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Permitting and Regulatory Affairs  
Agnico Eagle Mines Limited - Meadowbank Division  
Baker Lake, Nunavut, Canada  
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November 21, 2019

**Subject:** Whale Tail Pit Expansion Project - Meadowbank Division  
Review of the Revised Assessment of Alternatives Report for Mine Waste  
Disposal (Lake A53)

Dear Mr. Quesnel,

ECCC has received the newest version of the Assessment of Alternatives (AA) report, dated September 2019, that was revised based on comments formulated by ECCC's Mining and Processing Division according to the *Guidelines for the assessment of alternatives for mine waste disposal (Guidelines)*. The revised report, prepared by ERM and entitled "Whale Tail Pit Expansion Project: Attenuation Pond Alternatives Assessment Report", was once again reviewed in consideration with the *Guidelines*.

The proponent has successfully addressed all but one (1) comment that stemmed from the original report. We also have a few other minor comments that the proponent may want to address.

We ask for your collaboration in addressing the comments and when required, integrate your responses into an updated version of the AA report. We would also recommend that any future changes made to the AA report, whether they stem from our comments or come from your own initiative, be identified or listed in a separate document, as this will assist with the revision of the new version. Once amended, please resubmit your report for revision.

It should be noted that the overall adequacy of both the AA and FHCP must be assessed before ECCC can proceed with consultations associated with amending Schedule 2 of the MDMER. It is expected, however, that following consultations and feedback received from Indigenous groups and the public, changes to both the AA and the FHCP reports can occur.



Should you have any questions or concerns with regards to this matter, please do not hesitate to contact me at 819-420-7369 or via email at [corinne.proux@canada.ca](mailto:corinne.proux@canada.ca).

Sincerely,



Corinne Proux  
Senior Program Engineer  
Mining and Processing Division  
Environment and Climate Change Canada

cc: Eva Walker, Environmental Assessment Coordinator, ECCC  
Patrick Koch, Head - Mining Technical Analysis Unit, ECCC  
Nancy Seymour, Manager, Mining Section, ECCC  
Erin Reimer, Technical Advisor I, NIRB  
Boyan Tracz, Fisheries Protection Biologist, Department of Fisheries and Oceans  
Nicola Lower, Principal Consultant, ERM

Attachment:

- ECCC Comments on the Revised Assessment of Alternatives Report for the Whale Tail Expansion Project



**Appendix 1:  
ECCC Comments on the Revised Assessment of Alternatives Report for the  
Whale Tail Expansion Project**





**Table 1: Key Comment on the Assessment of Alternatives Report**

1	38	4-1	Subsection 4.2 Threshold Criteria	<p>According to the <i>Guidelines for the Assessment of Alternatives for Mine Waste Disposal (Guidelines)</i>:</p> <ul style="list-style-type: none"> <li>• “The first step in the alternatives assessment process entails developing a list of all possible (i.e., reasonable, conceivable and realistic) candidate mine waste disposal alternatives for the site”.</li> <li>• “Generally, it is not too difficult to develop a substantial list of alternatives during Step 1 of the process. However, this list of alternatives should be screened during Step 2 to allow the decision process to be carried out on an appropriate and manageable set of sufficiently detailed alternatives.”</li> <li>• “It may be appropriate to establish a basic set of threshold criteria to establish the regional boundaries for selecting candidate alternatives. These threshold criteria should be as broad as possible and must be fully described and rationalized to ensure transparency”.</li> </ul> <p>As aforementioned, the objective of this Step is to identify all possible alternatives within reason by applying threshold criteria. While the proponent has identified a reasonable amount of alternatives, no alternatives should be screened out at this stage. Table 4-2 should therefore be reconsidered.</p> <p>The proponent has also taken step to selecting threshold criteria. They are meant to limit the number of candidate alternatives to a reasonable amount. The proponent rightly mentions that not only geographical thresholds can be used but also other criteria pertaining for example, to geological considerations or technical limitations can be selected. However, some of the criteria described in the report are structured more as pre-screening criteria – Step 2 – rather than threshold criteria.</p> <p>For example, the threshold criterion identified as “<u>Must Align with Management Guiding Principles</u>”, while very important, is structured more as a show-stopper; its description states that “Agnico Eagle does not support alternatives that would not align with the Whale Tail Project’s water management plan”.</p> <p>The proponent is reminded that, it is at Step 2 of the process outlined in the <i>Guidelines</i>, and not at Step 1, that pre-screening criteria are formulated such that a simple “YES” or “NO” determines whether the alternative complies with said criteria.</p> <p>This criterion could nonetheless be restructured as a threshold by highlighting the guiding principles of AEM’s water management plan. For example: all alternatives that would prevent using specific infrastructures (ex.: current water treatment system) are excluded, all alternatives within a specific area are excluded per the approved water management plan, etc. A reference to the water management plan would also be useful (as well as for the approved mine plan for subsection 5.2).</p> <p>The proponent should revisit the criteria of Step 1 to ensure they are clearly defined as threshold and not show-stoppers. Vice-versa, the proponent may also want to re-examine the pre-screening criteria of Step 2 to make sure they are not actually threshold criteria.</p>	
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**Table 2: New comments and suggested edits on the Assessment of Alternatives Report**

Number	PDF Page	Page in Report	Section in report	Comment	Response
1	N/A	N/A	All report	<p>In light of data gathered during the 2019 field season, which confirmed the presence of Ninespine Stickleback in three (3) lakes: A50, A51 and A52, the proponent recently stated that the "... previously described non-fish bearing Lake 50, Lake 51, and Lake 52 were reclassified as fish-bearing lakes based on the Ninespine Stickleback observations in summer 2019". The site layout shows these waterbodies as being overprinted by either effluent or waste rock.</p> <p>The proponent should revisit relevant sections of the report, as well as Figures 6-2 to 6-6, to reflect its new position and describe these waterbodies, and associated waterways, as fish frequented.</p>	
2	N/A	1-2	Subsection 1.3.1:	<p>The report states that "The streamlined process shortens the approval time to 5-6 months by exempting pre-publication of the Schedule 2 amendment in <i>Canada Gazette</i>, Part 1, which makes public the text of the proposed regulations and the associated regulatory impact statement."</p> <p>It is important to state that amendments are only eligible for streamlining if all the required documents are submitted and consulted on (Assessment of Alternatives (AA) and Fish Habitat Compensation Plan (FHCP) reports) and all conditions outlined in the aforementioned document are met.</p> <p>To note, the Department has brought the average time to complete a Tailings Impoundment Area (TIA) down from 24-36 month to 12-18 months by further implementing the Department's Streamlining Policy for projects meeting certain criteria and by shortening internal approval timelines of regulatory packages. Timelines may be quicker but these are done on a case-by-case basis.</p> <p>Please revisit the statement in the report.</p>	
3	18	1-6	Subsection 1.4.2: Consultation	<p>The report states that "the construction of the Baker Lake Fuel Farm was discussed during the March 2019 consultations" as a possible compensation. Please note that any fish habitat offsets will be evaluated based on the information provided in the FHCP. Any mention of fish habitat offsetting in the AA report cannot be construed as an approval by ECCC.</p>	
4	30	2-13	Subsection 2.4.4: Water Quality and Discharge Criteria	<p>Please expand the acronym "CEQG" or include it in the Glossary and Abbreviations section.</p>	
5	32	2-15	Table 2-3	<p>Table 2-3 summarizes the water quality discharge criteria for the effluent. Column 4 shows the maximum authorized monthly mean concentrations under the <i>Metal and Diamond Mining Effluent Regulations</i> for a number of parameters. The proponent is invited to address the following elements:</p> <ul style="list-style-type: none"> <li>For the parameter Zinc, the monthly mean concentration should be of 0,5 mg/L and not 0,4 mg/L.</li> <li>In Note 3, the empirical formula is incorrect. It should read:  <math>[total\ ammonia] * (1/(1 + 10^{(pKa-pH)}))</math>; or <math>[total\ ammonia] * (1/(1 + 10^{pKa-pH}))</math></li> </ul>	

Number	PDF Page	Page in Report	Section in report	Comment	Response
6	58	6-5	Subsection 6.5: Characterization of Alternatives Figures 6-2 to 6-6	<p>According to Figures 6-2 to 6-6, Lakes A50 and A52 remain intact; they are not impacted by any mine structures. However, it is contradictory to the site layout, presented in Figure 2-3, which shows these waterbodies as overprinted by the IVR Waste Rock Storage Facility and the Groundwater Storage Pond (GSP-2).</p> <p>Please correct Figures 6-2 to 6-6.</p>	
7	65	6-17	Subsection 6.5.1: Technical Account	<p>The report states, under Alternatives I and II, that “the water level would be raised from 162.00 masl to 164.25 masl, increasing the surface area of the lake from 10 ha to 26 ha”. It is believed the current surface of the lake is 14 ha and not 10 ha, as mentioned in section 6.5.4 and in Table 6-6.</p> <p>Please revise the statement or provide additional clarifications.</p>	
8	88	7-4	Table 7-2 and Table 8-3	<p>In AEM's <i>Response to ECCC Comments</i> presented in Appendix B, the indicator <u>Ability to Manage Surface Water Quality Impact</u> was changed for <u>Risk of Impacts to Surface Water Quality External to the Attenuation Pond</u> (under sub-account <u>Surface Water</u>). However, this change was not incorporated into Table 7-2 and Table 8-3.</p> <p>Please revise both tables or provide additional clarifications.</p>	
9	90	7-6	Subsection 7.4.2: Ledger	<p>The report states that “The multiple accounts ledger [...] is provided in its entirety in Appendix B”. It should read “Appendix C”.</p>	
10	97	9-2	Table 9-4	<p>Table 9-4 presents the sub-account merit ratings for each alternative. There however seems to be a calculation error for Alternative V under the sub-account <u>Surface Water</u>. The rating should be “2.8” and not “2.4”.</p> <p>Please revise the MAA ledger and update all affected sections (text of subsection 9.2, Table 9-2, Table 9-3, Table 9-4, Table 9-5, Figure 9-1, and Figure 9-2).</p>	
11	100	9-5	Table 9-5	<p>Table 9-5 presents the alternatives' merit ratings calculated during the sensitivity analysis. The first line shows the ratings using Agnico-Eagle's weightings (preliminary results). The values presented are those calculated in the original report. It should read Alternative I: 4.21, Alternative II: 3.6, Alternative III: 3.31, Alternative IV: 3.13 and Alternative V: 3.92).</p> <p>Please revise the table and update all affected sections (namely, Figure 9-3).</p>	
12	127	App C	MAA Ledger	<p>It appears there may be errors in the scoring of alternatives for two (2) indicators, when compared with information within the MAA Ledger. Please review the indicator values for the following alternatives and make any revision if necessary:</p> <ul style="list-style-type: none"> <li>○ <u>Closure Complexity</u> (Alternative II)</li> <li>○ <u>Operational Consequence of Dam Failure</u> (Alternatives IV and V)</li> </ul>	