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August 19, 2026

Your file *Votre référence*
2AM-MEL1631

Ali Shaikh
Nunavut Water Board
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Subject: Follow-up Comments to Agnico Eagle Response to Comments to 2AM-MEL1631 Water Licence Amendment – Operational Update – Information Requests / Completeness Check

Dear Ali Shaikh,

The Fish and Fish Habitat Protection Program of Fisheries and Oceans Canada (DFO) received on August 7, 2026, your request to confirm whether concerns have been addressed in relation to the information provided and completeness of the Amendment Application for the Meliadine Mine Type A Water License No: 2AM-MEL1631.

DFO has reviewed Agnico Eagle Mines Limited's response to comments, and confirms that concerns were addressed for the following comment:

- DFO-IR-06
- DFO-IR-07

While comments DFO-IR-01 through DFO-IR-05 warranted follow-up. As described below in detail, DFO will require hydrological monitoring and modelling for the following to assess potential impacts on fish and fish habitat:

- Meliadine Lake water levels (compared to baseline conditions)
- Meliadine River Discharges
- Diane River Discharges

In addition, the modeling of project related impacts should consider the following:

- Comparison to baseline conditions.

- Assessment of under ice water withdrawal following DFO's Protocol of Winter Water Withdrawal from Ice-covered Waterbodies in the Northwest Territories and Nunavut (2010).
- Assessment of impacts compared to guidance provided in DFO. 2013. Framework for Assessing the Ecological Flow Requirements to Support Fisheries in Canada. DFO Can. Sci. Advis. Sec. Sci. Advis. Rep. 2013/017.

Review Comment #	DFO-IR-01
Subject / Topic	Hydrology Modeling - Baseline Considerations
References	• Meliadine WL Amendment – Operational Update – Main Application Document • Appendix 4-D - Agnico Meliadine Mine – Meliadine Lake Hydrology Modelling
Comment / Request	DFO requests that the Applicant provide hydrology modeling under different climate scenarios, that compares baseline conditions (i.e. no Project water use or inputs) to: 1. current operational Water Licence approved water use (1,100,296 m³/yr); 2. proposed operational Water Licence approved water use (1,112,296 m³/yr); and 3. closure Water Licence approved water use (8,676,481 m³/yr). The application includes a hydrology model for Meliadine Lake water levels, that compares maximum freshwater withdrawal (1,110,296 m³/yr) to current water withdrawal (519,502 m³/yr) for the operational period (2026-2036), but not to baseline conditions (i.e. no water use scenario). Similarly, the model does not compare closure period water use (2037-2043) to baseline (no water use) conditions. The lack of baseline comparison prevents the proper assessment of the impacts of Project water use and the proposed increase in water use, on fish and fish habitat.
AEM Response	Agnico Eagle will consider evaluations of maximum freshwater withdrawals during the Operation and Closure phases of the project. Updated lake level modelling provided in Appendix 4-D indicates no meaningful change in Meliadine Lake levels under the proposed maximum freshwater withdrawal scenario of 1,110,296 m³/year, which represents less than 0.5% of the lake's average annual inflow. The effect of the proposed increase in maximum annual freshwater withdrawal is therefore negligible, with the average annual water level change during Operations estimated at approximately 1 cm. In addition, as per Agnico Eagle's response to Technical Comment DFO-TRC-02 during the 2024 Water Licence Amendment (Agnico Eagle 2024), Meliadine Lake levels were modelled in the 2014 FEIS. The annual withdrawal volume from Meliadine Lake for pit filling as set in the 2014 FEIS was 17,060,000 m³/year, no concerns to fish and fish habitat were identified at that time. In comparison, the withdrawal volume proposed during Closure in the Operational Update is substantially smaller at 8,676,481 m³/yr. Impacts to fish and fish habitat are anticipated to be less than those previously assessed in 2014 for which offsetting was not required. Reference:

Review Comment #	DFO-IR-01
	Agnico Eagle. 2024. Re: Agnico Eagle's Response to Technical Comments on the Meliadine Water Licence Amendment Application 2AM-MEL1631. Submitted to Nunavut Water Board. May 10, 2024.
Follow-up Comment	The response provided by the Applicant does not address the lack of baseline comparison. As such, DFO retains its position that the application is lacking information to determine project related impacts on natural lake levels and discharge rates in the Meliadine River and Diane River. Comparing project activities to baseline conditions is required to assess impacts associated with the proposed water withdrawal. It is DFO's understanding that the Applicant only began hydrological monitoring in 2024. DFO requests the Applicant provide any data available (lake level or river discharges) that predates operational water withdrawal (i.e., conditions prior to mine related impacts) to represent baseline conditions. DFO requests that the Applicant provide a link to the 2014 FEIS referenced and include a section or page number where information pertaining to DFO-IR-01 can be found.

Review Comment #	DFO-IR-02
Subject / Topic	Hydrology Modeling – Winter/Under-ice Considerations
References	- Meliadine WL Amendment – Operational Update – Main Application Document - Appendix 4-D - Agnico Meliadine Mine – Meliadine Lake Hydrology Modelling
Comment / Request	DFO requests that the Applicant provide hydrology modeling for the winter period in addition to the summer period. This should include ice formation as a factor influencing water volumes, how the timing of open water may be impacted, and how associated outflows in Meliadine River and Diane River may be impacted. In the arctic, ice formation in winter can lock up a substantial amount of water and can significantly impact river flows and water movement. As such, understanding impacts on water use under winter conditions can be of vital importance for fish and fish habitat. The Meliadine Lake Hydrology Model considers only summer (ice-free) conditions when quantifying future water availability and notes that ice cover in winter may be explaining some of the anomalies seen in the model results, highlighting the impacts of ice formation on water quantity during winter. Without a detailed understanding of hydrological flows in winter conditions, DFO is unable to assess the impacts of the Project's water use on fish and fish habitat during the ice-covered season.
AEM Response	Agnico Eagle started hydrological data collection in 2024, including water levels and flows at both outlets of Meliadine Lake. This forms part of a multi-year monitoring

Review Comment #	DFO-IR-02
	program beginning in 2024 with results to be provided in the 2026 Annual Report. This data collection effort, combined with Water Survey of Canada hydrometric records and watershed modelling, is intended to generate the data required to support a comprehensive understanding of the Meliadine Lake water balance across seasonal conditions.
Follow-up Comment	The response provided by the Applicant does not address the need for monitoring and modeling specifically under winter conditions. Under ice monitoring and modelling is required to confirm adherence to DFO's Protocol of 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). DFO retains its position that data collection and modeling of under-ice conditions is required to review projects impacts to fish and fish habitat for a large portion of the year.

Review Comment #	DFO-IR-03
Subject / Topic	Hydrology Modeling – Downstream Effects
References	• Meliadine WL Amendment – Operational Update – Main Application Document • Appendix 4-D - Agnico Meliadine Mine – Meliadine Lake Hydrology Modelling
Comment / Request	DFO requests that the Applicant provide modeled outflows for the Meliadine River and Diane River, in addition to the modeled water levels in Meliadine Lake that were included with this application. The modeling and assessment of Meliadine River and Diane River should include analysis and discussion related to maintaining instantaneous flow alteration below 10% and mean annual discharge alteration below 30%, in the Meliadine River and Diane River, under different water use and climate scenarios. The importance of these thresholds is included in the following: • DFO. 2013. Framework for Assessing the Ecological Flow Requirements to Support Fisheries in Canada. DFO Can. Sci. Advis. Sec. Sci. Advis. Rep. 2013/017. In addition, the inclusion of a cross section of the outflows can be important in understanding fish passage capabilities to and from Meliadine Lake at different water levels. Maintaining the environmental flow needs in these rivers is vital to the long-term viability of fish habitat and fish use of these systems. Both Meliadine and Diane River are important for Arctic char migration, and maintaining their use is critical to local char populations. A model that accurately predicts the hydrological impacts of water use on

	these systems is necessary for DFO to assess and understand potential downstream impacts on fish and fish habitat.
AEM Response	Agnico Eagle will consider additional analysis and discussion related to lake volume, lake level, and flows for the Operation and Closure phases to evaluate the effects of proposed water use on fish and fish habitat (including Arctic Char). See response to DFO-IR-02 for more details on multi-year hydrology studies being conducted on Meliadine Lake outflows. See response to DFO-IR-01 for comment on potential effects to Meliadine Lake levels as assessed in the 2014 FEIS.
Follow-up Comment	The response provided by the Applicant does not address the need for downstream modeling. DFO retains its position that modeling downstream effects is required to review project related impacts to fish and fish habitat. DFO reiterates its request that the Applicant assess downstream impacts in the Meliadine and Diane Rivers using the thresholds and guidance provided in DFO's Framework for Assessing the Ecological Flow Requirements to Support Fisheries in Canada (2013).

Review Comment #	DFO-TRC-04
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 / Request	DFO requests that the Applicant provide 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; and - Justification on how the plan is suitable for assessing the impacts of the Project's water use on fish and fish habitat in Meliadine Lake, Meliadine River, and Diane River. To date, the Project 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). The information being requested 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. As this type of information (i.e. data collected to assess effects on the aquatic receiving environment) is typically included within an AEMP, it would be logical and prevent future confusion, if the hydrology monitoring were incorporate into the Project's AEMP.

	This would provide a reliable location for reviewing the design plan and monitoring results.
AEM Response	Agnico Eagle does not agree that a hydrology monitoring plan is required. During the 2024 Water Licence Amendment process, Agnico Eagle committed to a 3-year hydrologic monitoring program for Meliadine Lake, spanning from 2024 until 2026. The final results of the monitoring program will be reported in the 2026 Annual Report.
Follow-up Comment	DFO retains its position that the project requires a hydrological monitoring plan to reliably record and report project related impacts to lake levels and discharge in the Meliadine River and Diane River, particularly during closure when proposed water use significantly increases. Results from the 3-year hydrologic monitoring program for Meliadine Lake may partially inform reviewers of these impacts, but currently there is no information detailing the methods of monitoring in the 3-year plan to determine if it is sufficient for DFO's assessment. The information provided to date is not sufficient to properly assess project related impacts as describe in comments 1-3.

Review Comment #	DFO-IR-05
Subject / Topic	Response Framework / Action Levels for Water Quantity
References	- Appendix 4-D - Agnico Meliadine Mine – Meliadine Lake Hydrology Modelling - Aquatic Effects Monitoring Program, Design Plan (Version 4)
Comment / Request	DFO requests that the applicant provide a conceptual response framework that includes discussion of action levels for water quantity parameters such as flow rates and timing of the open water season for Meliadine River and Diane River. A response framework that includes action levels is necessary for DFO to evaluate the Project's mitigation of risk associated with water use on fish and fish habitat.
AEM Response	Updated lake level modelling provided in Appendix 4-D indicates no meaningful change in Meliadine Lake levels under the proposed maximum freshwater withdrawal scenario of 1,110,296 m³/year, which represents less than 0.5% of the lake's average annual inflow. The effect of the proposed increase in maximum annual freshwater withdrawal is therefore negligible, with the average annual water level change during Operations estimated at approximately 1 cm. No delay to the open water season for the Meliadine and Diane rivers due to increased water withdrawals from the operations is expected. Based on negligible changes to water levels at the maximum water withdrawal rate, the need for a water quantity response framework is not warranted at this time as a change in water level of 1 cm would not be distinguishable from natural variability (i.e., climate driven factors such as precipitation, snow melt, evaporation, runoff in any given year).
Follow-up Comment	As described above, project related impacts on key variables effecting fish and fish habitat (lake level compared to natural conditions and river discharge rates) are

	unknown. Should the Applicant provide the modelling requested in DFO IR 01-04, this information will assist DFO in determining if a response framework is required. DFO requests the Applicant provide further information supporting the conclusion that “no delay to the open water season for the Meliadine and Diane rivers due to increased water withdrawals from the Operations is expected”.
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Review Comment #	DFO-IR-06
Subject / Topic	Mine Closure 2037-2043; Pit Back-flooding Plan
References	• Appendix 4-D - Agnico Meliadine Mine – Meliadine Lake Hydrology Modelling • Interim Closure and Reclamation Plan – Update 2026
Comment / Request	DFO requests that the applicant provide a conceptual plan for the back-flooding of pits as described in the Interim Closure and Reclamation Plan, including proposed flooding rate, duration of flooding, time of year, etc. This back-flooding Plan should include a discussion of potential downstream impacts to fish and fish habitat, as well as a response framework and action levels, as described in DFO-IR-05. This information is necessary to understand the potential impacts on fish and fish habitat from water withdrawal activity required for the back-flooding of the pit during closure when significantly more water use is required. This activity constitutes a significant volume of water use from Meliadine Lake with potential to impact flows in the Meliadine River and Diane River and poses a high risk to the viability of Arctic char movement through these rivers. As such, it is important to plan well in advance and establish reliable mitigation measures and response framework procedures.
AEM Response	This was provided in the Water Balance Water Quality Model – Technical Report (Appendix 4-C, Section 5.5), extracted below: (Figure not included in this letter) Water withdrawals from Meliadine Lake for pit back-flooding are anticipated to occur during the open-water season (approximately June 15 to September 30). The active closure pumping schedule remains flexible and will be managed to control withdrawal rates and minimize effects on Meliadine Lake. Also stated in Section 5.5 of Appendix 4-C, withdrawal of water from Meliadine Lake to flood the pits is predicted to result in minimal changes to the lake volume or minimum water levels (see figure below extracted from Appendix 4-C). The withdrawal of water from Meliadine Lake to flood the pits, along with no treated effluent discharge to Meliadine Lake during the Active Closure phase is predicted to result in minimal changes to the lake volume or minimum water levels. The minimum annual lake volume drops by 0.4% on average between the Operations phase and Active Closure, and minimum annual water levels are predicted to drop by an average of 2 cm (Figure 5-21). (Figure not included in this letter)

Follow-up Comment	DFO appreciates the Applicant providing this information as it resolves DFO's current concerns surrounding back-flooding. DFO notes that the Applicant states they plan to flood only during the open water season. However, should this plan change and include overwinter water withdrawal, DFO will require further under-ice modelling in an updated version of the Interim Closure and Reclamation Plan.
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Sincerely,



José Audet-Lecouffe

A/ Team Lead

Fish and Fish Habitat Protection Program

Fisheries and Oceans Canada

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cc: Derek Donald – DFO
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