



Fisheries and Oceans
Canada

Pêches et Océans
Canada



FISHERIES AND OCEANS CANADA

Final Comment Submission to the

Nunavut Water Board (NWB)

**Agnico Eagle Mines Limited (AEM)
Whale Tail Pit Expansion Project**

Submitted to: Nunavut Water Board
January 23, 2020

DFO File No.: 16-HCAA-00370

NWB File No. 2AM-WTP1826, 2AM-MEA1526, 2BB-MEA1828

Table of Contents

Executive Summary.....	2
1 Introduction	4
2 Relevant Legislation, Mandate and Policy	4
3 Technical Review Comments	6
3.1 Fish Passage	6
3.2 Water Use	8
3.3 Downstream Environment.....	12
4 Summary of Requests	15

Executive Summary

On May 16, 2019, Agnico Eagle Mines Ltd. (AEM) submitted amendment applications and supporting documentation to the Nunavut Water Board (NWB) for a Type “A” Water Licence 2AM-WTP1826, 2AM-MEA1526 and a Type “B” Water Licence 2BB-MEA1828 for the Whale Tail Pit Mine and Haul Road. The Whale Tail Pit Expansion Project is focused on expanding the mining operations of the Whale Tail Pit development, overlapping the physical footprint of the existing Project and extend further onto the Amaruq exploration area. The Expansion Project activities include:

1. Increasing the Whale Tail Pit footprint and extension of operations from a four (4) year development to an eight (8) year development period;
2. Development of the IVR open pit, underground mining of Whale Tail and IVR pits; and
3. Associated on-site mine infrastructure, water management infrastructure, waste rock storage facilities, and haul road and site access.

On June 21, 2019 the new *Fisheries Act* received Royal Assent and became law. The new provisions and stronger protections aim at better supporting the sustainability of Canada’s marine resources for future generations. Sub-section 35 (1) of the *Fisheries Act* states that “No person shall carry on any work, undertaking or activity that results in the harmful alteration, disruption or destruction of fish habitat” (also known as a HADD). However, under Paragraph 35 (2) (b) of the *Fisheries Act*, the Minister of Fisheries, Oceans and the Canadian Coast Guard may issue an authorization with terms and conditions in relation to a proposed work, undertaking or activity that may result in death of fish and/or HADD of fish habitat. The above are subject to the consideration of the factors in Section 34.1 (1) of the *Fisheries Act*.

On behalf of Fisheries and Oceans Canada (DFO), the Fish and Fish Habitat Protection Program (FFHPP) has reviewed the Water Licence amendment applications and associated documents and management plans specific to the Whale Tail Pit Expansion Project. FFHPPs primary focus in reviewing proposed developments in and around fisheries waters is to ensure that works, undertakings and activities are conducted in such a way that the proponents are in compliance with the applicable provisions of the *Fisheries Act*. FFHPP seeks to conserve existing fish habitat and habitat resources, protect them against future impacts, and to restore fish habitat where impacts have occurred.

DFO provides the following Final Comment Submission in response to the Nunavut Water Board’s (NWB)’s correspondence dated November 29, 2019, regarding pre-Hearing Conference Decision and the invitation for Final Comment Submissions. The comments in this submission focus on the need for additional clarifications from AEM regarding AEM’s responses to DFO Technical Comments, in particular: fish passage related to the haul road, water use volumes and water sources, and potential downstream impacts.

Fish Passage

DFO noted that initial information provided during the NIRB process, that construction of the haul road was likely to impede fish passage. DFO acknowledges that AEM has been working with DFO to understand and mitigate impacts to fish and fish habitat, and that AEM has provided updated information as part of both NIRB and NWB review processes. DFO acknowledges AEM's commitment to ensuring fish passage requirements are met, and that discussions regarding fish passage will continue during the permitting stage.

Water use

Accurate and consistent accounting of the water use requirements from source waterbodies for activities during construction, operation and closure is necessary to adequately assess any potential negative impacts to fish and fish habitat, including over-winter fish mortalities. DFO recommends that AEM commit to continue to meet with DFO to discuss rationales for waterbody selection, fish outs and any deviations from standard practices.

Downstream impacts

It is important to quantify changes in water levels to downstream fish and fish habitat to assist with assessment of potential impacts, including the potential for a HADD and the death of fish. DFO previously noted that in the absence of final quantitative assessment(s) of all downstream water level and surface area-related impacts, uncertainty remained regarding the degree of impacts (positive and/or negative) to fish and fish habitat (e.g. changes to access to habitat for juvenile fish, as well as changes to access for predators). DFO acknowledges quantitative predictions for a sub-set of downstream lakes have been provided by AEM, along with explanations intended to assist in addressing the uncertainty. DFO also acknowledges AEM'S commitment to apply mitigation to avoid downstream effects to fish and fish habitat and that monitoring commitments will be included in the Final Offsetting Plan.

1 Introduction

As directed by the NWB in their letter dated November 29, 2019, DFO this submission presents Fisheries and Oceans Canada Fisheries and Fish Habitat Protection Program's (DFO) assessment of Agnico Eagle Mines Ltd.'s (AEMs) "Applications for the amendments to Type "A" Water Licences No. 2AM-WTP1826 and 2AM-MEA1526 and Type "B" Water Licence No. 2BBMEA1828. The purpose of the technical review comments are to provide expert advice to the Nunavut Water Board (NWB) regarding AEM's proposed works, undertakings and activities as they related to impacts to fish and fish habitat, and reflects DFO's mandate.

As noted above, we present a technical analysis of the information provided by AEM. However, the Nunavut Impact Review Board (NIRB)'s review process for AEM's Final Environmental Impact Statement Addendum (FEIS Addendum) for the "Whale Tail Pit Expansion Project" proposal was occurring concurrently with the NWB process. As such, DFO refers to materials submitted as part of both NIRB/NWB processes to inform this NWB Final Comment Submission.

2 Relevant Legislation, Mandate and Policy

The *Constitution Act* (1982) provides the Federal Government with exclusive authority for coastal and inland fisheries within Canada's territorial boundaries. DFO exercises this power through, the administration of the *Fisheries Act* and some aspects of the *Species at Risk Act*. Under the *Fisheries Act* (2019), DFO is responsible for the management, protection and conservation of fish (which include marine mammals as defined by the *Fisheries Act*) and their habitats. The Minister of Fisheries, Oceans and the Canadian Coast Guard is one of the competent ministers under the *Species at Risk Act* (SARA).

2.1 Fisheries Act Amendments 2019

On June 21, 2019 the new *Fisheries Act* received Royal Assent and became law. The new provisions and stronger protections aim at better supporting the sustainability of Canada's marine resources for future generations.

The new Act includes:

1. Provisions modernizing the *Fisheries Act*;
2. Reconciliation with Indigenous peoples;
3. Fish and fish habitat protection provisions:
 - a. Prohibitions against causing the death of fish (other than by fishing) and the harmful alteration, disruption or destruction of fish habitat
 - b. New tools are enabled including ecologically significant areas, as well as measures relating to authorization and permitting of works, undertakings and activities, establishment of standards and codes of practice, creation of fish habitat banks by a proponent of a project, and establishment of a public registry.

- c. Factors that a Minister must consider prior to exercising powers related to authorizations, permits, orders or Ministerial regulations, including cumulative effects and Indigenous knowledge.

Fisheries and Oceans Canada is currently in the process of program revitalization and developing regulations, policies and other program instruments to support the modifications to the *Fisheries Act*.

2.2 Mandate

DFOs mandate is to lead the Government's work to protect and promote our three oceans and our waterways, sustain and rebuild the fisheries, and ensure that they remain healthy for future generations, while providing important economic opportunities to Canadians and coastal communities. On behalf of DFO, the Fish and Fish Habitat Protection Program (FFHPP) is responsible for leading the review of project proposals that are in and/or around fisheries waters, and for ensuring that such proposed works, activities and undertakings are conducted in such a way that the proponents are in compliance with the applicable provisions of the *Fisheries Act*. Sub-section 35 (1) of the *Fisheries Act* states that "No person shall carry on any work, undertaking or activity that results in the harmful alteration, disruption or destruction of fish habitat."

However, under Paragraph 35 (2) (b) of the *Fisheries Act*, the Minister of Fisheries, Oceans and the Canadian Coast Guard may issue an authorization with terms and conditions in relation to a proposed work, undertaking or activity that may result in death of fish and/or harmful alteration, disruption or destruction of fish habitat. The above are subject to the consideration of the factors in Section 34.1 (1) of the *Fisheries Act*:

1. the contribution to the productivity of relevant fisheries by the fish or fish habitat that is likely to be affected;
2. fisheries management objectives;
3. whether there are measures and standards
 - a. to avoid the death of fish or to mitigate the extent of their death or offset their death, or,
 - b. to avoid, mitigate or offset the harmful alteration, disruption or destruction of fish habitat;
4. the cumulative effects of the carrying on of the work, undertaking or activity referred to in a recommendation or an exercise of power, in combination with other works, undertakings or activities that have been or are being carried on, on fish and fish habitat;
5. any fish habitat banks, as defined in section 42.01, that may be affected;
6. whether any measures and standards to offset the harmful alteration, disruption or destruction of fish habitat give priority to the restoration of degraded fish habitat;
7. Indigenous knowledge of the Indigenous peoples of Canada that has been provided to the Minister; and,
8. any other factor that the Minister considers relevant.

2.3 Policies

The FFHPP has developed several policies to promote and assist Canadians and proponents to interpret and be in compliance with the *Fisheries Act*. Two key policies are described below:

1. The “Fish and Fish Habitat Protection Policy Statement” (August, 2019) sets out how the Department interprets the key sections of the *Fisheries Act*, and will apply the regulatory and non-regulatory tools available to support the effective and efficient conservation and protection of fish and fish habitat; and,
2. The “Policy for Applying Measures to Offset Impacts to Fish and Fish Habitat Under the Fisheries Act” (November 2019) provides guidance on undertaking effective measures to offset death of fish and the harmful alteration, disruption or destruction of fish habitat, consistent with the fish and fish habitat protection provisions of Canada’s *Fisheries Act*. The objective of offsetting is to counterbalance the residual effects on fish and fish habitat at a given location, with measurable benefits for fish and fish habitat. For more information, see: https://www.dfo-mpo.gc.ca/pnw-ppe/reviews-revues/policies-politiques-eng.html#_680.

3 Technical Review Comments

3.1 Fish Passage

Review Comment Number	3.1 Fish Passage
Subject/Topic	Potential impacts to fish and fish habitat as a result of widening of haul road
References	<ul style="list-style-type: none"> • DFO-FFHPP Final Presentation Whale Tail Pit Expansion Project, Public Hearing, Baker Lake August 24-27, 2019; submitted to NIRB August 20, 2019 • DFO, 2AM-WTP1826 Technical Review Comments, Whale Tail Pit-Expansion Project; submitted to NWB September 16, 2019 • AEM, 2AM-WTP Technical Comment Responses Whale Tail Pit-Expansion Project; submitted to NWB October 7, 2019 • AEM WSP Whale Tail Haul Road Report; submitted March 26, 2019 • AEM Request for Review: Culvert Extensions for Widening the Access Road for the Whale Tail Expansion Project; submitted to DFO October 31, 2019
Summary	Information AEM has provided includes: minimum/ maximum flows and fish size/swimming velocities that were used to inform the sizing of the proposed culvert upgrades. DFO has acknowledged AEM’s commitments to ensuring fish passage requirements are met and

	<p>that discussions regarding fish passage will continue during the permitting stage.</p> <p>In response to DFO's NWB Technical Comments 2.1.1 and 2.1.2, AEM indicated that the widening of the Haul Road and related extensions to existing culverts will be addressed under a new Request for Review to be submitted to DFO. AEM has indicated that the Request for Review will include updated predictions of hydraulic flows and demonstrate minimal risk to fish passage. DFO notes that AEM has provided the Request for Review for the proposed culvert extensions and widening of the haul road along with estimated velocities for fish passage.</p>
Importance of issue to impact assessment	Ensuring that all watercourse crossings over fish bearing watercourses are designed and constructed such that fish passage is maintained is necessary to avoid and prevent negative impacts to fish and fish habitat.
Detailed Review Comment	DFO acknowledges AEM's submission of information related to fish passage as part of the concurrent NIRB and NWB processes. DFO also notes that AEM has submitted a Request for Review Application for proposed Haul Road, with preliminary review indicating the appendices provided with the Application include information obtained during both NIRB and NWB review processes. DFO appreciates the submission of this information, and will be able to conduct a full review and provide a decision after completion of the NWB process and Project approval. DFO has no further comments.
Recommendation/Request	<p>DFO requests the Proponent:</p> <p>3.1.1 Continue to work with DFO-FFHPP to ensure that all watercourse crossings over fish bearing watercourses are able to adequately enable fish passage.</p>

3.2 Water Use

Review Comment Number	3.2 Water Use
Subject/Topic	Water use volume requirements and source lakes
References	<ul style="list-style-type: none"> • DFO, 2AM-WTP1826 Information Request, Whale Tail Pit-Expansion Project; submitted to NWB July 18, 2019 • AEM 2AM-WTP1826 Information Request Responses, Whale Tail Pit- Expansion Project; submitted to NWB August 1, 2019 • DFO-FFHPPP comments re: Licence No. 2AM-WTP1826, South Whale Tail Diversion Channel and Road 24 design reports; submitted to NWB August 21, 2019 • AEM Responses Whale Tail Diversion Channel and Road 24 design reports; submitted to NWB August 29, 2019 • DFO, 2AM-WTP1826 Technical Review Comments, Whale Tail Pit-Expansion Project; submitted to NWB September 16, 2019 • AEM, 2AM-WTP Technical Comment Responses Whale Tail Pit-Expansion Project; submitted to NWB October 7, 2019 • AEM 2AM-WTP1826 - Technical Meeting Commitment 11/DFO-TC 2.2.3; submitted November 8, 2019 • AEM Drilling Water Withdrawal Table; submitted December 5, 2019 • AEM Appendix 6-M: 2015 Baseline Bathymetry; submitted December 5, 2019
Summary	<p>In Technical Review Comment 2.2.1 DFO requested clarification on how authorized volumes in water licence 2AM-WTP1826 are adequate given updated water withdrawal requirements suggested exceedances. AEM's indicated they expect the conditions of the amended Water Licence will reflect the updated requirements for Nemo Lake (e.g. for camp use), and water sources for operational geological drilling.</p> <p>In Technical Comment 2.2.2, DFO requested clarification on how the under-ice volume of for Nemo Lake was derived. AEM clarified that for calculations of under-ice volumes hydrological statistics were extracted from the elevation-volume table provided in Appendix 6-M, and provided details on assumptions related to calculations.</p> <p>In Technical Comment 2.2.3, DFO requested a consolidated list of waterbodies that will be used as water sources for operational geological drilling (including expected volumes from each waterbody) and clarification regarding which waterbodies will replace a number of lakes as summer water sources for operational drilling. AEM provided clarification that within the Project footprint, waterbodies</p>

	<p>listed as losses within the Conceptual Fish Habitat Offsetting Plan will continue to be used for operational drilling prior to dewatering, and that waterbodies not directly affected by the Project footprint may also be used as sources for operational drilling (e.g, shallow ponds including lake A113, and deep lakes such as Nemo).</p> <p>AEM provided a consolidated table (as requested) by email on November 8, 2019 to address DFO-TC 2.2.3. On November 19, 2019 DFO requested the table be updated to include additional information (e.g., waterbody details, fish status). AEM provided an updated table on December 5, 2019, which in addition to requested changes, included changes to some of the volumes previously provided. For example, in the table provided November 8, 2019, the total Lake Volume for Whale Tail South Basin was 11,832,960m³, with 369,495m³ calculated as the available 10% under-ice volume. Further, the updated table provided December 5, 2019, stated the available Total Lake Volume for Whale Tail South Basin was 16,188,796m³, with under-ice volume available increasing to 788,664m³; a footnote indicated the available under-ice volume assumed 156.75masl.</p> <p>Table 1 provided December 5, 2019, also indicated a number of lakes are to be dewatered, with a footnote indicating that <i>“Within the Project footprint, waterbodies listed as losses (i.e., waterbodies that will be dewatered for mining infrastructure) within the Conceptual Fish Habitat Offsetting Plan (Agnico Eagle 2019c) will be used for operational drilling prior to dewatering of those waterbodies for mining infrastructure or activities”</i> During the AEM-led December 13, 2019 meeting in Montreal regarding review of the updated Offsetting Plan and permitting timelines, AEM acknowledged fish-outs will be required from fish frequented lakes and requested further advice from DFO.</p>
Importance of issue to impact assessment	Accurate and consistent accounting of the water use requirements from source waterbodies for activities during construction, operation and closure is necessary to adequately assess any potential negative impacts to fish and fish habitat, including over-winter fish mortalities.
Detailed Review Comment	1. DFO recognizes that changing the scope of the existing water licences involves the transfer of underground exploration drilling from Water Licence 2BB-MEA1828 to Water Licence 2AM-WTP1826. Calculation of available volumes, monitoring of withdrawal from waterbodies, and accounting of volumes taken among all potential water sources remains important to DFO. During the NWB Technical

Meeting in October, DFO noted that reporting on Condition 3.1 (as required under the existing *Fisheries Act* Authorisation) provided 10% under-ice volume using a calculation (utilising ice thickness and surface area) that differed from the approach utilised by AEM during the NWB process (utilising detailed bathymetry). DFO remains open to continued discussion with AEM on the subject of DFO's current expectations regarding approaches to calculation of available under ice volumes, consistent reporting, and consistency of approaches among projects. Further, DFO is aware that NWT Land and Water Boards in the Mackenzie Valley, along with interested parties, will be discussing the determination of water source capacity in February; DFO will be participating in this discussion.

2. DFOs Information Requests and Technical Comments have asked for clarification on calculations. DFO provides a new example to illustrate how significant changes in values, without a clear explanation of why and how changes were made, leads to the need for clarifications. When comparing the table provided by AEM on November 8, 2019, to the updated Table 1 provided December 5, 2019, the available under-ice volume for Whale Tail South Basin increases by more than 100% (369,495m³ to 788,664m³). Given the changes in Table 1 did not come with a clear explanation of why volumes for Whale Tail Lake South Basin were re-calculated (e.g. potentially new information regarding operational requirements was obtained, QA/QC noted calculation errors, etc.), DFO is unclear why available volume changed by more than 100 % and why 156.75masl was selected or why differing values can be found within AEMs submissions (e.g., Appendix 6-M provides a maximum of 153.0masl for Whale Tail Lake). Similarly, in Technical Comment 2.3, DFO noted the South Whale Tail Diversion Channel and Road 24 design report submitted to NWB for the first time mentioned a maximum of 157masl for the South Whale Tail Basin; this deviated from the previously stated maximum of 156masl with no clear explanation why.

3. AEM lists a number of the waterbodies that are "to be dewatered" as required under the proposed Expansion Project. DFO notes that in Table 1, provided in response to DFO TC 2.2.3, the maximum annual drilling withdrawal falls under the calculated 10% under ice volume threshold in many cases. However, for some waterbodies for which total lake volume is unavailable (i.e., many of the waterbodies designated "to be dewatered"), water withdrawal volumes fall close to the available under-ice volume, and in a few cases surpass the available volume. During the December 12 Meadowbank Fisheries

	<p>Research Advisory Group meeting (MFRAG; as required under Condition 4.2.1.4 of the existing <i>Fisheries Act</i> Authorisation for the approved Whale Tail Project) held in Montreal, the importance of collecting information on northern aquatic ecosystems was highlighted. Discussion related to the research under existing Authorisation noted the need to address the information gaps. Further discussion suggested information that can be obtained via fish-outs provides opportunity to support ongoing research and fill information gaps. DFO recognises the importance of consistent methodology and clear communication regarding data expectations and operational planning. DFO will continue discussions with AEM regarding the fish-out methodology and data requirements, notably given the benefits to increasing knowledge of northern aquatic ecosystems.</p>
Recommendation/Request	<p>DFO requests the Proponent:</p> <p>3.2.1 Commit to meeting with DFO prior to water withdrawals to discuss expectations regarding under ice volume calculations, monitoring of withdrawals, and communication prior to and reporting as part of <i>Fisheries Act</i> Authorisations.</p> <p>3.2.2 For Whale Tail Lake South Basin information provided Dec 5 in Table 1: a) Provide the rationale for the recalculation of South Whale Tail Lake Basin total lake volume and available under-ice volume; b) provided calculations details; and c) clarify why 156.75masl was selected.</p> <p>3.2.3. Commit to meeting with DFO to discuss requirements related to fish outs, including collection of data to support research (e.g. conducted under the existing <i>Fisheries Act</i> Authorisation for the approved project, as well as future initiatives)</p>

3.3 Downstream Environment

Review Comment Number	3.3 Downstream Environment
Subject/Topic	Quantification / accounting of all potential downstream impacts
References	<ul style="list-style-type: none"> • DFO, 2AM-WTP1826 Technical Review Comments, Whale Tail Pit-Expansion Project; submitted to NWB September 16, 2019 • AEM, 2AM-WTP Technical Comment Responses Whale Tail Pit-Expansion Project; submitted to NWB October 7, 2019 • AEM Technical Memorandum: Whale Tail Expansion Project: Response to Technical Comment DFO 3.4 Addendum; submitted December 4, 2019 • AEM Technical Memorandum: Whale Tail Expansion Project: Response to Technical Comment DFO 3.4; submitted October 24, 2019 • AEM Summary of Commitments for the Whale Tail Expansion Project – NWB review Process; submitted to NWB November 8, 2019
Summary	<p>In DFO Technical Comment 2.3, DFO acknowledged AEM's commitments to providing information on downstream impacts. DFO also re-iterated that accounting of all potential downstream impacts to fish and fish habitat resulting from upstream changes are important in assessing impacts. DFO noted that in the absence of final quantitative assessment(s) of all downstream water level and surface area-related impacts, uncertainty regarding the degree of impacts (positive and/or negative) to fish and fish habitat remains (e.g. changes to access to habitat for juvenile fish, as well as changes to access for predators).</p> <p>AEMs response to DFO TC2.3 stated that revised predictions of downstream changes to fish habitat will be provided with the Fish Habitat Offsetting Plan as part of the <i>Fisheries Act</i> Authorization application. AEMs response to KivIA-WL-TC -11 further clarified that quantitative assessment of impacts to all waterbodies associated with the discharge scenario to D1 and D5 be completed and included in the Water Management Plan following amendment of the Water Licence.</p> <p>On October 24, 2019 AEM provided a Technical Memo in response to NIRB DFO TC 3.4. On November 19, 2019, DFO requested that the additional text be included in the Final Offsetting plan, specifically:</p>

	<ul style="list-style-type: none"> • How predictions in hydrology will be monitored for the representative lakes, and lakes further downstream associated with Nodes 1 and 2; and, • How changes in water volume/surface area for lakes further downstream of the representative lakes are expected to fall within natural variation. <p>AEM submitted an updated Addendum to the Technical Memo DFO TC 3.4 on December 4, 2019, providing quantitative information on the changes to water levels and surface area to downstream waterbodies. AEM also stated that they are committed to apply mitigation to avoid downstream effects to fish and fish habitat and that monitoring commitments will be included in the Final Offsetting Plan.</p>
Importance of issue to impact assessment	It is important to quantify changes in water levels to downstream fish and fish habitat to assist with assessment of potential impacts.
Detailed Review Comment	<p>AEM indicated that the baseline characterization of the hydrology of Project lakes was completed using the hydrological model developed for the Approved Project and available bathymetry data available for waterbodies A16, A15, A12 and A76. DFO recognizes that AEM provided quantitative information on the changes to water levels and surface area to downstream waterbodies. However, a DFO re-calculation of a sub-set of the information provided suggests some discrepancies within median volume, median lake depth, and mean maximum decreases in water levels. DFO also notes that “median” and “average” values are compared to each other, although they are often very different in absolute value and convey different information.</p> <p>AEM stated in the addendum to Technical Memo in response to DFO TC 3.4, that effects sizes for surface area and volume for all lakes remain well below the 10% criteria through the summer months and suggest a low probability of residual impacts to downstream ecosystems as conditions were within average or below average flow conditions. AEM also states that refilling activities during the closure period are expected to have a low probability of detectable residual impacts on the downstream environment. DFO appreciates AEM’s analyses indicate that predicted outcomes will fall within natural variation. However, adequate monitoring is key to verifying predictions that impacts will fall within natural variation. In the updated Technical Memo of December 4, it states: <i>Monitoring of water levels in Lake A16 (Mammoth lake) and if required, Lakes A12, A15 and A76 during closure is expected to provide a reasonable</i></p>

	<p><i>surrogate for detecting changes in surface areas and volumes during that time , and will be conducted to verify predictions provided in this memo and the environmental assessment” (emphasis added).</i> It is unclear to DFO why sampling or monitoring of A12, A15 and A76 is not considered.</p> <p>Building on the concept of monitoring downstream impacts, DFO notes that in their November 2019 email information request the additional query stated: <i>“where can information related to the natural variation in volume / surface area for lakes listed in DFO TC 3.4.7 (other than the reference lakes provided in the Technical Memo) be located?”</i> DFO understands that bathymetric information is available for lakes A16, A15 A12 and A76, however AEM has not yet made that information available.</p> <p>DFO acknowledges AEM’S commitment to apply mitigation to avoid downstream effects to fish and fish habitat and that monitoring commitments will be included in the Final Offsetting Plan. DFO notes that the existing Authorisation was under the previous <i>Fisheries Act</i>, and that the new <i>Fisheries Act</i> (2019) comes with new guidance, including Fish and Fish Habitat Policy Statement (August 2019) and Policy for Applying Measures to Offset Adverse Effects to Fish and Fish Habitat under the Fisheries Ac (November 2019). DFO also notes that Consultation requirements have also been updated in the <i>Fisheries Act</i> (2019) and DFO is open to support discussions indicated under Commitment #21: <i>“Agnico Eagle to include the Kivalliq Inuit Association in discussions related to the Fisheries Act Authorization approval process.”</i></p>
Recommendation/Request	<p>DFO requests the Proponent:</p> <p>3.3.1 Clarify that information provided in December 4, 2019 Technical Memo Addendum in Response to Technical Comment DFO 3.4 Addendum. will be also included in the Final Offsetting Plan.</p> <p>3.3.2 Clarify why median values have been selected (vs. means with error estimates).</p> <p>3.3.3 Clarify why monitoring of waterbodies A12, A15 and A76 is not required to verify predictions. From an adaptive management perspective, clarify why monitoring for lakes further downstream of A76 to Nodes 1 and 2 is not required.</p>

	<p>3.3.4 Provide examples of what approaches to monitoring are to be included in the Final Offsetting Plan with regards to verifying predictions in downstream percent changes in water levels, surface area and volumes.</p> <p>3.3.5 Clarify where information on the natural variation in surface area/ volume from lakes listed in 3.4.7 other than A16, A15 A12 and A67, can be located.</p>
--	---

4 Summary of Requests

Technical Review: 2.1 Fish Passage
<p>3.1.1 Continue to work with DFO-FFHPP to ensure that all watercourse crossings over fish bearing watercourses are able to adequately enable fish passage.</p>
Technical Review: 2.2 Water Use
<p>3.2.1 Commit to meeting with DFO prior to water withdrawals to discuss expectations regarding under ice volume calculations, monitoring of withdrawals, and communication prior to and reporting as part of <i>Fisheries Act</i> Authorisations.</p> <p>3.2.2 For Whale Tail Lake South Basin information provided Dec5 in Table 1: a) Provide the rationale for the recalculation of South Whale Tail Lake Basin total lake volume and available under-ice volume; b) provided calculations details; and, c) clarify why 156.75masl was selected.</p> <p>3.2.3. Commit to meeting with DFO to discuss requirements related to fish outs, including collection of data to support research (e.g. conducted under the existing <i>Fisheries Act</i> Authorisation for the approved project, as well as future initiatives).</p>

Technical Review: 2.3 Downstream Environment**3.3.1**

Clarify that information provided in December 4, 2019 Technical Memo Addendum in Response to Technical Comment DFO 3.4 Addendum. will be also included in the Final Offsetting Plan

3.3.2

Clarify why median values have been selected (vs. means with error estimates).

3.3.3

Clarify why monitoring of waterbodies A12, A15 and A76 is not required to verify predictions. From an adaptive management perspective, clarify why monitoring for lakes further downstream of A76 to Nodes 1 and 2 is not required.

3.3.4

Provide examples of what approaches to monitoring are to be included in the Final Offsetting Plan with regards to verifying predictions in downstream percent changes in water levels, surface area and volumes.

3.3.5

Clarify where information on the natural variation in surface area/ volume from lakes listed in 3.4.7 other than A16, A15 A12 and A67, can be located.