limited's (AEM's) East diversion Channel  
Design Report – Whale Tail Pit Project under AEM's Type "A" Water Licence  
No. 2AM-WTP1826.**

Dear Mr. Dwyer,

Thank you for the email notice to interested parties, received on February 27, 2019, regarding AEM's East Diversion Channel Design Report at the Whale Tail Pit Project.

CIRNAC has reviewed and provided comment on AEM's East Diversion Channel Design Report pursuant to its mandated responsibilities from the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* and the *Department of Indian Affairs and Northern Development Act*.

If you have any questions or require further information with respect to this matter, contact me at (867) 222-9278 or email [ian.parsons@canada.ca](mailto:ian.parsons@canada.ca), or Godwin Okonkwo at (867) 975-4550 or email [godwin.okonkwo@canada.ca](mailto:godwin.okonkwo@canada.ca).

Regards,

Ian Parsons  
Regional Coordinator, Water Resources, Nunavut Regional Office

Canada



## **Technical Review Memorandum**

To: Richard Dwyer, Manager of Licensing, NWB

From: Ian Parsons, Regional Coordinator, Water Resources Division – CIRNAC, NRO

Date: March 27, 2019

Re: **Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC)  
comments on Agnico Eagle Mines Limited's (AEM's) East diversion Channel  
Design Report – Whale Tail Pit Project under AEM's Type "A" Water Licence  
No. 2AM-WTP1826.**

Applicant:	Agnico Eagle Mines Limited
Representative:	Manon Turmel
Project:	Whale Tail Project
Region:	Kivalliq

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### **RESULTS OF REVIEW**

Comments and recommendations are provided by CIRNAC Water Resources Division, pursuant to the Department's mandated responsibilities under the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* and the *Department of Indian Affairs and Northern Development Act*.

### **Comments/Recommendations**

#### **#1: Peak Flow Estimate**

**Comment:** In the design report, peak discharge was estimated applying and using MTQ (2014) (i.e., Ministère des transports du Québec, Manuel de conception des ponceaux, Ouvrages routiers, Guides et manuels, Novembre 2014). Spring freshet is a hydrological event at the mine site. CIRNAC could not find clear information on whether or not consideration was given to the effects of freshet on the estimation of peak flow or discharge.

CIRNAC recommends that the effects of freshet on the estimation of peak flow or

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discharge should be considered by the licensee and explained or discussed in the design report.

## #2: TSS or Sediment Control

**Comment:** Surface water quality can be significantly affected by soil erosion and high concentration of Total Suspended Solids (TSS) or sediments in water during freshet or heavy rain events. CIRNAC could not find clear discussion on erosion and TSS controls being provided in the design report.

CIRNAC recommends that the licensee consider and explain or discuss erosion and TSS controls in the design report.

## #3: Water Quality Monitoring

**Comment:** During freshet or heavy rain events, the proposed diversion channel passes around ore stockpile and industrial area and may be subjected to other pollutants (e.g., spill of ore material, dust, oil spill, etc.). If protection measures are in place, they should be discussed. However if there are no protective measures in place, the water that flows to Lake A55 or the South Whale Tail Lake through the East Diversion Channel needs to be monitored to make sure its quality meets the applicable discharge criteria.

CIRNAC recommends that the quality of water in the East Diversion Channel should be monitored by the licensee before it discharges to Lake A55.

## #4: Closure

**Comment:** The design report states that *“At the end of Whale Tail Pit project, all channel and ditches will be backfilled so as to promote natural drainage. The restoration will be done in compliance with the closure plan.”*

CIRNAC looks forward to reviewing the closure plan at the appropriate time.

## #5: Conclusion

**Comment:** The design report concludes by stating *“The East Diversion Channel will be used to divert non-contact water from A-53 Lake to lake A55 and South Whale Tail Lake. The upper part of the channel will be sealed in order to block natural drainage going to North Whale Tail Lake. The channel will have a 1 meter width on most of its length and will be protected with riprap.”* CIRNAC notes that there is no clear information or discussion provided in the report concerning the sealing of the upper part of the channel.

CIRNAC recommends that the licensee further explain how the sealing of the upper part



of the channel will be accomplished, and what measures are in place to ensure that the “seal” is working as it should. The Licensee should also describe the consequences of a “seal” failure.