



DFO Final Comment # 3.1		
Summary of the Issue		
DFO was concerned about the habitat losses that will incur from the Whale Tail Pit project. DFO requested additional information on the end pit lake scenario in order to better understand Agnico Eagle's plans and the risks involved regarding fish and fish habitat. It is important to understand potential negative impacts that may persist into mine closure and reclamation and that permanent impacts are effectively offset.		
DFO Recommendations	Purpose of Recommendation	Resolution
3.1.2: DFO requests that AEM provide additional details outlining the potential mixing or non-mixing in the pit portion of Whale Tail Lake as there is insufficient information as adopted from Meadowbank's CREMP and Water Quality Monitoring Plan to do so. If sustainable water quality and habitat suitable for fish in the post-closure scenario cannot be demonstrated, DFO requests AEM provide DFO with contingency offsetting options located outside the Whale Tail Lake basin.	DFO is uncertain how AEM will effectively monitor the mixing or non-mixing in the pit. DFO is also concerned that water quality from the pit could negatively affect the remainder of the lake and fish habitat. AEM also concluded in its FEIS that there will be no mixing between the pit water and the overlying water, though no rationale for this key conclusion is provided (either based on other locations, wind impact analysis, or temperature induced mixing).	DFO acknowledges Agnico Eagle's commitment in their Final Submission Response to evaluate the mixing and non- mixing of the pit through depth profile, limnological monitoring and depth integrated sampling which will aid in assessing the potential for end-pit lakes to support self-sustaining fish populations. Since the Nunavut Impact Review Board final hearing, DFO has had discussions with the proponent as well as ECCC and INAC regarding the monitoring plans and water quality objectives. ECCC and INAC are working with Agnico Eagle to resolve issues involving the monitoring plans. DFO will rely on the expertise of ECCC and INAC with respect to water quality and is satisfied that these issues can be resolved in the authorization phase.
3.1.3: DFO requests that AEM provide additional and updated information on the evaluation of end pit lake scenarios, with references, to address DFO's concerns regarding long term water quality and physical habitat in the proposed end pit lakes. DFO notes this information was requested in its Technical submission.	DFO acknowledges the efforts by Agnico to address uncertainty respecting the successful creation of an end pit lake that can support healthy self-sustaining fish populations; however sufficient information to support consideration of the post-closure pit as fish habitat is not yet available. As such, additional offsetting measures should also be explored.	Since the conclusion of the NIRB hearing, DFO met with Agnico on September 23, 2017 in efforts to further resolve outstanding issues. Fisheries and Oceans Canada will work with Agnico during the authorization phase to ensure all residual losses to fish and fish habitat are accounted for, including accounting for a permanent loss of productivity associated with the draining of the northern portion of Whale Tail Lake, and fully offset.



DFO Final Comment # 3.2		
Summary of the Issue		
It is important that all fish species are weighted equally when DFO is evaluating potential fishery losses and gains in AEM's offsetting plans. All fish as listed in the Local Study Area are species of fishery and fishery support value in Nunavut.		
DFO Recommendations	Purpose of Recommendation	Resolution
3.2.1: DFO requests that AEM give equal weights to species based on presence/absence in the offsetting calculation. 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.	Although DFO acknowledges that AEM has agreed to assign a weighting for each species, DFO disagrees with AEM on the equal weighting calculation, as AEM uses other contribution factors such as biomass, fishery and cultural contributions in their calculations. Instead, species presence/absence should be given equal weighting.	In their final response, Agnico Eagle agreed to give equal weights to species. In addition, after a meeting on September 23, 2017, Agnico Eagle agreed to continue working with DFO to resolve issues in the authorization phase.

DFO Final Comment # 3.3		
Summary of the Issue		
It is important to understand all impacts associated with flooding extending over multiple waterbodies in order to properly evaluate and calculate fishery losses and create offsetting plans. The alteration of streams due to flooding may have negative effects on the fishery and as such would not be considered as productivity gains or habitat gains, but rather a loss in current functional stream habitat.		
DFO Recommendations	Purpose of Recommendation	Resolution
3.3.2: DFO requests AEM clarify the calculated numbers for habitat losses for all phases of the project, including providing the rationale and raw data for the calculations.	In the draft Fish Habitat Offsetting Plan, it is unclear whether habitat units associated with the flooding activities are still being considered as functional habitat 'gains'. DFO requested to see the raw data to better understand the calculations made involving habitat units and offsetting.	In their final response, Agnico Eagle agreed to provide raw data and calculations during the authorization phase. During a meeting on September 23, 2017, DFO and Agnico Eagle discussed potential offsetting measures and the topic of flooding. Agnico Eagle has committed to working with DFO on these issues during the authorization phase. DFO is satisfied that the losses and potential gains associated with flooding of terrestrial areas can be appropriately considered in the authorization phase.
3.3.3: DFO requests AEM provide more information regarding their plan to permanently flood Whale Tail Lake by raising the water level by 0.5m, including an analysis of the long-term sustainability of the higher water condition and a clear rationale for considering it a habitat gain.	DFO is unclear on what mechanisms will be used to ensure the lake will remain at this increased water level in perpetuity and requires more information on the plans to make this permanent increase happen. In addition, DFO is not confident that this type of flooding and associated increase in lake surface area will result in a productive habitat gain.	



DFO Final Comment # 3.4		
Summary of the Issue		
DFO is concerned about the condition of Mammoth Lake and the effects on fish and fish habitat from nutrient overloading. It is important to understand the changes to lake ecosystem productivity when altering the lakes natural condition.		
DFO Recommendations	Purpose of Recommendation	Resolution
3.4.2: 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.	AEM states that the average and maximum concentrations will remain above the oligotrophic to mesotrophic trigger which suggests that despite phosphorus treatment and attempts at mitigation, the nutrient loading could still be high enough to trigger a trophic change to the lake ecosystem. If this is the case, this kind of ecosystem change could have detrimental effects to the fishery. In addition, due to the short timeframe predicted for this change to occur (2-3 years), monitoring this change and any changes associated with the fishery productivity would be difficult.	Since the conclusion of the NIRB hearing, DFO met with Agnico on September 23, 2017 in efforts to further resolve outstanding issues. It was agreed that a study by Agnico to determine if a change in trophic status from oligotrophic to mesotrophic would positively or negatively affect fish productivity, would address the outstanding concerns by DFO related to this issue. Thus, DFO is satisfied that this issue can be resolved in the authorization phase.
3.4.3: 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.	On May 18, 2017, when discussing proposed research studies for complementary offsetting, AEM proposed completing a study on the proposed change from an oligotrophic lake to a eutrophic lake and back again. DFO is unclear if AEM is still planning to complete this study since the proposed changes.	In their final response, Agnico Eagle stated that the study on a trophic change to oligotrophic would no longer be appropriate since the lake will no longer undertake a trophic change to oligotrophic. DFO agrees with this statement, however, further asked if a study could still be completed measuring the change to a mesotrophic status. In discussions since the Nunavut Impact Review Board final hearing, Agnico has agreed to work with DFO to discuss which studies will be completed and deciding on detailed plans. DFO is satisfied that this issue can be resolved during the authorization phase. (see also response above)



DFO Final Comment # 3.5		
Summary of the Issue It is important for AEM to have an appropriate number of monitoring stations to assess impacts to water quality during operations and post-closure in order to validate their assumptions in the environmental assessment. In addition, since studies are proposed to be undertaken for offsetting measures, more rigorous monitoring will be required for these studies to produce effective results.		
DFO Recommendations	Purpose of Recommendation	Resolution
3.5.1: 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 table provided in DFO's Final Written Submission. DFO also requests that multiple depths, temperature, Pressure, Dissolved Oxygen, pH, Salinity and Conductivity be sampled at all locations.	DFO notes that AEM has referenced the CREMP in discussing planned monitoring stations in past conversations. It is important to DFO and the future offsetting requirements that appropriate monitoring stations are captured in the Water Quality and Flow Monitoring Plan. Considering the inconsistencies in monitoring station locations and in line with offsetting efforts, DFO is not convinced that the proposed monitoring program outlined in the Water Quality and Flow Monitoring Plan from May 2017 will adequately support research efforts.	Since the Nunavut Impact Review Board final hearing, DFO has had discussions with the proponent as well as ECCC and INAC regarding the monitoring plan and water quality objectives. ECCC and INAC are working with Agnico Eagle to resolve issues involving the monitoring plans. DFO will rely on the expertise of ECCC and INAC and is satisfied that these issues can be resolved in the authorization phase.
3.5.3: 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.	DFO is concerned about frequency of sampling that will occur throughout operations, closure and post-closure at monitoring stations and requests that a consistent frequency is considered for sampling at all monitoring locations throughout the project to acquire an ample amount of data to inform future monitoring related studies.	
3.5.2: DFO requests that AEM include at least 2 control lake monitoring stations in the Water Quality and Flow Monitoring Plan and include rationale to as to why the reference lakes that are chosen are appropriate.	It is important that appropriate reference lakes are included to adequately compare to data from the monitoring stations in this plan. DFO would be satisfied if a detailed rationale was provided displaying the adequacy of the chosen lakes for the Whale Tail pit project.	In discussions over the course of the hearings, Agnico Eagle has agreed to provide a rationale outlining the appropriateness of the chosen control lakes for the Whale Tail pit project.