Fisheries and Oceans Canada
Pêches et Océans Canada

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Fish and Fish Habitat Protection Program
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Région de l'Arctique
Programme de protection du poisson et de son habitat
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Your file *Votre référence*
2AM- MEL1631

Our file *Notre référence*
11-HCAA-CA7-00014,
24-HCAA-01238, 25-HCAA-00583

October 6, 2026

Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU
X0B 1J0

Subject: Fisheries and Oceans Canada's Technical Comments for the Agnico Eagle Mines Limited Meliadine Project Type A Water Licence No. 2AM-MEL1631 Amendment Application

Dear Richard Dwyer,

The Fish and Fish Habitat Protection Program of Fisheries and Oceans Canada (DFO) received the notice and request by the Nunavut Water Board dated June 4, 2026, regarding the Agnico Eagle Mines Limited Application to Amend the Type A Water Licence No: 2AM-MEL1631 for the Meliadine Gold Project. In accordance with its mandate, i.e. the management, protection and conservation of fish and their habitats, DFO has conducted a technical review of the Application and provides three Technical Review Comments related to the potential impacts of water withdrawal from Meliadine Lake on fish and fish habitat.

If you have any questions, please contact Derek Donald at 403-827-6781, or by email at Derek.Donald@dfo-mpo.gc.ca. Please refer to the file number referenced above.

Sincerely,

LeclercBeaulieu, Tatiana

Digitally signed by LeclercBeaulieu, Tatiana
Date: 2026.10.06 15:53:51 -06'00'

Tatiana Leclerc-Beaulieu
A/ Team Lead
Fish and Fish Habitat Protection Program
Fisheries and Oceans Canada

1. DFO Mandate, Relevant Legislation and Policy

Fisheries and Oceans Canada's Fish and Fish Habitat Protection Program (DFO) is dedicated to conserving, protecting and restoring fish and fish habitat for future generations in a way that respects Indigenous rights and supports sustainable development. This contributes to the broader DFO mandate of ensuring that Canada's oceans and other aquatic ecosystems are protected from negative impacts to ensure healthy biodiversity, prevent the spread of invasive species, protect species at risk and promote sustainable fisheries. FFHPP protects and conserves fish and fish habitat by administering and promoting compliance with the *Fisheries Act*, the *Species at Risk Act*, and associated regulations, including:

a. the fish and fish habitat protection provisions of the *Fisheries Act*;
b. the *Species at Risk Act*, including prohibitions against:
    i. killing, harming, harassing, capturing, or taking listed aquatic species at risk;
    ii. damaging or destroying their residences; and
    iii. destroying their critical habitat; and
c. the *Aquatic Invasive Species Regulations*, including prohibitions on the introduction and spread of aquatic invasive species.

2. Comments

Review Comment #	**DFO-TRC-01**
Subject / Topic	Hydrology Modelling – Downstream Impacts
References	• Meliadine WL Amendment – Operational Update – Main Application Document • Appendix 4-D - Agnico Melia dine Mine – Meliadine Lake Hydrology Modelling • DFO. 2013. Framework for Assessing the Ecological Flow Requirements to Support Fisheries in Canada. DFO Can. Sci. Advis. Sec. Sci. Advis. Rep. 2013/017. • Golder. 2014. Final Environmental Impact Statement (FEIS) – Meliadine Gold Project. Volume 7.0 Freshwater Environment.
Comment	DFO's *Framework for Assessing the Ecological Flow Requirements to Support Fisheries in Canada (2013)*, outlines that riverine ecosystems are placed at risk when natural flow regimes are altered, with flow alterations <10% of the instantaneous flow in the river relative to a "natural flow regime" having a low probability of detectable impacts to fish habitat. Additionally, cumulative flow alterations that result in instantaneous flows <30% of the mean annual discharge (MAD) have a heightened risk of impacts to fish habitat. In order to assess the impacts of flow alteration on fisheries, it is recommended that a minimum of 20 years of river flow data be used to establish the "natural flow regime" or baseline conditions. The Proponent is permitted to withdraw from Meliadine Lake up to 1,110,296 m^3/yr during operations and up to 8,676,481 m^3/yr for closure. DFO notes there has been little information provided thus far on the downstream impacts to flow regimes in both

	the Meliadine River and the Diane River, and how this will impact fish and fish habitat in these systems. This concern was raised during the 2024 Water Licence Amendment process, but has yet to be resolved. DFO expects Proponents to provide information following recommended guidance, as described in DFO's *Framework for Assessing the Ecological Flow Requirements to Support Fisheries in Canada* (2013), in order to assess if the project works, undertakings, or activities will result in impacts to fish and fish habitat. Should the Proponent be unable to complete the works in accordance with the above guidance and thresholds, DFO recommends the Proponent submit the project through DFO's regulatory review process.
Request	DFO recommends the Proponent provide modeled flow rates (m^3/s) for the Meliadine River and Diane River, that conform to DFO's *Framework for Assessing the Ecological Flow Requirements to Support Fisheries in Canada* (2013) and includes the following: • modeled flows under operational water use volumes; • modeled flows under closure water use volumes; • comparison of modeled flows with 10% instantaneous flow; • comparison of modeled flows with 30% MAD; • open water and under-Ice discharge rating curves for both outlets; and • a minimum of 20 years of river flow data (if available) to establish the "natural flow regime", for baseline comparison.

Review Comment #	**DFO-TRC-02**
Subject / Topic	Hydrology Modelling – Winter/Under-ice Considerations
References	• Meliadine WL Amendment – Operational Update – Main Application Document • Appendix 4-D - Agnico Meliadine Mine – Meliadine Lake Hydrology Modelling • DFO. 2010. DFO Protocol for Winter Water Withdrawal from Ice-covered Waterbodies in the Northwest Territories and Nunavut, 2010.
Comment	Large amounts of water withdrawn from ice-covered waterbodies can impact fish and fish habitat through oxygen depletion, loss of over-wintering habitat and/or reductions in littoral habitat. As such, DFO has developed a protocol for *Winter Water Withdrawal from Ice-covered Waterbodies in the Northwest Territories and Nunavut* (2010), which outlines that "*total water withdrawal from a single waterbody is not to exceed 10% of the available water volume calculated using the appropriate maximum expected ice thickness*." Currently, the Proponent's submission provides modeling on the projected inflow and lake levels for the future mine operations period, but does not provide the total withdrawal volumes compared to the volume of Meliadine Lake during ice-cover conditions. Therefore, DFO is currently unable to assess the withdrawal volumes with respect to guidance for water withdrawal from ice-covered waterbodies (i.e., exceedance of the 10% under ice threshold).

Review Comment #	DFO-TRC-02
Request	DFO recommends the Proponent provide information about water withdrawal volumes relative to total lake volume for the under-ice time period. This information should conform to the *DFO Protocol for Winter Water Withdrawal from Ice-covered Waterbodies in the Northwest Territories and Nunavut* (2010), including the percentage of the available water volume calculated using the appropriate maximum expected ice thickness for Meliadine Lake.

Review Comment #	DFO-TRC-03
Subject / Topic	Hydrology Monitoring Plan
References	• Appendix 4-D - Agnico Meliadine Mine – Meliadine Lake Hydrology Modelling • Appendix 5-A - Aquatic Effects Monitoring Program, Design Plan (Version 4)
Comment	The Proponent has not provided a hydrology monitoring plan for assessing effects of water withdrawal on the receiving environment (i.e. Meliadine Lake water levels, and Meliadine River and Diane River discharge rates). This information is necessary for DFO to assess how data is being collected for hydrological modeling and for the development of the discharge rating curve. Similarly, it is needed to understand how flows in Meliadine River and Diane River, and water levels in Meliadine Lake, are being assessed by the Project. This type of information (i.e. data collected to assess effects on the aquatic receiving environment) is typically included within an AEMP for other water withdrawal projects in the Arctic. Additionally, other similar water withdrawal monitoring protocols include the installation of a continuous monitoring station on the source waterbody to ensure water withdrawal does not exceed that which is permitted.
Request	DFO recommends that the Proponent develop a hydrology monitoring plan that includes: • details of the hydrology monitoring that was used to collect data for the Meliadine Lake Hydrology Model; and • details on future monitoring throughout operation and closure. This plan should include: • how, when, and where data is collected; • considerations of summer and winter conditions; • information on how data will be collected to ensure that the project conforms to the *DFO Protocol for Winter Water Withdrawal from Ice-covered Waterbodies in the Northwest Territories and Nunavut* (2010) and *DFO's Framework for Assessing the Ecological Flow Requirements to Support Fisheries in Canada (2013)*, in order to remain compliant with the *Fisheries Act;* and • listed contingency measures should monitoring indicate impacts are exceeding that which is permitted (i.e., slowing or stopping withdrawal).

Review Comment #	DFO-TRC-04
Subject / Topic	Closure Impacts – Pit Back-flooding
References	• Appendix 4-D - Agnico Meliadine Mine – Meliadine Lake Hydrology Modelling • Appendix 5-I - Interim Closure and Reclamation Plan – Update 2026
Comment	DFO acknowledges that water withdrawals from Meliadine Lake for pit back-flooding will occur during the open-water season and that the schedule remains flexible. In order to assess the potential impacts to fish and fish habitat during closure, DFO will require further information. However, any outstanding information associated with the closure withdrawal can be submitted during DFO's regulatory review process.
Request	Prior to pit back-flooding, it is recommended that the Proponent consult with DFO regarding the need for a Fisheries Act Authorization.