Agnico Eagle Mines Limited – Meadowbank Division

WHALE TAIL PIT
FINAL SUBMISSION RESPONSES
Updated February 6, 2018 per hearing commitment to Nunavut Water Board

Table of Contents

Attachments:

~~**DFO:** Attachment 1: Draft Fish Habitat Offsetting Plan: Whale Tail Pit, June 2017~~

~~**GN:** Attachment 1: Percent Collared Caribou in Zones of Influence~~

BAKER LAKE HUNTERS AND TRAPPERS ORGANIZATION

NOTE: This section applies to the NIRB process. Therefore, Agnico Eagle has not updated these responses for the NWB submission.

ENVIRONMENT AND CLIMATE CHANGE CANADA

Interested Party:	**Environment and Climate Change Canada (ECCC)**	**Ref No.:**	**ECCC-Atmospheric**
Re:	**Atmospheric Environment**		

NOTE: This section applies to the NIRB process. Therefore, Agnico Eagle has not updated this response for the NWB submission.

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Interested Party:	**Environment and Climate Change Canada (ECCC)**	**Ref No.:**	**ECCC-1**
Re:	**Migratory Birds: Flooding**		

NOTE: This section applies to the NIRB process. Therefore, Agnico Eagle has not updated this response for the NWB submission.

Interested Party:	**Environment and Climate Change Canada (ECCC)**	**Ref No.:**	**ECCC-2**
Re:	**Migratory Birds Use of the Tailings Storage Facility**		

NOTE: This section applies to the NIRB process. Therefore, Agnico Eagle has not updated this response for the NWB submission.

Interested Party:	**Environment and Climate Change Canada (ECCC)**	**Ref No.:**	**ECCC-3**
Re:	**Migratory Bird By-Catch and Other Mortalities**		

NOTE: This section applies to the NIRB process. Therefore, Agnico Eagle has not updated this response for the NWB submission.

Interested Party:	Environment and Climate Change Canada (ECCC)	Ref No.:	ECCC-4
Re:	North Wall Pushback of Whale Tail Pit		

Technical Review Comment / Recommendation Made By Interested Party:
ECCC recommends that the Proponent conduct an alternatives analysis of the pit design with and without the north wall pushback scenario, in order to assess the potential risks and benefits to the aquatic receiving environment. The alternatives analysis should consider the entire life of mine and through post-closure.

Agnico Eagle's Response to Technical Review Comment / Recommendation:
Agnico Eagle does not anticipate any other effects from proceeding with the north wall pushback and consequently, estimates that no additional evaluation of the alternatives is necessary. This response outlines the reasons for this conclusion.

The impacts from not doing the north wall push back constitute the base case of the mining scenario which has been fully evaluated and documented and the EIS (EIS Volume 6, Appendix 6-H) and revised modelling scenario (Golder 2017). Addition of the north wall push back has been evaluated for economics, effects to mining rate, changes in pit size, closure scenario, and effects to water quality through evaluation of updated predictions for the WRSF pond, the open pit, the flooded pit lake, and the attenuation pond.

The north wall push back is determined to be economically viable and to be minable within the same period as the base case without the north wall push back. The increased pit size results in a slightly longer flooding period than the base case presented in Golder (2017) but faster than the flooding time of the first version of the model (EIS Volume 6, Appendix 6-H) where dyke breach occurred in June 2029. The dike breach with and without the north wall push back occurs June 2028 and June 2026 respectively. Given the leachability of the north wall ultramafic rock, placement of this waste rock on land is estimated to be the most viable closure alternative for this material rather than placed back into the open pit for flooding. In the WRSF, the ultramafic rock will be mixed with low-leaching waste rock, and leaching will be controlled in the long term via water infiltration through encapsulation underneath a low-leaching waste rock cover and a frozen core.

The results of the north wall pushback have been documented in a report submitted to ECCC and INAC (Golder 2017). It indicated a 20% decrease in the maximum total and dissolved arsenic concentration in the WRSF pond during operation (no change once the cover is placed at closure) and a similar decrease in long term arsenic concentration in the flooded pit and North Whale Tail Lake water quality prior to breaching the Mammoth Lake dike. Consequently, the north wall push back scenario will also improve

downstream lake water quality, reflecting the lower arsenic concentration in the flooded North Whale Tail Lake water that will flow into Mammoth Lake upon dike breaching.

References:

Golder (Golder Associates Ltd.) 2017. Revision 3 – Addendum to Agnico Eagle Mines Whale tail FEIS Appendix 6-H. Sensitivity Analyses on Water Quality Modelling in Support of Responses to Technical Commitments 30, 36, 37, and 42 and Intervenor Comments ECCC #15 and INAC-TRC #3 and #5, on the Water Licence A Application to the Nunavut Water Board. August 24, 2017. Ref: 1658927_Revision 3/6100/6130 Doc 125.

NWB Final Submission Update

Agnico Eagle agrees with ECCC's October 17, 2017 rationale and recommendations provided by ECCC related to Part E: Conditions Applying to Water Use and Management Item 5 and 6. Agnico Eagle considers these issues resolved.

Interested Party:	Environment and Climate Change Canada (ECCC)	Ref No.:	ECCC-5
Re:	**Sensitivity Analyses on Water Quality Modeling**		

Technical Review Comment / Recommendation Made By Interested Party:
ECCC recommends that the Proponent submit detailed management plans to be implemented for:

- *waste rock segregation and testing,*
- *thermal monitoring of waste rock, and*
- *seepage management and monitoring.*

Plans should include a schedule for reporting of results and periodic updating of predictions for the WRSF pond quality, along with proactive planning for optimal cover conditions. Contingency measures should be identified as appropriate. Monitoring results for receiving waters should be compared to model predictions and thresholds identified for management actions should trends indicate water quality objectives may be exceeded.

Agnico Eagle's Response to Technical Review Comment / Recommendation:
Agnico Eagle agrees with the ECCC recommendations and will adhere to the ARD/ML Monitoring Plan (EIS Volume 8, Appendix 8-E.5), Waste Rock Storage Facility Management Plan (EIS Volume 8, Appendix 8-A.1), and Water Quality and Flow Monitoring Plan (EIS Volume 8, Appendix 8-B.3) during construction, operations and closure to inform adaptive management at the Whale Tail Pit Project. Monitoring will continue into post-closure and modelled predictions will be updated using geochemistry and water quality monitoring data obtained during construction and operation. Additional site-specific data continues to be collected to validate the water quality model inputs, including the following:

- Thermistor data from existing and new instrumentation to be installed as the waste rock pile is built
- Waste rock chemical composition through sampling and analysis of mined waste rock to be placed in the WRSF for disposal and in the area to be used for cover
- Water quality monitoring information collected at the locations and frequency described in the Water Quality and Flow Monitoring Plan (EIS Volume 8, Appendix 8.B-3) and the Core Receiving Environment Program (EIS Volume 8, Appendix 8-E.2)
- Laboratory-scale leaching tests and larger field-scale rock leaching tests currently underway at Amaruq Exploration site to document waste rock geochemical behavior in time and under site specific conditions

Experience and knowledge gained through operations and closure of Meadowbank facilities and that which is to be gained during the construction and operations of Whale Tail will continue to inform final closure planning for the Project.

At this time, Agnico Eagle believes that the information that has been provided to ECCC and NIRB is adequate to assess the impacts of the Whale Tail Pit Project on the environment and to make a determination on the Project.

Agnico Eagle will follow the Monitoring Plans proposed for the project, the QA/QC, and decision matrices on action planning set out in the Water Quality and Flow Monitoring program (EIS Volume 8, Appendix 8.B-3). If deemed appropriate by NIRB and NWB, Agnico Eagle submits ECCC's recommendation could be reflected in the Type A Water Licence. Recommendations can be incorporated to support detailed and final design of Project Components and Agnico Eagle proposes to provide the information within the applicable final designs required 60 days prior to construction. In addition, ongoing data collected during operations can be provided in the Annual Report and subsequent revisions to the Management Plans.

NWB Final Submission Update

Agnico Eagle agrees with ECCC's October 17, 2017 “General” rationale and recommendations related to management plans, Part B: General Conditions and comments related to in Part E: Conditions Applying to Water use and Management Item 5 and 6. Agnico Eagle considers these issues resolved.

Interested Party:	Environment and Climate Change Canada (ECCC)	Ref No.:	ECCC-6
Re:	**Effluent Quality Criteria**		

Technical Review Comment / Recommendation Made By Interested Party:

ECCC recommends the Effluent Quality Criteria (EQC) be set based on concentrations that are achievable and that minimize discharge levels to receiving waters. EQC should be applicable to all mine-related discharges to surface waters.

Agnico Eagle's Response to Technical Review Comment / Recommendation:

Agnico Eagle agrees with ECCC that EQC values should be set based on concentrations that are achievable and that minimizes discharge loads to the receiving environment. Agnico Eagle submitted proposed EQCs on June 7, 2017 for review by ECCC. After receiving the final technical submission from ECCC, a follow-up meeting was held with ECCC to resolve any outstanding issues related to the proposed EQC. The EQCs have been updated to reflect comments from ECCC (Table 1). Changes to EQC are as follows:

- iron: changed from 3.0 and 6.0 mg/L (average and maximum, respectively) to 1.0 and 2.0 mg/L (average and maximum, respectively)
- lead: changed from 0.1 and 0.2 mg/L (average and maximum, respectively) to 0.05 and 0.1 mg/L (average and maximum, respectively)
- zinc: changed from 0.4 and 0.8 mg/L (average and maximum, respectively) to 0.1 and 0.2 mg/L (average and maximum, respectively)
- total dissolved solids, ammonia, and cadmium: average and maximum limits have been added
- mercury: average and maximum limits to be added after further discussion with ECCC

Table 1. Proposed Effluent Quality Criteria for Discharge to Mammoth Lake

Constituent	Unit	Licence A Updates Attenuation Pond (Operations, Treated)		Proposed Whale Tail Effluent Quality Criteria	
		Mean[(a)]	Maximum[(b)]	Mean[(a)]	Maximum[(b)]
Conventional Constituents					
pH		-	-	6 - 9.5	6 - 9.5
Total suspended solids		-	-	15	30
Total Dissolved Solids	mg/L	254	519	*1,400*	*1,400*
Nutrients					
Total Ammonia	mg-N/L	0.14	0.23	*16.0*	*32.0*
Total phosphorus	mg-P/L	0.16	0.27	0.3	0.6
Total Metals					
Aluminum	mg/L	0.322	0.322	0.5	1
Arsenic	mg/L	0.086	0.105	0.1	0.2
Cadmium	mg/L	0.000054	0.000093	0.002	0.004
Chromium	mg/L	0.011	0.019	0.02	0.04
Copper	mg/L	0.0042	0.014	0.1	0.2
Iron	mg/L	0.94	1.1	*1.0*	*2.0*
Lead	mg/L	0.0011	0.0037	*0.05*	*0.1*
Mercury	mg/L	0.000014	0.00007	**0.004**	**0.008**
Nickel	mg/L	0.022	0.06	0.25	0.5
Zinc	mg/L	0.0067	0.017	*0.1*	*0.2*
Other					
Total Petroleum Hydrocarbons[(d)]	mg/L	-	-	3.0	6.0

Note: - = no guideline or data; cells highlighted in blue represent revisions since June 7, 2017 submission to Environment and Climate Change Canada.

a) Mean = Maximum Monthly Mean Concentration;

b) Maximum = Maximum Concentration in a Grab Sample.

~~c) For further discussion with Environment and Climate Change Canada before the Nunavut Water Board hearing.~~

c) black line = As presented in the NWB final hearing, the following was updated after discussions with ECCC on September 25th, 2017.

Discharges to surface water also include non-contact water diversions. For the non-contact water diversions, discharge criteria during operations proposed for TSS are 15 mg/L (average) and (30 mg/L as maximum in a grab sample).

As suggested by ECCC, cyanide and radium-226 are not expected to occur in effluent, but will be monitored under MMER and as such do not need to be included in the Water Licence.

Agnico Eagle believes that the information that has been provided to ECCC and NIRB adequately assesses the impacts of the Whale Tail Pit Project on the environment to make a determination on the Project. As NIRB understands, setting of discharge criteria are under the jurisdiction of the NWB and EQC's will be licensed under the Type A Water Licence.

NWB Final Submission Update

See above revisions following the final hearing and according to ECCC's rationale and final submission on October 17, 2017. Agnico Eagle considers these issues resolved.

Interested Party:	**Environment and Climate Change Canada (ECCC)**	**Ref No.:**	**ECCC-7**
Re:	**Sludge Management**		

Technical Review Comment / Recommendation Made By Interested Party:

ECCC recommends that sludge be disposed using methods that have been demonstrated to provide effective containment and isolation under Northern conditions. Therefore, ECCC recommends disposing of sludge into the Waste Rock Storage Facility or the Tailings Storage Facility at Meadowbank, rather than into the attenuation pond/Whale Tail Lake.

Agnico Eagle's Response to Technical Review Comment / Recommendation:

Agnico Eagle agrees with the recommendations of ECCC and will dispose of the sludge in the Whale Tail Pit Waste Rock Storage Facility, rather than into the Attenuation Pond.

NWB Final Submission Update

Agnico Eagle agrees with ECCC's October 17, 2017 rationale and recommendations in Part F: Conditions Applying to Waste Disposal and Management related to sludge disposal. As recommended by ECCC, Agnico Eagle proposes to store the sludge in the Waste Rock Storage Facility. Agnico Eagle considers these issues resolved.

Interested Party:	Environment and Climate Change Canada (ECCC)	Ref No.:	ECCC-8
Re:	Mercury Study		

Technical Review Comment / Recommendation Made By Interested Party:

ECCC recommends conducting a separate study during the construction, operations, and closure of the flooded areas to address key uncertainties (Arctic environment, ice rafting, tundra soils, ice cover, interrupted discharge, cold water, slow fish growth, and shortened reservoir life) that were identified in the Azimuth report (February 2017), in order to inform mercury modeling for this Project. Adaptive management actions should be considered based on the results from this study.

Agnico Eagle's Response to Technical Review Comment / Recommendation:

Agnico Eagle agrees with ECCC. The mercury model completed by Azimuth (2017) describes potential changes to mercury and methylmercury that may occur in the aquatic environment after flooding of Whale Tail Lake South Basin. Agnico Eagle believes that the information that has been provided to ECCC and NIRB is sufficient to assess the impacts of the Whale Tail Pit Project on the environment and to make a determination on the Project.

Agnico Eagle's Proposed Terms and Condition:

> *Conduct a separate mercury monitoring program (water, sediment, and biota of Whale Tail Lake South Basin), that will be conducted alongside the Core Receiving Environment Monitoring Program and Fisheries and Offsetting Monitoring Plan, with results compared to model predictions. Details of the monitoring program will be provided 60 days following approval of the Type A Water Licence.*

References:

Azimuth (Azimuth Consulting Group Partnership). 2017. Whale Tail Pit project: Predicted changes in Fish Mercury Concentrations in the Flooded Area of Whale Tail Lake (South Basin). Prepared for Agnico Eagle Mines Ltd., Meadowbank Division. February 2017.

NWB Final Submission Update

Agnico Eagle agrees with ECCC's October 17, 2017 rationale and recommendations and will conduct a separate mercury monitoring program alongside the CREMP. Agnico Eagle considers these issues resolved.

Interested Party:	Environment and Climate Change Canada (ECCC)	Ref No.:	ECCC-9
Re:	Sediment Core Analyses		

Technical Review Comment / Recommendation Made By Interested Party:

ECCC recommends that a full suite of testing be conducted on sediment core samples. Recommended analyses include pH, metals, particle size, Total Organic Carbon, Total Phosphorus, and moisture content.

Agnico Eagle's Response to Technical Review Comment / Recommendation:

The sediment core sampling program is routinely done every three years for the analysis of metals, pH and total organic carbon. The intent of the core program is to capture spatial variability and to evaluate the effect of mining operations on surficial sediment metal concentrations. The analytical laboratories require a minimum amount of material to conduct a suite of analyses to the preferred detection limits. There is insufficient material obtained from the independent core samples to analyze for more than metals, pH, and total organic carbon. Agnico Eagle proposes the following protocols which have been developed for the surficial sediment program continue to be applied in the Whale Tail CREMP.

Sediment sampling is done routinely as part of the Meadowbank CREMP (Azimuth 2015) and is planned to be done regularly as part of the Whale Tail CREMP. From the Whale Tail CREMP study design (EIS Volume 8, Appendix 8.E-2) and in response to technical comments ECCC-11 and ECCC-26, surficial sediments will be collected as grab samples (conducted annually) and core samples (conducted every three years). Samples will be collected following the standard operating procedure for sediment sampling (Azimuth 2015, Appendix B) and sediment core sampling (Azimuth 2015, Appendix C). The sediment coring program is a complement to, and not a replacement of, the grab sampling program. The core program is designed to collect 10 independent samples from each sampling area as a means to capture spatial variability and to capture recent changes in sediment metal chemistry (i.e., the top 1.5 cm from a 6.67 cm diameter core are submitted for analysis). The grab sampling program is designed to analyze particle size, total organic carbon, pH, moisture, and metals, to support interpretation of the benthic invertebrate community data (the top 3 to 5 cm from a Ponar grab are submitted for analysis).

For consistency in historical CREMP sampling protocols, laboratory restrictions, and best practice, Agnico Eagle will continue to analyze for a full suite of constituents in the sediment grab samples (as this type of analysis relates to benthic assessment endpoints) and will continue to analyze for metals, pH, and total organic carbon in the core samples.

References:

Azimuth (Azimuth Consulting Group Partnership). 2015. Core Receiving Environment Monitoring Program (CREMP): 2015 Plan Update. Prepared for Agnico Eagle Mines Ltd., Meadowbank Division.

NWB Final Submission Update

Agnico Eagle agrees with ECCC's October 17, 2017 recommendations and has collected sediment core samples in 2017. Agnico Eagle considers these issues resolved.

FISHERIES AND OCEANS CANADA

Interested Party:	Fisheries and Oceans Canada (DFO)	Ref No.:	DFO-3.1
Re:	Freshwater Environment – Habitat Losses		

Technical Review Comment / Recommendation Made By Interested Party:

3.1.1 Request: DFO re-iterates our request that AEM provide the requested illustrations as agreed to by AEM, which DFO would like to receive prior to the commencement of the regulatory phase.

3.1.2 Request: DFO re-iterates our request that AEM provide additional details outlining how they intend to evaluate the potential mixing or non-mixing situation in the pit portion of Whale Tail Lake as the information adopted from Meadowbank's CREMP and Water Quality Monitoring Plan would seem insufficient to do so. If AEM is unable to demonstrate sustainable water quality and habitat suitable for fish in the post-closure scenario, AEM should provide DFO with contingency offsetting options located outside the Whale Tail Lake basin."

3.1.3 Request: DFO re-iterates our requests that AEM provide additional and updated information on the evaluation of end pit lake scenarios, with references, to address the above listed concerns regarding the end pit lake scenario. AEM has noted Gammons et al 2009 which does evaluate the Colomac Gold Mine in NWT. There have been several documents written that would provide a beneficial overview with lessons learned. This information would aid DFO and the proponent in subsequent reviews of the conceptual offsetting plan and monitoring reports. In addition to the monitoring data available for the Colomac Gold Mine (e.g. Colomac Mine site surveillance network program and enhanced natural removal program annual reports), DFO is providing AEM with the following documents to aid in their evaluation: Pieters, R., Coedy, W., Ashley K.I., and Lawrence, G.A. 2015. Artificial circulation of a mine pit lake. Can. J. Civ. Eng. 42:33-43 and Pieters, R. and Lawrence, G.A. 2014. Physical processes and meromixis in pit lakes subject to ice cover. Can. J. Civ. Eng. 41: 569-578.

Agnico Eagle's Response to Technical Review Comment / Recommendation:

Response 3.1.1)

Agnico Eagle believes we have addressed this request by providing plan views of the flooding in Figure 3.10 to 3.12 in the Draft Fish Habitat Offsetting Plan: Whale Tail Pit (submitted June 2017). In addition Agnico Eagle refers DFO to the cross-section of the pits provided to the NIRB and NWB on June 23, 2017 in Agnico Eagle commitment #29 submission. If not sufficient to meet DFOs recommendations, Agnico Eagle agrees to work with the DFO to fulfill this request and will provide the requested illustrations in the Final Fish Habitat Offsetting Plan: Whale Tail Pit. This will be finalized during the DFO authorization phase of the Project.

NWB Final Submission Update

Agnico Eagle agrees with DFO''s rationale and summary dated October 18, 2017. Agnico Eagle considers these issues resolved.

Response 3.1.2)
Agnico Eagle refers DFO to Appendix 8-E.2 of the EIS entitled the Core Receiving Environmental Monitoring Program (CREMP), which is an addendum to Azimuth (2015 – CREMP Updated Plan) which was peer reviewed and developed in collaboration with KivIA, ECCC, DFO, and other stakeholders beginning in 2010, finalized in 2012, updated in 2015, and reviewed annually. Agnico Eagle will adopt CREMP monthly monitoring in the pit during flooding and closure, and agrees with DFO to evaluate the mixing and non-mixing portion of the pit through depth profile, limnological monitoring and depth integrated sampling. However, this monitoring will not be duplicated in the Water Quality and Monitoring Plan as it is consistent with CREMP monitoring with the goal in monitoring of the pits to achieve receiving water quality objectives.

Using lessons learned from Meadowbank Vault Pit Closure during Whale Tail Pit operations, Agnico Eagle will work with the DFO and NWB prior to closure to ensure consistency and safety when adopting the CREMP monitoring in Whale Tail Pit reflooding and closure.

Response 3.1.3)
Agnico Eagle appreciates the DFO's list of references and will provide additional and updated information on the evaluation of end pit lake scenarios in the Final Offsetting Plan. Based on DFO's original feedback on approach to end pit lakes, Agnico Eagle took a conservative approach under a post-closure scenario and assigned zero fisheries value to Habitat Type 10 in deep sections of the Whale Tail Pit. This is presented in the attached Draft Fish Habitat Offsetting Plan: Whale Tail Pit (June 2017), submitted to DFO and KivIA for review on June 28, 2017.

Agnico Eagle's Proposed Term and Condition
Based on DFO recommendations 3.1.1 and 3.1.2 related to pit reflooding, Agnico Eagle proposes the following condition:

> *If the proponent is unable to demonstrate sustainable water quality and habitat suitable for fish in the post-closure scenario, the proponent should provide DFO with contingency offsetting options located outside the Whale Tail Lake basin that would be part of the Final Closure Plan.*

NWB Final Submission Update

Agnico Eagle agrees with DFO's rationale and summary dated October 18, 2017. Agnico Eagle considers these issues resolved.

Interested Party:	Fisheries and Oceans Canada (DFO)	Ref No.:	DFO-3.2
Re:	Freshwater Environment – Valued Components		

Technical Review Comment / Recommendation Made By Interested Party:

3.2.1 Request: DFO requests that AEM give equal weights to species based on presence/absence in the offsetting calculation. DFO also recommends that AEM continue to work with DFO to resolve the equal weighting discrepancy as part of the offsetting plan finalizations. DFO notes that the request to assign equal value to all fish species was part of Commitment #31 from the Technical Meeting in April 2017.

Agnico Eagle's Response to Technical Review Comment / Recommendation:

Agnico Eagle agrees with the DFO. As indicated in Section 2.1.4 of the Draft Fish Habitat Offsetting Plan: Whale Tail Pit (June 2017), as requested by DFO, equal weights were assigned to each of the six species present.

NWB Final Submission Update

Agnico Eagle agrees with DFO's rationale and summary dated October 18, 2017. Agnico Eagle considers these issues resolved.

Interested Party:	Fisheries and Oceans Canada (DFO)	Ref No.:	DFO-3.3
Re:	Freshwater Environment – Habitat Alteration		

Technical Review Comment / Recommendation Made By Interested Party:

3.3.1 Request: DFO requests AEM provide more information regarding the 24 hectares and 3390 linear metres of habitat loss associated with impacted waterbodies in the post-closure scenario that was discussed in the conceptual offsetting plan and how it is captured in the recent fisheries offsetting plan.

3.3.2 Request: DFO requests AEM clarify the calculated numbers for all phases of the project, providing rationale, and request AEM provide the calculations (including the raw data used in the calculations) to determine how these numbers are being reached. DFO continues to reiterate previous comments that AEM omit any habitat gains associated with temporary flooding activities during the operations.

3.3.3 Request: DFO requests AEM provide more information regarding their plan to permanently flood Whale Tail Lake by raising the water level by 0.5m, including the rationale, and ability to sustain this condition so as to provide measurable increases in fisheries productivity. Similar to DFO's concerns respecting the potential losses in fisheries productivity associated with the flooding of the Whale Tail Lake South Basin and surrounding waterbodies, DFO requests this proposed flooding is not included as a gain in the Conceptual Offsetting Plan.

Agnico Eagle's Response to Technical Review Comment / Recommendation:

Response 3.3.1)

Attached is the Draft Fish Habitat Offsetting Plan: Whale Tail Pit, June 2017 (Agnico Eagle, 2017), which was submitted to DFO and KivIA for review on June 28, 2017. The offsetting calculations in Agnico Eagle (2017), captures the request of the DFO and takes into account recommendations provided to Agnico Eagle from the DFO in the Information Request and Technical Comment phase of the review regarding habitat gains, losses, and modifications. Agnico Eagle refers DFO to Tables 3-4 and 3-5 that provide a summary of habitat unit losses under the post closure scenario. Detailed calculation tables are provided in the Appendix B. The methods and results of the supporting field investigations, and the methods used to incorporate those habitat features into the calculation of habitat gains and losses were presented at meetings with DFO and KivIA on November 16, 2016, March 23, 2017, and with DFO on June 9, 2017.

More specifically, the 24 hectares is an outdated calculation that reflected changes in habitat area from baseline to post-closure, including all habitat types (presented in Table 3.2 of the Conceptual Offsetting Report [June 2016]). On June 28, 2017, Agnico Eagle submitted to DFO an updated Draft Fish Habitat Offsetting Plan: Whale Tail Pit June 2017 (Agnico Eagle 2017), for review by DFO and KivIA. In Table B2 of that document there is a change in habitat area from baseline to post-closure, including all habitat types, as presented in Table B2, is an increase of 25.3 ha. If the area of Habitat Type 10 (42.8 ha), as

presented in Table B2, is excluded from the area calculation the calculated change in habitat area from baseline to post-closure is -17.5 ha. (25.3 – 42.8 = -17.5). As recommended by DFO, this is taken into account in the calculation of habitat units, by assigning no habitat value to Habitat Type 10.

Response 3.3.2)
Agnico Eagle refers DFO to the Draft Fish Habitat Offsetting Plan: Whale Tail Pit, June 2017 (Agnico Eagle, 2017), submitted for review on June 28, 2017. More specifically, the summary calculations and supporting data are presented in tabular form in Appendix B. The raw data will be provided to DFO as part of the authorization phase of the project.

Habitat creation is one of four main categories of offsetting identified in the Canadian Science Advisory Secretariat Science Advisory Report 2013/074 (Science Advice on Offsetting Techniques for Managing the Productivity of Freshwater Fisheries. DFO 2013). The original decision to flood the Whale Tail Lake (South Basin) was driven by the results of the Multiple Accounts Analysis, and in the selected option was driven in part by the increased benefits of creating additional fisheries habitat, as per DFO guidance in DFO (2013). Agnico Eagle is of the opinion that the additional habitat that is created through flooding during operations and closure, combined with the increased productivity in Whale Tail Lake (South Basin) due to the transfer of fish biomass from the North Basin to the South Basin and will offset productivity losses due to habitat that is dewatered or otherwise unavailable to fish.

At this time, Agnico Eagle believes that the information discussed with DFO related to complementary measures and Draft Final Offsetting Plan (Agnico Eagle 2017) provided to DFO is sufficient for the NIRB to make a determination on the Whale Tail Pit Project. Agnico Eagle has presented in this document and discussed in great detail a suite of offsetting options that provide sufficient net gains to offset the proposed habitat losses. Should the Project proceed, Agnico Eagle proposes that this be addressed during the DFO authorization phase and that Agnico Eagle will continue to work with DFO and KivIA to finalize offsetting that DFO are agreeable to.

Response 3.3.3)
Agnico Eagle refers DFO to the Draft Fish Habitat Offsetting Plan: Whale Tail Pit, June 2017 (Agnico Eagle 2017), submitted for review to DFO and KivIA on June 28, 2017. Agnico Eagle is of the opinion that increasing the water elevation by 0.5 m on the upstream side of the Mammoth dike is a feasible method to create offsetting habitat for the Project.

Habitat creation is one of four main categories of offsetting identified in the Canadian Science Advisory Secretariat Science Advisory Report 2013/074 (Science Advice on Offsetting Techniques for Managing the Productivity of Freshwater Fisheries. DFO 2013). According to that document, “Aquatic habitat creation is the creation or expansion of aquatic habitat into a previously dry area or terrestrial area.” As stated in the conceptual fisheries offsetting plan (June 2017), this can be achieved by either excavation

or flooding. Flooding is generally an effective and sensible way to create aquatic habitat for offsetting purposes (pers. comm. Cam Portt and Dr. Ken Minns, June 14, 2017).

At this time, Agnico Eagle believes that the information discussed with DFO related to complementary measures (i.e., research projects) and offsetting plans presented in the Draft Final Offsetting Plan (Agnico Eagle 2017) is sufficient for the NIRB to make a determination on the Whale Tail Pit Project. Agnico Eagle has presented in this document and discussed in great detail a suite of offsetting options that provide sufficient net gains to offset the proposed habitat losses. Should the Project proceed, Agnico Eagle proposes that this be addressed during the DFO authorization phase and that Agnico Eagle will continue to work with DFO and KivIA to finalize offsetting that DFO are amenable to.

Agnico Eagle's Proposed Term and Condition

Agnico Eagle will work with DFO and KivIA to finalize the Fish Habitat Offsetting Plan for approval by DFO prior to construction.

References:

DFO (Fisheries and Oceans Canada). 2013. Fisheries Productivity Investment Policy: a proponent's guide to offsetting. Published by: Ecosystem Programs Policy Fisheries and Oceans Canada. Ottawa ON, November 2013.

DFO. 2013. Canadian Science Advisory Secretariat Science Advisory Report 2013/074. Science Advice on Offsetting Techniques for Managing the Productivity of Freshwater Fisheries. Ottawa ON, November 2013.

NWB Final Submission Update

Agnico Eagle agrees with DFO's rationale and summary of October 18, 2017. Agnico Eagle has provided the raw data to DFO and will continue to work with DFO during the authorization phase. Agnico Eagle considers these issues resolved.

Interested Party:	Fisheries and Oceans Canada (DFO)	Ref No.:	DFO-3.4
Re:	Freshwater Environment – Changes to Lake Ecosystem Productivity		

Technical Review Comment / Recommendation Made By Interested Party:

3.4.1 Request: DFO requests clarification on whether the newly proposed changes to the project, specifically in the form of the phosphorus treatment, will still result in a change to the trophic status of the lake.

3.4.2 Request: DFO reiterates the previous comments made in DFO's Technical Submission (Technical Comment 5) submitted in March, 2017. If the trophic status is predicted to change from an oligotrophic state and return again in a few years' time, this would harm fishery productivity and should be considered a loss. DFO requests that the losses caused by a trophic change in the lake ecosystem from nutrient overloading be considered as losses in the calculations for offsetting.

3.4.3 Request: DFO requests clarification on whether AEM is planning on conducting a study in conjunction with University of Manitoba on the change in fisheries productivity due to a change in the lake ecosystem from oligotrophic to eutrophic and back again.

Agnico Eagle's Response to Technical Review Comment / Recommendation:

Response 3.4.1)

Agnico Eagle originally took a worst case scenario approach in water quality modelling, which assumed a discharge water quality "without treatment". As a result, this worst case scenario originally predicted that the lake could transition to a eutrophic lake. As mitigation, Agnico Eagle is committed to treat sewage effluent to 1.0 mg-P/L before it is diverted to the Attenuation Pond and discharged to Mammoth Lake. Updated predictions were provided in the technical memorandum as a response to Technical Commitments 30, 36, 37, and 42, submitted July 11, 2017. As a result, updated predictions indicate that there will be a change in trophic status; it is predicted that nutrients will increase in Mammoth Lake and that it will gradually transition from oligotrophic, to worst case mesotrophic through operations, and back to oligotrophic post-closure.

Response 3.4.2)

A sudden change from oligotrophic to mesotrophic status is not anticipated; rather it is expected that there will be a gradual increase in nutrients through operations, and a gradual decrease in nutrients from the start of closure through post-closure. This increase in nutrients is expected to increase the biomass of phytoplankton, zooplankton, and benthic invertebrates which may also lead to increased growth and production of fish. As a result, Agnico Eagle believes these are not habitat losses and have not accounted for these in the Draft Fish Habitat Offsetting Plan: Whale Tail Pit, June 2017 (Agnico Eagle 2017).

Monitoring with adaptive management will be used to track changes to downstream environments. Mitigations (e.g., hypolimnetic aeration, sediment phosphorus inactivation) can be investigated.

At this time, Agnico Eagle believes that the information provided to DFO is sufficient for the NIRB to make a determination on the Whale Tail Pit Project for environmental assessment purposes. Should the Project proceed, Agnico Eagle proposes that this detail be addressed during the *Fisheries Act* authorization process.

Response 3.4.3)
Based on current predictions and treatment of phosphorus, Mammoth Lake is not expected to become eutrophic. Agnico Eagle will work with the DFO to select the best appropriate research topic and academic institution to develop regional studies related to fisheries productivity in the lake ecosystems near the Whale Tail Pit Project. However, due to the change in downstream predictions, at this point we do not believe the proposed work should be integrated into this research component, as it does not reflect the current downstream water quality predictions.

NWB Final Submission Update

Agnico Eagle agrees with DFO's rationale and summary of October 18, 2017. Agnico Eagle considers these issues resolved.

Interested Party:	Fisheries and Oceans Canada (DFO)	Ref No.:	DFO-3.5
Re:	Monitoring, Mitigation and Management Plans – Water Quality and Flow Monitoring		

Technical Review Comment / Recommendation Made By Interested Party:

3.5.1 Request: DFO requests that AEM place monitoring stations in Whale Tail South Basin, Mammoth Lake and Nemo Lake in the locations or similar to the locations described in the above table. DFO also requests that when sampling at these locations, that multiple depths be sampled at 1, 5 and 10 m, if the location permits, ensuring to always measure for Temperature, Pressure, Dissolved Oxygen, pH, Salinity and Conductivity.

3.5.2 Request: DFO requests that AEM include at least 2 control lake monitoring stations in the Water Quality and Flow Monitoring Plan and include rationale to why the reference lakes that are chosen are appropriate.

3.5.3 Request: DFO requests AEM ensure consistency in sampling frequency i.e. all stations as suggested by DFO are sampled each monitoring year rather than 1 station in year 4 and a different one in year 11 as is currently the case in AEM's Water Quality and Flow Monitoring Plan.

Agnico Eagle's Response to Technical Review Comment / Recommendation:

Response 3.5.1)

Agnico Eagle agrees with the DFO's request and refers the DFO to the Core Receiving Environmental Monitoring Program (CREMP) (EIS Volume 8, Appendix 8-E.2). For specific details refer to:

- Section 2.2.2 - Sampling Areas and Figure 2-2 to 2-5; and
- Section 2.4 describes Whale Tail Lake (South Basin), Mammoth Lake and Nemo Lake monitoring (including limnologic profiling).

Response 3.5.2)

Agnico Eagle agrees with the DFO's request and refers DFO to the Core Receiving Environmental Monitoring Program (CREMP) (EIS Volume 8, Appendix 8-E.2, Section 2.2.2) for details on the sampling areas. As described in Section 2.2.2 the CREMP has 2 reference lakes (or control lakes) referred to as Innuggugayualik Lake and Pipedream Lakes. As previously stated, the receiving water quality monitoring should not be duplicated in the Water Quality and Monitoring Plan, as the evaluation of a control lake associated with project lakes is consistent with CREMP monitoring goal to evaluate impacts in the receiving environments.

Response 3.5.3)
Agnico Eagle agrees with DFO's request and will ensure consistency in sampling locations and frequency according to the DFO request, the Type A Water Licence, and associated management, mitigation, and monitoring plans (i.e., Water Quality and Flow Plan and CREMP).

NWB Final Submission Update

Agnico Eagle agrees with DFO's rationale and summary of October 18, 2017. Please find attached the memo providing a rationale for continued use of CREMP reference lake stations that Agnico Eagle sent to DFO on December 6th, 2017. Agnico Eagle considers these issues resolved.

Attachment 1:

~~Draft Fish Habitat Offsetting Plan: Whale Tail Pit, June 2017~~

Agnico Eagle continues to work with DFO and KIA on finalizing the Fish Habitat Offsetting Plan during the authorization phase. Therefore, Agnico Eagle has not updated the plan for the NWB submission. Please find attached the:

Whale Tail Pit Core Receiving Environment Monitoring Program (CREMP): Rationale for Selection of Reference Areas Pit, November 10, 2017

Technical Memorandum

Date: November 10, 2017

To: Ryan Vanengen, Agnico Eagle Mines

From: Gary Mann and Eric Franz

RE: Whale Tail Pit Core Receiving Environment Monitoring Program (CREMP): Rationale for Selection of Reference Areas

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This technical memorandum presents the rationale for the selection of the two reference lakes (Inuggugayualik Lake [INUG] and Pipedream Lake [PDL]) for the Whale Tail Pit CREMP. Unless cited otherwise, baseline results reported herein were taken from the *Whale Tail Pit Core Receiving Environment Monitoring Program (CREMP): 2014 – 2015 Baseline Studies* report (Azimuth 2016).

Information is presented herein related to the following:

1. Study design
2. Baseline results
3. Potential mining-related changes to the reference lakes

Study Design Background

The CREMP has been formally underway at the Meadowbank Mine since 2006 and targets detecting impacts at the scale of lakes or basins. It is intended to monitor short-term and long-term, basin-wide changes in physical, chemical or biological variables to evaluate potential impacts from all mine-related stressors to the receiving environment. While the basic study design was set prior to the onset of the program (AEMP 2005), it has evolved over time, with a detailed design review conducted to optimize the design from a statistical perspective (Azimuth 2012). During the detailed design review, Agnico Eagle hosted a series of workshops with Nunavut Water Board (NWB) interveners including representatives from the Kivalliq Inuit Association, Hunting and Trapping Organization, Environment Canada and the Department of Fisheries and Oceans. The CREMP was further reviewed by the NWB and discussed during the Meadowbank Type A License renewal. The latest version of the CREMP plan was submitted in 2015 (Azimuth 2015a), with an addendum specifically prepared for the Whale Tail Pit project (Azimuth 2015b).

The CREMP study design is based on a before-after-control-impact (BACI) approach, but also includes the concept of gradients in exposure (e.g., near-field, mid-field, far-field, and reference sampling areas). One of the main advantages of the BACI relative to the more common control-impact (CI) design often used in EEM is that the BACI does not rely on the assumption that the control (reference) and impact (exposure) sampling

areas are inherently the same. Rather, the BACI design assumes that temporal changes in measurable aquatic monitoring endpoints due to natural factors operating at a regional scale (e.g., climatic events) should be consistent between both.

Success of the BACI design relies on having a robust baseline data set to characterize natural variability at both reference and impact areas. Formal CREMP monitoring of INUG and PDL has been conducted since 2006 and 2009, respectively. INUG was the original reference area for the Meadowbank CREMP. PDL was added later to provide a broader reference context for assessing changes. Both of these areas have also been used as reference sites for Cycles 1 to 3 Environmental Effects Monitoring (EEM) at Meadowbank.

General Characteristics

- The exposure and reference lakes are all situated fairly high in their respective watersheds and have no significant inflows or associated sediment inputs.
- Regional geology, topography and climate is similar among lakes.
- Lake size does vary among lakes. Both reference lakes are larger than most of the Whale Tail Pit exposure lakes. While climate-related temporal variability (e.g., a colder summer or higher snowpack winter) may have a stronger response in smaller lakes (i.e., potentially leading to a false-positive conclusion that a climate-driven difference is attributed to mining), the CREMP decision framework looks at several lines of evidence (e.g., plausible exposure pattern related to sources and effects, temporal patterns in exposure and response metrics) to help put natural temporal changes into perspective. As with the Meadowbank CREMP, any changes identified are tracked closely to verify they are simply due to natural variability or are the onset of a mining-related trend.
- Lake depth also vary among lakes. Given the influence of depth on benthic invertebrate communities, the CREMP sampling strategy targets a specific depth zone (6.5 to 9.5 m) to minimize depth-related differences. Water sampling is also conducted at consistent depths across the lakes.

Limnology

Across both exposure and reference lakes:

- The lakes are generally under ice from October through early to mid-July.
- The lakes are generally well mixed throughout the year. The limited periods of thermal stratification that have been observed occur mainly during extended windless periods in the summer months or immediately after ice-off in July.
- The water column in all lakes is typically well oxygenated (e.g., dissolved oxygen is normally around 10 mg/L or higher).

Water Quality

Across both exposure and reference lakes:

- Hardness concentrations in all lakes are low (typically <10 mg/L as $CaCO_3$).
- Buffering capacity (alkalinity as bicarbonate) in all lakes is fairly low (approximately 5 to 10 mg/L).

- pH generally ranges from 6.5 to 7.5.
- Water clarity is high (e.g., turbidity is generally <0.4 NTU and TSS <1 mg/L).
- Nutrient concentrations are low (e.g., nitrate, nitrite and ammonia all <MDL).
- Metals typically <MDL.

These water quality characteristics typically make it relative easy to see meaningful changes related to mining (i.e., given that the baseline conditions are so low).

Sediment Quality

Across both exposure and reference lakes:

- Physical habitat conditions are fairly homogenous, with substrate generally fine and comprised predominantly of silts (i.e., 4 to 63 μm). Total organic carbon (TOC) ranged from approximately 2.5 to 5% at the two reference lakes to approximately 5 to 12% at the exposure lakes. Higher TOC (similar to the Whale Tail Pit exposure lakes) was also seen in Wally Lake in the Meadowbank CREMP; these differences did not appear to translate into consistently different biological communities in Wally Lake relative to the two reference lakes.
- Metals concentrations were similar. Arsenic and chromium were elevated (i.e., above the CCME PEL) across all lakes. Zinc was the only metal elevated in the exposure lakes (Mammoth Lake) that was not also seen elevated in the reference lakes. Notwithstanding, these results are similar to those seen in the Meadowbank CREMP where some metals are naturally elevated due to mineralization. However, studies conducted to support the Meadowbank CREMP indicated that metals bioavailability were low and these sediments are not toxic. The local benthic invertebrate communities have been living in these sediments for millennia.

Overall, while the physical substrate is fairly homogeneous, local mineralization has led to spatially heterogeneous baseline sediment chemistry across both the exposure and reference lakes. Given that some constituents already exceed CCME sediment quality guidelines, lake-specific trigger concentrations will need to be developed to identify any further metals increases related to mining. This approach worked successfully in the Meadowbank CREMP, where chromium concentrations changed in Third Portage Lake related to the material used in the Bay-Goose Dike, leading to targeted studies addressing metals bioavailability.

Biology

- *Phytoplankton*
    - Total biomass was similar across reference and exposure lakes (i.e., generally in the 150 to 300 mg/m^3 range). Biomass was highest immediately after ice-off.
    - Community composition was also similar across lakes, dominated by chrysophytes (golden-brown algae; typically 70 to 90%) followed by diatoms (typically 5 to 10%).
- *Benthic invertebrates*

  - Mean total abundance (#/m^2) ranged from 1039 (Whale Tail Lake North Basin in 2015) to 4509 (Mammoth Lake in 2015), but was typically in the 1200 to 3500 range across both reference and exposure lakes. The exposure lakes generally have higher densities, but not always. Considerable within-lake variability was observed in both years at both reference and exposure lakes.
  - Mean total richness (# taxa/sample) ranged from 9 to 13 at the reference lakes and from 9 to 13 at the exposure lakes.
  - Communities are typically dominated by insect (chironomids) larvae, which always comprise the bulk of the community from both an abundance and richness standpoint.

- *Fish* (Portt and Associates, Baseline Characterization, 2015)
  - A total of six fish species are found in these systems, comprised of four large-bodied species (Lake Trout , Arctic Char, Round Whitefish and Burbot) and two small-bodies species (Slimy Sculpin and Ninespine Stickleback).
  - Lake Trout are the most abundant in gill net catches and the most widely distributed among the lakes, followed by Round Whitefish and Arctic Char.
  - Arctic grayling were not found in mine site lakes nor control lakes.
  - Fish data has been collected at reference lakes since 2009 and thereafter as part of EEM studies.

Potential Mining-Related Changes at Reference Lakes

When Inuggugayualik Lake and Pipedream Lake were selected as reference areas for the Meadowbank CREMP, they were well away from mining activity. However, given their proximity to the Whale Tail Pit Haul Road that leads to the Whale Tail Pit project area, concerns have been raised regarding potential road-related changes to INUG and PDL that could affect their utility as reference areas in the long term (i.e., for both Meadowbank and Whale Tail Pit).

It is also important to note that the spatial scale of inference for the CREMP is at the basin scale for larger lakes, which applies to both reference lakes (i.e., the CREMP uses the specific basins, rather than the whole lakes). Thus, we use “lake” to refer to the lake in general and “sampling area” to refer to the specific basin used in the CREMP.

The below figure shows the Whale Tail Pit Haul Road alignment in relation to the INUG and PDL lakes and their respective sampling areas and the existing Meadowbank Project. The continental divide is situated between the existing Meadowbank Mine (around which the lakes drain through Tehek Lake then SE and eventually to Hudson Bay) and INUG and PDL lakes (which both drain to the north, eventually to the Arctic Ocean). The road is situated along the eastern and northern side of PDL lake. While it is possible that road dust could be blown into the lake under certain conditions, the prevailing winds are from the NW (i.e., blowing dust away from the lake). During prevailing wind conditions it is possible that road dust could be deposited in the small upstream lakes situated along the eastern side of the lakes and transported into PDL lake. However, these inputs would likely be minor and the PDL sampling area is approximately 2 km from the road at the nearest point. The CREMP program has

already demonstrated that it can be used to detect small changes in water quality. Thus, while road-related changes to water quality at the PDL sampling area appear unlikely, monitoring results will be reviewed each year to verify that no abnormal changes have occurred. For the INUG sampling area, exposure to the road is limited to the extreme northern end of the lake where less than 1 km of the road is situated on the western side of a very small basin. Any road-related sediment inputs into this basin would likely either settle or be exported out of the lake to the north. Consequently, it is inconceivable that road-related inputs could affect the INUG sampling area situated approximately 10 km away to the south via the main axis of the lake. However, similar to the PDL sampling area, temporal trends will be followed closely as a precautionary measure.

In summary, the Whale Tail Pit Haul Road is not expected to jeopardize the CREMP reference sampling areas PDL or INUG but year-over-year trends will be monitored to determine any changes during or post-construction. Furthermore, best practices will be followed during the construction and operation of the road, thus minimizing the potential for road-related affects to water quality and are outlined in the Road Management Plan and Emergency Response and Spill Contingency Plan. Water quality monitoring will be conducted at these CREMP stations during both construction and operation of the road to verify the situation.

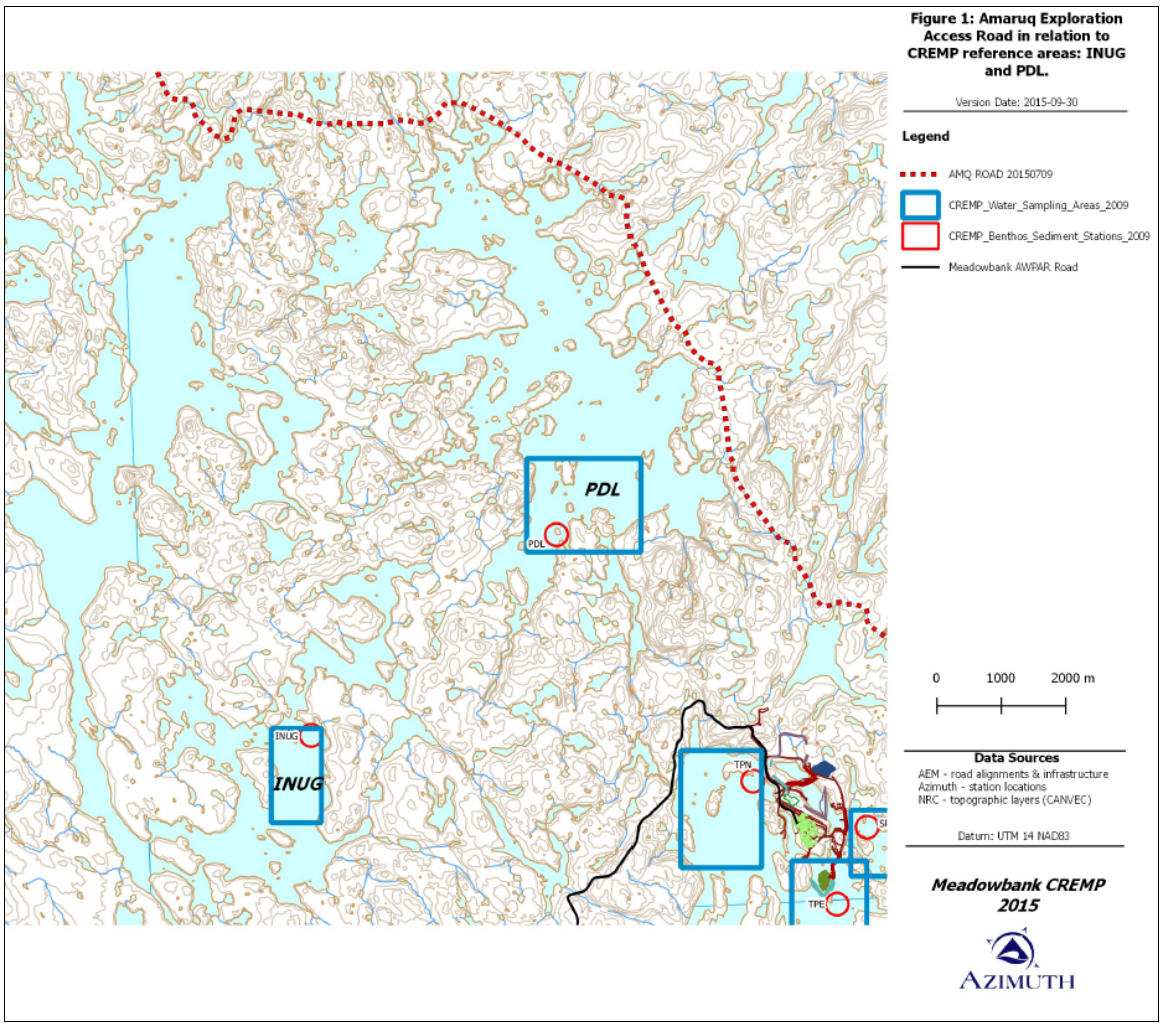

Figure 1: Amaruq Exploration Access Road in relation to CREMP reference areas: INUG and PDL.

Version Date: 2015-09-30

Conclusions

The Meadowbank CREMP has been successfully implemented since 2006. The two existing reference lakes, INUG and PDL, now have extensive monitoring records that provide a good understanding of natural variability over time. While portions of both reference lakes are situated in close proximity to the Whale Tail Pit Haul Road, the lakes are sufficiently large and the actual sampling areas sufficiently far that it seems unlikely that any meaningful road-related changes will occur at the reference areas. The two have been used within a BACI statistical design framework to help identify mining-related changes for the Meadowbank CREMP and are considered suitable for use for the Whale Tail Pit project. As described above, baseline physical, chemical and biological characteristics are similar among the exposure and reference lakes. Notwithstanding, one of the advantages of the BACI framework is that it does not rely on the assumption that reference and exposure areas start out the same; BACI does, however, assume that areas will track consistently in response to natural factors operating at regional scales (e.g., climatic events).

GOVERNMENT OF NUNAVUT

NOTE: This section applies to the NIRB process. Therefore, Agnico Eagle has not updated these responses for the NWB submission.

HEALTH CANADA

NOTE: This section applies to the NIRB process. Therefore, Agnico Eagle has not updated these responses for the NWB submission. .

INDIGENOUS AND NORTHERN AFFAIRS CANADA

Interested Party:	**Indigenous and Northern Affairs Canada (INAC)**	**NIRB Ref No.:**	**INAC-FC-1**
		NWB Ref No.	**INAC-FC-1**
Re:	**Post-Closure WRSF Seepage Affecting Water Quality**		

Technical Review Comment / Recommendation Made By Interested Party:

NIRB

a. WRSF Cover: INAC recommends the Proponent update the waste rock management plans to reduce potential for cover contamination. The updated plans should include an ongoing monitoring program to ensure appropriate rock characterization and management practices are implemented. Results from the monitoring program should be submitted in the Annual Report and also used in seepage quality model revisions. The updated monitoring plan should be provided as part of the water licensing process.

b. WRSF Seepage Management: Based on the uncertainties regarding the likelihood of poor WRSF seepage quality and the severity of the potential impacts should contamination happen, INAC recommends the Proponent revise its seepage monitoring plans to ensure prolonged and intensive monitoring of the WRSF seepage. In addition, the updated monitoring plans should include detailed evaluation of the risks associated with WRSF seepage described above and contingency plans with appropriate mitigation measures to ensure seepage water quality postclosure remains below effluent discharge criteria. The updated monitoring plan should be provided as part of the water licensing process.

c. Conduct Hydrodynamic Modelling of Seepage Discharges: INAC recommends that the Proponent conduct detailed hydrodynamic modelling to evaluate the mixing of WRSF seepage discharges to Mammoth Lake during the post-closure phase of the project. The modelling should evaluate a range of potential seepage discharge scenarios (contaminated cover, increased active zone depth, etc.) and be provided as part of the water licensing process.

NWB

a. WRSF Seepage Management: To manage the low probability but high consequent scenario of water quality from the WRSF being above set criteria as proposed by the applicant at closure and post closure, INAC recommends i) that the waste rock management plan be revised and updated to include more waste rock sampling to provide improved confidence that cover contamination is not occurring, and ii) the monitoring plan for the WRSF and associated attenuation pond be updated to include WRSF seepage monitoring criteria that must be met before AEM considers breaching the dike/dam of the associated attenuation pond. This criteria in addition to specifying acceptable water quality, would include required number of acceptable sampling events that would be necessary to confirm that stable seepage had been attained and over a specified time frame (this may also include increased sampling events during certain times of year e.g., spring freshet).

b. Conduct Hydrodynamic Modelling of Seepage Discharges: INAC recommends that the Applicant conduct detailed hydrodynamic modelling to evaluate the mixing of WRSF seepage discharges to Mammoth Lake during the post-closure phase of the project. The modelling should evaluate a range of potential seepage discharge scenarios (clean/contaminated cover, increased active zone depth, etc.). Any results from the modelling should be incorporated into the appropriate monitoring plan for review and approval.

c. Incremental Security: Due to a number of uncertainties surrounding water quality INAC's security estimate has taken into account the potential for long-term treatment. If in the future, monitoring indicates no exceedances then the applicant can ask for a reduction in security.

Agnico Eagle's Response to Comments / Recommendation:

Responses related to NIRB Final Submission Recommendations:

Response a) and b)

Agnico Eagle agrees with the INAC's recommendations and will adhere to the ARD/ML Testing and Sampling Plan (EIS Volume 8, Appendix 8.E-5), Waste Rock Storage Facility Management Plan (EIS Volume 8, Appendix 8-A.1), Water Management Plan (EIS Volume 8, Appendix 8-B.2), and Water Quality and Flow Monitoring Plan (EIS Volume 8, Appendix 8-B.3) during construction, operations, and closure to inform adaptive management at the Whale Tail Pit Project. Details of the steps involved in waste rock management planning to segregate and store waste rock in its correct location outlined in Golder (2017) will be included in the update to the Waste Rock Management Plan (Agnico Eagle 2017), as well as updates to the other Management Plans to be submitted 60 days prior to operations.

Monitoring of waste rock contact water quality will continue in post-closure as needed following the terms that will be developed for the updated water monitoring plans for the post-closure period of mining. It is expected that the monitoring frequency and duration will be evaluated at that time based on past trends and updated water quality modelling results. Should trigger levels be reached during post-closure monitoring it is understood that the frequency of monitoring may be temporarily increased until a return to satisfactory levels.

Experience and knowledge gained through operations and closure of Meadowbank facilities and that which is to be gained during the construction and operation of Whale Tail will continue to inform final closure and post-closure planning for the Project.

Response c)

Agnico Eagle agrees with INACs recommendation to conduct detailed hydrodynamic modelling to evaluate the mixing of the WRSF seepage into Mammoth Lake post-closure. This will be conducted during operation and closure with updated data on WRSF contact water quality and flow volume to

inform future closure and post-closure water management planning and support the terms of the water licence for the closure period.

Agnico Eagle believes that the information that has been provided to INAC and NIRB is sufficient to assess the impacts of the Whale Tail Pit Project on the environment and to make a determination on the Project.

Responses related to NWB Final Submission Recommendations:

Response a)

Agnico Eagle agrees with INAC's recommendations. Agnico Eagle proposes that specifics to modelling updates, waste rock monitoring frequency, sampling locations, water quality triggers and reporting frequency be detailed in revisions to the Management Plans that will be submitted 60 days prior to operations. The Waste Rock Storage Facility Management Plan (Agnico Eagle 2017), will include details of the steps involved in waste rock management planning to segregate and store waste rock in its correct location outlined in Golder (2017). Additionally, sampling may include, but not limited to, the following:

- Periodic inspection and sampling of waste rock targeted for use as cover material to verify and document the composition of the material
- Periodic inspection and sampling of the south wall and north wall ultramafic rock to verify and document total and leachable arsenic content
- Water quality monitoring at specified locations and frequency to document waste rock contact water quality. This may include accelerated leaching tests field studies to augment data collection given the dry site climate
- Continued studies on the composition and leachability of ultramafic rock. This material will continue to be studied during operation in order to verify model input parameters and inform closure planning
- Thermistor installation and data collection from existing and new instrumentation to be installed as the waste rock pile is built

The updated Management Plans will be submitted 60 days prior to operations.

Response b)

Agnico Eagle agrees with INACs recommendation to conduct detailed hydrodynamic modelling of the WRSF contact water mixing into Mammoth Lake post-closure to evaluate the effects on water quality in Mammoth Lake. This will be completed for scenarios of cover contamination with north wall ultramafic rock previously considered (Golder 2017) and for active layer depth ranges observed at Meadowbank WRSF. Results of this model will inform future closure and post closure water management planning which will be incorporated into the appropriate Monitoring Plans to be submitted 60 days prior to operations.

Response c)
Agnico Eagle agrees with INAC's recommendation and will work with INAC/KivIA to finalize the security estimate to take into account potential for long-term treatment and associated monitoring.

Agnico Eagle acknowledges that long-term monitoring is a component of security and Agnico Eagle proposes that reductions in monitoring requirements may be possible based on actual on-site monitoring data. Agnico Eagle will work cooperatively with INAC and the KivIA to develop a framework for reductions in monitoring requirements and the associated security amounts that may be applied by the NWB to reduce security requirements. Agnico Eagle proposes to submit the framework as an exhibit at the Final Hearing for consideration by the NWB and all parties.

Agnico Eagle anticipates the NWB will consider terms and conditions within the body of the licence (i.e., schedules to the licence) to allow implementation of this framework without requiring a Type A hearing.

Agnico Eagle's Proposed Terms and Conditions:

1. *Conduct detailed hydrodynamic modelling of the WRSF contact water mixing into Mammoth Lake post-closure. Modelling will include scenarios of cover contamination with north wall ultramafic rock previously considered (Golder 2017) and for active layer depth ranges observed at Meadowbank WRSF*
2. *Update the Waste Rock Storage Facility Management Plan (EIS Volume 8, Appendix 8-A.1) details of the steps involved in waste rock management planning to segregate and store waste rock in its correct location outlined in Golder (2017) adapted to Whale Tail open pit and WRSF and additional sampling and monitoring plans*
3. *Updated Monitoring and Management Plans will be submitted 60 days prior to operations*
4. *Finalize the security estimate to take into account potential for long-term treatment and establish a mechanism to progressively reduce the security to be approved by relevant parties*

References:

Agnico Eagle (Agnico Eagle Mines Ltd.). 2017. Whale Tail Pit – Waste Rock Management Plan, Version 1. Prepared by Agnico Eagle, Meadowbank Division. January 2017.

Golder (Golder Associates Ltd.) 2017. Revision 3 – Addendum to Agnico Eagle Mines Whale tail FEIS Appendix 6-H. Sensitivity Analyses on Water Quality Modelling in Support of Responses to Technical Commitments 30, 36, 37, and 42 and Intervenor Comments ECCC #15 and INAC-TRC #3 and #5, on the Water Licence A Application to the Nunavut Water Board. August 24, 2017. Ref: 1658927_Revision 3/6100/6130 Doc 125.

NWB Final Submission Update

Agnico Eagle refers the NWB to INAC's October 17, 2017 submission 2AM-WTP ---- Whale Tail Pit Project – Resolution of Outstanding Issues. Furthermore, Agnico Eagle refers the NWB to exhibit 10 (September 14, 2017- Golder Document No. 145 – Whale Tail Pit – Response Package Clarifications) meeting summary which documents agreement between Agnico Eagle and INAC related to steps forward for water quality modelling and monitoring. Agnico Eagle considers these issues resolved.

Interested Party:	**Indigenous and Northern Affairs Canada (INAC)**	**NIRB Ref No.:**	**INAC-FC-2**
		NWB Ref No.	**INAC-FC-2**
Re:	**Water Quality Affected by Maximum Thaw Depths in the WRSF Cover**		

Technical Review Comment / Recommendation Made By Interested Party:

NIRB

a. Revised Thermal Modelling: The thermal modelling should be calibrated and re-run using ground temperature monitoring data from the Meadowbank site. The findings of the revised thermal modelling should be submitted for review and should inform the detailed WRSF cover designs as part of the water licensing process.

b. Final WRSF Cover Designs: The Proponent's commitment #34 indicated they would use the results of the thermal modelling exercise to support the final design of the WRSF, including that of the proposed cover, and that the revised designs would be submitted prior to the final hearing. INAC notes that the 3.8 m recommended cover thickness determined by the thermal modelling falls within the 2-4 m range originally specified by the Proponent and, on that basis, a revised cover design is not required by INAC prior to the final hearing. However, INAC recommends that a detailed WRSF and cover design incorporates the revised thermal modelling results and be submitted for review and approval as part of the water licensing process.

NWB

a. Revised Thermal Modelling: The thermal modelling should be calibrated and re-run using ground temperature monitoring data from the Meadowbank site. The findings of the revised thermal modelling should be submitted for review and should inform the detailed WRSF cover designs as part of the final closure plan.

b. Final WRSF Cover Designs: The Applicant's commitment #34 indicated they would use the results of the thermal modelling exercise to support the final design of the WRSF, including that of the proposed cover and that the revised designs would be submitted prior to the final hearing. INAC notes that the 3.8 m recommended cover thickness determined by the thermal modelling falls within the 2-4 m range originally specified by the Applicant and, on that basis, a revised final cover design is not required by INAC prior to the final hearing. However, INAC still recommends that the applicant continue to provide constant updates to the modelling to be able to provide more accuracy and confidence in the Final WRSF cover design. The WRSF cover design should make up part of the final closure plan and thus be submitted to the NWB 12 months prior to closure.

c. Incremental Security: Due to a number of uncertainties surrounding the performance of the WRSF, our security estimate has taken into account for mitigation measures, such as long-term water treatment. If in the future, monitoring indicates no exceedances then the applicant can ask for a reduction in security.

Agnico Eagle's Response to Comments / Recommendation:

Responses related to NIRB Final Submission Recommendations:

Response a)

It is understood that INAC is referring to the use of thermal monitoring data from the Meadowbank WRSF (rather than Meadowbank native ground temperature) to calibrate the model. Meadowbank operation installed 14 thermistor strings between 2013 and 2015 at different locations at Portage RSF (Figure 1). Among these strings, 4 were installed in November 2013 (RSF-3 to RSF-6) and 10 in October 2015 (RSF-7 to RSF-16). Considering that on an annual basis the active layer reaches its maximum depth in October, the strings installed in 2013 provide 3 years of readings on the active layer behavior and the temperature of the waste rock pile while the strings installed in 2015 provide only 1 year of data which may not represent stable temperature conditions within the pile.

The 2015 thermistor strings is where an active layer depth greater than 4 m is documented. However, the data collected from these strings are not considered to reliably represent the equilibrium temperature conditions for the entire pile for the purpose of modelling and calibration given that their installation is too recent and the temperature profile provided may not yet be stabilized. Among the 4 thermistors installed in 2013, 2 of them (RSF-4 and RSF-5) are located in the middle of the Portage RSF and can be used for calibration of a 1D model. As these 2 strings show a maximum active layer depth of 4 m, Agnico Eagle considers that all the conclusions and recommendations presented as part of the commitment 39 are still appropriate.

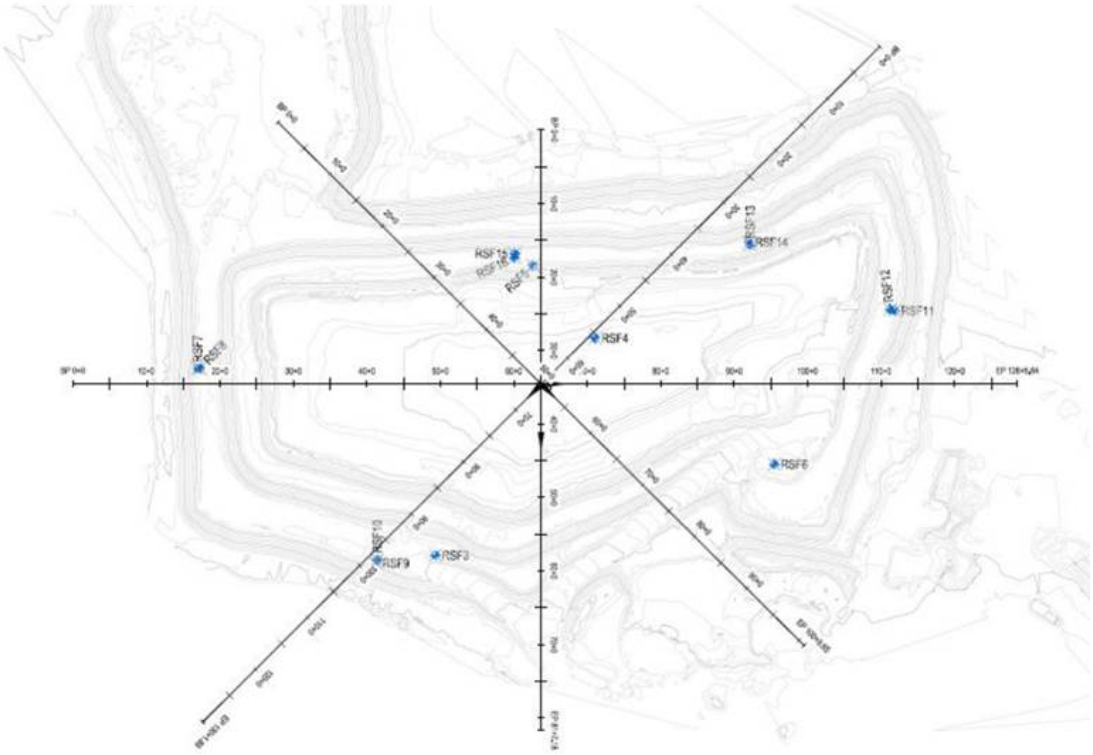

Figure 1: Thermistor strings installed at Portage RSF (provided by Meadowbank Operation)

Response b)
Agnico Eagle recognizes that a cover design based only on temperature data recorded at the Whale Tail WRSF would provide only few years of data for modeling and design. Accordingly, the detail design of the cover for the Whale Tail WRSF will combine Whale Tail WRSF and Meadowbank Portage RSF recorded thermistors data. Detailed design of the Whale Tail cover will be provided 60 days prior to construction, as per condition of Type A Water Licence.

Responses related to NIRB Final Submission Recommendations:
Response a)
Refer to NIRB Response a).

Response b)
Agnico Eagle agrees with the recommendation to update the model to provide more accuracy and confidence in the Final WRSF cover design and to this end, proposes to update the model with stabilized thermistor data obtained from the Meadowbank WRSF in the fall of 2017 after 2 full years of data collection from the strings installed in 2015. Agnico Eagle agrees with the recommendation to include the WRSF cover design as part of closure.

Response c)
Refer to INAC FC-1 for response to this.

NWB Final Submission Update

Agnico Eagle refers the NWB to INAC's October 17, 2017 submission 2AM-WTP ---- Whale Tail Pit Project – Resolution of Outstanding Issues and exhibit 10 (September 14, 2017- Golder Document No. 145 – Whale Tail Pit – Response Package Clarifications) meeting summary which documents agreement between Agnico Eagle and INAC related to steps forward for water quality modelling and monitoring. Agnico Eagle considers these issues resolved.

Interested Party:	**Indigenous and Northern Affairs Canada (INAC)**	**NIRB Ref No.:**	**INAC-FC-3**
		NWB Ref No.	**INAC-FC-3**
Re:	**Post-Closure Water Quality in the Flooded Pit and Whale Tail Lake**		

Technical Review Comment / Recommendation Made By Interested Party:

NIRB

a. Perform Hydrogeological Characterization Studies: INAC recommends that additional hydrogeological characterization studies be performed to address uncertainties and to validate the Proponent's current conclusions regarding hydraulic gradients and arsenic diffusion potential. INAC has looked at the proposed schedule of activities at Whale Tail and interprets there to be enough time during the 2018 field season to undertake these studies prior to the dewatering of Whale Tail Lake and the development of the pit. The studies will serve as an important pre-development baseline and will help to address current uncertainties regarding water quality in the back-flooded pit/lake. If the additional hydrogeological characterization studies indicate that future metals levels are of potential concern, then the importance of establishing a stable stratified pit would be amplified. In that case, INAC recommends the Proponent should undertake a detailed quantitative analysis confirming that stable meromictic conditions will occur within the flooded pit. The analysis should include modelling that demonstrates meromixis will remain stable under a range of conditions (groundwater discharge, high wind, pit wall failure, etc.).

b. Monitoring Plan: Based on the uncertainties regarding the hydrogeological characterization around the area of the projected pit and the severity of the potential impacts should diffusion happen, INAC recommends the Proponent revise its monitoring plans to ensure intensive monitoring of the flooded pit. In addition, the updated monitoring plans should include contingency plans with appropriate mitigation measures to ensure water quality in flooded pit post-closure remains below established discharge criteria. The updated monitoring plan should be provided as part of the water licensing process.

NWB

a. Perform Hydrogeological Characterization Studies: INAC recommends that additional hydrogeological characterization studies be performed to address uncertainties and to validate the Applicant's current conclusions regarding hydraulic gradients and arsenic diffusion potential. INAC has looked at the proposed schedule of activities at Whale Tail and interprets there to be enough time during the 2018 field season to undertake these studies prior to the dewatering of Whale Tail Lake and the development of the pit. The studies will serve as an important pre-development baseline and will help to address current uncertainties regarding water quality in the back-flooded pit/lake.

b. Evaluate Meromixis: If the additional hydrogeological characterization studies indicate that future metals levels are of potential concern, then the importance of establishing a stable stratified pit would

be amplified. In that case, the Applicant should undertake a detailed quantitative analysis confirming that stable meromictic conditions will occur within the flooded pit. The analysis should include modelling that demonstrates meromixis will remain stable under a range of conditions (groundwater discharge, high wind, pit wall failure, etc.).

c. Monitoring Plan: To supplement the monitoring plans already submitted by the Applicant, INAC recommends that a revised and updated monitoring plan for the flooded pit of the Whale Tail Project be submitted to the NWB for review and approval prior to construction. The updated plan would include specified criteria that must be met before the flooded pit is considered to be effectively closed and any breaching of dams/dikes to be considered. In addition to specifying acceptable water quality, the criteria would include a required number of acceptable sampling events that would be necessary to confirm that stable conditions had been attained (this may include increased sampling events during certain times of year, etc).

Responses related to NIRB Final Submission Recommendations:

Response a)

Agnico Eagle agrees with INACs recommendation to conduct detailed hydrogeological characterization studies to evaluate the hydraulic gradients and further assess the potential for arsenic diffusion of the pit walls. Data will be collected during construction and operation to verify inputs to water quality modelling. The results will inform hydrogeological modelling and will be conducted to inform future closure and post-closure water quality predictions. Should results of the hydrogeological modelling suggest that arsenic diffusion may result in elevated concentrations in the flooded pit in post-closure, then hydrodynamic modelling of the flooded pit lake will be performed to assess the occurrence and stability of meromixis. Of note is that the current open pit lake model considers fully mixed conditions within the open pit and within the above North Whale Tail Lake. Fully mixed conditions assume that constituent concentrations are equally distributed in the water body and thus, represent worst case concentrations at the open pit and North Whale Tail Lake surfaces than would occur if stable meromixis was to develop.

Agnico Eagle believes that the information that has been provided to INAC and NIRB is sufficient to assess the impacts of the Whale Tail Pit Project on the environment and to make a determination on the Project. Agnico Eagle proposes that specifics to modelling and monitoring the hydrogeology be included in updated Management Plans to be submitted 60 days prior to construction.

Agnico Eagle's Proposed Terms and Conditions:

1. *The Proponent shall conduct a hydrogeological characterization study plan to validate hydraulic gradients and verify the potential for arsenic diffusion from submerged Whale Tail*

pit walls. The results of the hydrogeological studies shall be provided for review on an annual basis.

2. *If warranted, the pit design shall be revised and/or appropriate mitigation measures should be developed to incorporate the results from the additional studies. The Proponent shall report the results of the hydrogeological characterization and their implications to the pit design and relevant management plans for review prior to pit construction.*
3. *Should results of modelling suggest that arsenic diffusion may result in elevated concentrations in the flooded pit post-closure, the Proponent shall perform detailed hydrodynamic modelling of the flooded pit lake prior to closure to evaluate meromixis and flooded pit lake water quality. The results of modelling shall be provided for review prior to pit closure.*

NWB Final Submission Update

Agnico Eagle refers the NWB to INAC's October 17, 2017 submission 2AM-WTP ---- Whale Tail Pit Project – Resolution of Outstanding Issues and exhibit 10 (September 14, 2017- Golder Document No. 145 – Whale Tail Pit – Response Package Clarifications) meeting summary which documents agreement between Agnico Eagle and INAC related to steps forward for water quality modelling and monitoring. Agnico Eagle considers these issues resolved.

Interested Party:	**Indigenous and Northern Affairs Canada (INAC)**	**NIRB Ref No.:**	**INAC-FC-4**
		NWB Ref No.	**INAC-FC-4**
Re:	**Availability of Cover Material**		

Technical Review Comment / Recommendation Made By Interested Party:
INAC is satisfied with the Proponent's responses and considers the issue resolved.

Agnico Eagle's Response to Technical Review Comment / Recommendation:
Agnico Eagle acknowledges that based information provided by Agnico Eagle (April 2017 Technical Comment Response INAC-TRC #1), INAC supports the conclusion that sufficient clean waste rock is available to construct the conceptual cover specified in the EIS (i.e., a cover that is 2 to 4 m thick) with sufficient contingency for design modifications.

NWB Final Submission Update

Agnico Eagle refers the NWB to INAC's October 17, 2017 submission 2AM-WTP ---- Whale Tail Pit Project – Resolution of Outstanding Issues. Agnico Eagle considers this resolved.

Interested Party:	**Indigenous and Northern Affairs Canada (INAC)**	**NIRB Ref No.:**	**INAC-FC-5**
		NWB Ref No.	**n/a**
Re:	**Revegetation Research**		

Technical Review Comment / Recommendation Made By Interested Party:
INAC is satisfied with the Proponent's responses and considers the issue resolved.

Agnico Eagle's Response to Technical Review Comment / Recommendation:
Agnico Eagle acknowledges INAC is satisfied with the re-vegetation research strategy and maintains its commitment from April 2017 Technical Comment Response (INAC-TRC #8) to initiate the design and implementation of re-vegetation studies to better define re-vegetation strategies that are applicable to the reclamation of comparable northern developments.

NWB Final Submission Update

Agnico Eagle refers the NWB to INAC's October 17, 2017 submission 2AM-WTP ---- Whale Tail Pit Project – Resolution of Outstanding Issues. Agnico Eagle considers this resolved.

Interested Party:	**Indigenous and Northern Affairs Canada (INAC)**	**NIRB Ref No.:**	**INAC-FC-6**
		NWB Ref No.	**INAC-FC-5**
Re:	**Ammonia and Nitrate Levels from Explosive Use**		

Technical Review Comment / Recommendation Made By Interested Party:
INAC is satisfied with the Proponent's responses and considers the issue resolved.

Agnico Eagle's Response to Technical Review Comment / Recommendation:
Acknowledged.

NWB Final Submission Update

Agnico Eagle refers the NWB to INAC's October 17, 2017 submission 2AM-WTP ---- Whale Tail Pit Project – Resolution of Outstanding Issues. Agnico Eagle considers this resolved.

Interested Party:	**Indigenous and Northern Affairs Canada (INAC)**	**NIRB Ref No.:**	**n/a**
		NWB Ref No.	**INAC-FC-6**
Re:	**Meadowbank Tailings Management**		

Technical Review Comment / Recommendation Made By Interested Party:

NWB

a. Meadowbank Tailings Management: INAC recommends that the Applicant submit a stand-alone revised and updated tailings management plan for review and approval under the Meadowbank Water Licence 2AM-MEA1525. The plan should include but not be limited to: confirmation of capacity of the facility, details on how increase tailing loadings from Whale Tail will not have any adverse effects on the facility and details on the increase in berm height of the South Cell.

Agnico Eagle's Response to Technical Review Comment / Recommendation:

Agnico Eagle agrees with the INAC recommendation and submitted a stand-alone Meadowbank Tailings Management Plan on January 25, 2017 to the NWB entitled Appendix WT – Meadowbank Tailings Management Plan, Whale Tail Pit. Agnico Eagle will also submit an updated and stand-alone Meadowbank Mine Waste Rock Storage Facility Plan that will be required, 60 days following approval of the amended Meadowbank Water Licence 2AM-MEA1525.

NWB Final Submission Update

Agnico Eagle refers the NWB to INAC's October 17, 2017 submission 2AM-WTP ---- Whale Tail Pit Project – Resolution of Outstanding Issues. Agnico Eagle considers this resolved.

Interested Party:	**Indigenous and Northern Affairs Canada (INAC)**	**NIRB Ref No.:**	**INAC-FC-7**
		NWB Ref No.	**n/a**
Re:	**Public Consultation and Incorporation of Community Concerns in EIS**		

NOTE: This section applies to the NIRB process. Therefore, Agnico Eagle has not updated this response for the NWB submission.

Interested Party:	**Indigenous and Northern Affairs Canada (INAC)**	**NIRB Ref No.:**	**n/a**
		NWB Ref No.	**INAC-FC-7**
Re:	**Term of Meadowbank Water Licence**		

Technical Review Comment / Recommendation Made By Interested Party:

NWB

a. Meadowbank Licence Term: INAC recommends that the Applicant's amendment application for the Meadowbank water licence 2AM-MEA1525 include amending the term of licence to 2026 in order to reflect the planned and proposed water use.

Agnico Eagle's Response to Technical Review Comment / Recommendation:

Agnico Eagle agrees with the INAC recommendation to extend the term of the licence 2AM-MEA1525 to 2026. To be consistent with this recommended extension, if deemed appropriate, Agnico Eagle also requests the NWB consider the term of 2AM- WTP---- to be until 2026.

NWB Final Submission Update

Agnico Eagle refers the NWB to INAC's October 17, 2017 submission 2AM-WTP ---- Whale Tail Pit Project – Resolution of Outstanding Issues. Agnico Eagle considers this resolved.

Interested Party:	**Indigenous and Northern Affairs Canada (INAC)**	**NIRB Ref No.:**	**INAC-FC-8**
		NWB Ref No.	**n/a**
Re:	**Socio-Economic Component of Closure Plan**		

NOTE: This section applies to the NIRB process. Therefore, Agnico Eagle has not updated this response for the NWB submission.

Interested Party:	**Indigenous and Northern Affairs Canada (INAC)**	**NIRB Ref No.:**	**INAC-FC-9**
		NWB Ref No.	**n/a**
Re:	**Framework for Monitoring of Project Impacts**		

NOTE: This section applies to the NIRB process. Therefore, Agnico Eagle has not updated this response for the NWB submission.

KIVALLIQ INUIT ASSOCIATION

Interested Party:	Kivalliq Inuit Association (KivIA)	Ref No.:	KivIA-Terrestrial-01
Re:	Uncertainty in caribou responses to Whale Tail haul road		

NOTE: This section applies to the NIRB process. Therefore, Agnico Eagle has not updated this response for the NWB submission.

Interested Party:	Kivalliq Inuit Association (KivIA)	Ref No.:	KivIA-Terrestrial-02
Re:	Uncertainty in cumulative effects on caribou distribution		

NOTE: This section applies to the NIRB process. Therefore, Agnico Eagle has not updated this response for the NWB submission.

Interested Party:	Kivalliq Inuit Association (KivIA)	Ref No.:	KivIA-Terrestrial-03
Re:	Caribou mitigation in the Terrestrial Ecosystem Management Plan (TEMP)		

NOTE: This section applies to the NIRB process. Therefore, Agnico Eagle has not updated this response for the NWB submission.

Interested Party:	Kivalliq Inuit Association (KivIA)	Ref No.:	KivIA-Terrestrial-04
Re:	Uncertainty in effects of Whale Tail pit and haul road activities on caribou distribution (Zone of Influence)		

NOTE: This section applies to the NIRB process. Therefore, Agnico Eagle has not updated this response for the NWB submission.

Interested Party:	Kivalliq Inuit Association (KivIA)	Ref No.:	KivIA-Terrestrial-05
Re:	Herd management planning and cumulate effects		

NOTE: This section applies to the NIRB process. Therefore, Agnico Eagle has not updated this response for the NWB submission.

Interested Party:	Kivalliq Inuit Association (KivIA)	Ref No.:	KivIA-Terrestrial-06
Re:	Uncertainty in using collars to describe incremental and cumulative effects		

NOTE: This section applies to the NIRB process. Therefore, Agnico Eagle has not updated this response for the NWB submission.

Interested Party:	Kivalliq Inuit Association (KivIA)	Ref No.:	KivIA-Freshwater
Re:	Freshwater Environment (Commitment numbers 30, 36, 37 and 42 Appendix F, NIRB's pre-hearing conference decision)		

NOTE: This section applies to the NIRB process. Therefore, Agnico Eagle has not updated this response for the NWB submission.

Interested Party:	Kivalliq Inuit Association (KivIA)	Ref No.:	KivIA-Atmospheric
Re:	Atmospheric Environment (Commitment number 7, Appendix F, NIRB's pre-hearing conference decision)		

NOTE: This section applies to the NIRB process. Therefore, Agnico Eagle has not updated this response for the NWB submission.

NATURAL RESOURCES CANADA

Interested Party:	Natural Resources Canada (NRCan)	Ref No.:	NRCan-Issue 1-Permafrost & Terrain
Re:	Baseline Permafrost and Terrain Conditions in the Project Area		

Technical Review Comment / Recommendation Made By Interested Party:

NRCan recommends that the Proponent complete the geotechnical investigations planned and update the characterization of ground ice conditions in the project area to support detailed and final design of project components.

Agnico Eagle's Response to Technical Review Comment / Recommendation:

At this time, Agnico Eagle believes the information that has been provided to NRCan and NIRB is sufficient to assess the impacts of the Whale Tail Pit Project on the environment and to make a determination on the Project. Agnico Eagle agrees with NRCan's recommendations to support detailed and final design of Project Components for the purpose of the Type A Water Licence, Agnico Eagle proposes to provide the geotechnical characterizations within the applicable final designs required 60 days prior to construction.

NWB Final Submission Update

NRCan confirmed during the NIRB public hearing that it considered these issues resolved. For detailed rationale, Agnico Eagle refers the NWB to NRCan's presentation to the NIRB as set out in the NIRB Whale Tail Public Hearing Transcripts, Vol. 3, Pages 551-560 and Vol. 4, Pages 768-769. Agnico Eagle considers this resolved.

Interested Party:	Natural Resources Canada (NRCan)	Ref No.:	NRCan-Issue 2-Permafrost & Terrain
Re:	**Design Cover Thickness for the Waste Rock Storage Facility**		

Technical Review Comment / Recommendation Made By Interested Party:

NRCan recommends:

- *The Proponent conduct 2D thermal modelling to support detailed and final design of the WRSF including refinement of the cover thickness, and*
- *The Proponent continue to utilize data generated from the Meadowbank monitoring program and data collected from any thermistors installed in the Whale Tail WRSF as well as additional information on material properties of the site, to refine their thermal analysis to support final design and cover design.*

Agnico Eagle's Response to Technical Review Comment / Recommendation:

Although an updated model was submitted to NIRB/NWB on July 11, 2017, Agnico Eagle agrees with NRCan and will continue to complete thermal modelling to support detailed and final design of the WRSF during the construction and operational phase. Furthermore, Agnico Eagle agrees with NRCan to use data generated from Meadowbank monitoring to refine the thermal analysis to support the final design and cover for the Whale Tail Pit WRSF.

At this time, Agnico Eagle believes that the information that has been provided to NRCan and NIRB is sufficient to assess the impacts of the Whale Tail Pit Project on the environment and to make a determination on the Project.

Agnico Eagle proposes that specifics to modelling and monitoring the Whale Tail Waste Rock Facility be considered in further detail during the water licensing process. If deemed appropriate by NIRB and NWB, Agnico Eagle submits NRCan's recommendation could be reflected in the Type A Water Licence. Recommendations can be incorporated to support detailed and final design of Project Components and Agnico Eagle proposes to provide the information within the applicable final designs required 60 days prior to construction.

NWB Final Submission Update

NRCan confirmed during the NIRB public hearing that it considered these issues resolved. For detailed rationale, Agnico Eagle refers the NWB to NRCan's presentation to the NIRB as set out in the NIRB Whale Tail Public Hearing Transcripts, Vol. 3, Pages 551-560 and Vol. 4, Pages 768-769. Agnico Eagle considers this resolved.

Interested Party:	Natural Resources Canada (NRCan)	Ref No.:	NRCan-Issue 3-Permafrost & Terrain
Re:	Permafrost and Talik Distribution in the Project Area		

Technical Review Comment / Recommendation Made By Interested Party:

In their response to NRCan's submission, the Proponent described, but did not provide details of additional thermal analysis similar to that suggested by NRCan, along a transect north of the pit southward through the middle of Whale Tail Lake. The results were consistent with the EIS with a north to south transition from no talik to closed talik to open talik south of the pit. NRCan appreciates the efforts of the Proponent to conduct the additional analysis. NRCan notes that the Proponent does recognize that the talik in the pit area is not completely closed and there is likely to be a hydraulic connection between the pit and the deeper groundwater system due to the open talik to the south of the pit. NRCan agrees that the Proponent has conducted a reasonable analysis at this stage to determine the distribution of permafrost in pit and adjacent areas. The Proponent however, might consider for final design and to refine groundwater modelling, to conduct a sensitivity analysis to deal with any uncertainties in thermal model parameters such as ground thermal regime, thermal properties and thermal gradient

Agnico Eagle's Response to Technical Review Comment / Recommendation:

Agnico Eagle appreciates NRCan's review comments. Agnico Eagle agrees with NRCan and will continue to update and refine the ground water modeling to support Whale Tail Pit site wide hydrogeological model.

At this time, Agnico Eagle believes that the information that has been provided to NRCan and NIRB is sufficient to assess the impacts of the Whale Tail Pit Project on the environment and to make a determination on the Project.

Agnico Eagle agrees with NRCan's recommendations to support detailed and final design of Project Components for the purpose of the Type A Water Licence Agnico Eagle proposes to provide the additional hydrogeological model report within the applicable final designs required 60 days prior to construction.

NWB Final Submission Update

NRCan confirmed during the NIRB public hearing that it considered these issues resolved. For detailed rationale, Agnico Eagle refers the NWB to NRCan's presentation to the NIRB as set out in the NIRB Whale Tail Public Hearing Transcripts, Vol. 3, Pages 551-560 and Vol. 4, Pages 768-769. Agnico Eagle considers this resolved.

Interested Party:	Natural Resources Canada (NRCan)	Ref No.:	NRCan-Issue 1-Hydrogeology
Re:	Groundwater Sampling		

Technical Review Comment / Recommendation Made By Interested Party:

NRCan is satisfied with the proponent's sampling strategy (Volume 6 Freshwater Environment, Section 6.2.5 Monitoring and Follow-Up).

Agnico Eagle's Response to Technical Review Comment / Recommendation:

Agnico Eagle acknowledges that NRCan is satisfied with the groundwater sampling strategy outlined Volume 6, Section 6.2.5 of the FEIS.

NWB Final Submission Update

NRCan confirmed during the NIRB public hearing that it considered these issues resolved. For detailed rationale, Agnico Eagle refers the NWB to NRCan's presentation to the NIRB as set out in the NIRB Whale Tail Public Hearing Transcripts, Vol. 3, Pages 551-560 and Vol. 4, Pages 768-769. Agnico Eagle considers this resolved.

Interested Party:	Natural Resources Canada (NRCan)	Ref No.:	NRCan-Issue 2-Hydrogeology
Re:	Long-term Water Quality in the Flooded Pit		

Technical Review Comment / Recommendation Made By Interested Party:

NRCan is satisfied with the monitoring programs provided in the Water Quality and Flow Monitoring Plan (Version 2, May 2017).

NRCan is in agreement with the proponent's approach to continue to verify the hypothesis that the pit acts as a recharge area using continuous monitoring throughout the mine's life. Commitment # 32 (NRCan #6) in the PHC decision table.

Agnico Eagle's Response to Technical Review Comment / Recommendation:

Agnico Eagle acknowledges that NRCan is satisfied with the water quality monitoring programs as outlined in Version 2 of the Water Quality and Flow Monitoring Plan, submitted May 24, 2017 to the NIRB and NWB.

Further, Agnico Eagle maintains its commitment from April 2017 Technical Comment Response (NRCan 6) to continue to verifying the hypothesis that the pits acts as a recharge area using continuous monitoring throughout the mine's life which will be reported in the annual monitoring report.

NWB Final Submission Update

NRCan confirmed during the NIRB public hearing that it considered these issues resolved. For detailed rationale, Agnico Eagle refers the NWB to NRCan's presentation to the NIRB as set out in the NIRB Whale Tail Public Hearing Transcripts, Vol. 3, Pages 551-560 and Vol. 4, Pages 768-769. Agnico Eagle considers this resolved.

Interested Party:	Natural Resources Canada (NRCan)	Ref No.:	NRCan-Issue 3-Hydrogeology
Re:	**Groundwater Quality**		

Technical Review Comment / Recommendation Made By Interested Party:

NRCan has reviewed the new information provided in the Water Quality and Flow Monitoring Plan, version 2, May 2017 and is satisfied with the responses provided including updating the groundwater model, the water management plan and the inclusion of additional water quality monitoring locations annually and during all phases of the project.

Agnico Eagle's Response to Technical Review Comment / Recommendation:

Agnico Eagle acknowledges that NRCan is satisfied with the updates made in Version 2 of the Water Quality and Flow Monitoring Plan, submitted May 24, 2017 to the NIRB and NWB.

NWB Final Submission Update

NRCan confirmed during the NIRB public hearing that it considered these issues resolved. For detailed rationale, Agnico Eagle refers the NWB to NRCan's presentation to the NIRB as set out in the NIRB Whale Tail Public Hearing Transcripts, Vol. 3, Pages 551-560 and Vol. 4, Pages 768-769. Agnico Eagle considers this resolved.

Interested Party:	Natural Resources Canada (NRCan)	Ref No.:	NRCan-Issue 4-Hydrogeology
Re:	**Groundwater Modelling**		

Technical Review Comment / Recommendation Made By Interested Party:

NRcan has reviewed the new information provided (Water Quality and Flow Monitoring Plan, version 2, May 2017), and the PHC decision table and is satisfied with the responses provided. Commitment # 33 for NRCan recommendation # 7 that the proponent will continue to monitor the groundwater conditions and the hydrogeological characterization of the Whale Tail Pit according to the EIS volume 8, Appendix 8-E3.

Agnico Eagle's Response to Technical Review Comment / Recommendation:

Agnico Eagle acknowledges NRCan's comment and maintains its commitment from April 2017 Technical Comment Response (NRCan 7) to continue to monitor the groundwater conditions and the hydrogeological characterization of the Whale Tail Pit according to the FEIS Volume 8, Appendix 8-E.3.

NWB Final Submission Update

NRCan confirmed during the NIRB public hearing that it considered these issues resolved. For detailed rationale, Agnico Eagle refers the NWB to NRCan's presentation to the NIRB as set out in the NIRB Whale Tail Public Hearing Transcripts, Vol. 3, Pages 551-560 and Vol. 4, Pages 768-769. Agnico Eagle considers this resolved.

TRANSPORT CANADA

NOTE: This section applies to the NIRB process. Therefore, Agnico Eagle has not updated this response for the NWB submission.