



Fisheries and Oceans  
Canada

Pêches et Océans  
Canada

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Fish and Fish Habitat Protection Program  
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August 8, 2024

*Your file    Votre référence*

2AM-MEL1631

*Our file        Notre référence*

11-HCAA-CA7-00014

Nunavut Water Board  
Attn: Richard Dwyer  
Manager of Licensing  
PO Box 119  
Gjoa Haven, NU  
X0B 1J0

Via email to: richard.dwyer@nwb-oen.ca

**Subject:    Comment Request for Agnico Eagle Mines Limited's Response to  
Comments, Meliadine Gold Mine Project 2023 Annual Report**

Dear Richard Dwyer,

The Fish and Fish Habitat Protection Program (the Program) of Fisheries and Oceans Canada (DFO) received your request on July 16, 2024, to confirm if the response to the Annual Report comments provided by the proponent addressed parties comments. DFO has reviewed the responses provided in regards to its mandate, i.e. the management, protection and conservation of fish and their habitats and has the following comments to provide at this time.

<b>Comment Number:</b>	DFO-1
<b>Subject/Topic:</b>	Culverts
<b>References:</b>	Appendix 6: Annual Geotechnical Inspection Report, Sec 15 & 16; Appendix 7; Appendix 8; Appendix 28-7 Roads Management Plan; and Appendix 28-9 Water Management Plan
<b>Comment:</b>	<p>Gap/Issue: Some culverts on the AWAR and Rankin Inlet Bypass Road are undersized for flow and more than half of the culverts inspected show signs of erosion. The roads (AWAR and Rankin Inlet Bypass Road) are blocking flow causing ponding of water at identified locations.</p> <p>The Annual report identifies for work in 2024, Culverts 7 and 10 along the AWAR and Culvert 11 along the Rankin Inlet Bypass Road as requiring replacement to ensure fish passage and one additional location along the AWAR (near KM 15) requiring further fish habitat assessment. As work is ongoing and planned for 2024, DFO notes the</p>

	importance of maintain fish passage through these watercourses and looks forward to reviewing this work when it is completed.
<b>Agnico Eagle Answer:</b>	<p>Agnico Eagle thanks DFO for their comment and confirms the work for replacement of Culverts 7 and 10 along the AWAR, and Culvert 11 along the Bypass Road is planned for 2024. The as-built report for this work will be submitted to the NWB as per the Water Licence.</p> <p>As for the fish habitat assessment near KM15, it will also be conducted in 2024 and reported on in the 2024 Annual Report. Agnico Eagle will continue to keep DFO apprised of work progress at this location.</p>
<b>Comment:</b>	DFO looks forward to reviewing the completed works and considers this comment resolved.

<b>Comment Number:</b>	DFO-2
<b>Subject/Topic:</b>	Location Data of Shipping Vessels
<b>References:</b>	Appendix 27: Meadowbank and Meliadine Mines Marine Mammal and Seabird Report, 2023; 38 – 2022 Annual Report Comments Tracking Table
<b>Comment:</b>	<p>Gap/Issue : This item was identified in the review of the 2022 Annual Report and remains a concern for DFO. Project Certificates 004, 006, and 008 require vessels supplying the Meadowbank Complex and Meliadine mines to avoid sensitive marine mammal and seabird habitats such as haul-outs and breeding colonies.</p> <p>Ongoing outages for location data of ships has been an issue - AEM has previously stated that “Additional effort will be made to ensure Groupe Desgagnés provides accurate track data to Agnico Eagle”. However, vessels have had AIS issues lasting 12 hours to several days. The 2023 Annual Report did not contain the vessel tracking data so it is uncertain if this issue persists.</p>
<b>Conclusion/Request:</b>	<p>Proponent to provide additional details on any additional effort being implemented to ensure accurate vessel tracks, and compliance with setbacks from sensitive habitats.</p> <p>Proponent to provide a summary of satellite outages and missing location data for 2023 shipping.</p>
<b>Agnico Eagle Answer:</b>	As per Agnico Eagle’s response to the 2022 Annual Report Comments (DFO-3) and as reported in the 2023 Marine Mammal and Seabird Annual Report, Agnico

	<p>Eagle acquires archived AIS data from Vesseltracker, a commercial AIS supplier that aggregates AIS data from satellite and shore-based stations. These data vary in frequency based on distance from shore, location of shore-based stations, and position of satellites. In some cases, AIS position data is available on an hourly or sub-hourly basis, but in other cases, position data can be 12 hours or more between fixes, due to the scarcity of satellites over remote areas such as the Arctic. As the position data is one fixed point in time using satellite AIS data, it is not possible to summarize “outages”, but can provide a summary on the frequency of location fixes. Agnico Eagle has reviewed the location data for the 11 vessels (23 inbound trips) from 2023 to provide a summary of these gaps in location data, provided below:</p> <ul style="list-style-type: none"> <li>• In total, the 2023 data contained 1,961 location fixes over the 23 trips.</li> <li>• There was an average of 85 location fixes per journey, with a range of 26 to 255.</li> <li>• Excluding location fixes when the vessels were anchored, and only considering the vessel tracks while underway, there was an average of 22 fixes per journey, ranging from 5 to 82.</li> <li>• The total time vessels spent in the study area averaged 21 days (often times anchored for long periods of time), ranging from 8 to 80 days, with the average number of locations fixes per day ranging among vessels from 1.8 to 5.9 (minimum of 1 and maximum of 13).</li> </ul> <p>The frequency of fixes is beyond the control of Agnico Eagle, as it is often due to a “gap” in satellite availability over the location of the vessel in the Arctic at the time. As reported in the 2023 Marine Mammal and Seabird Annual Report, where AIS data was recorded frequently (every hour), vessel tracks avoided the setback areas. However, in some cases, the AIS data was recorded less frequently (every 6 to 12 hours). For example, during a vessel trip by the Marlin Hestia in September, no positions were recorded over two days between September 16 and September 18; therefore, the vessel track appears as a straight line going directly across Coats Island, while in fact the vessel traveled south of Coats Island, after confirming this information with the vessel captain. In October, the Kivalliq W. appears to cross over Southampton Island, as no positions were recorded over</p>
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	<p>24 hours, and the vessel made a stop in the community of Coral Harbour. Due to the poor resolution of these data, information (e.g., route, setbacks) regarding these trips cannot be extrapolated with confidence.</p> <p>In all cases where it appears that vessels may have intersected setbacks, Agnico Eagle investigates the point locations further, as per Section 3.1.1 of the Marine Mammal and Seabird Annual Report. In 2023, it was noted that the same vessel entered the 2 km Marble Island buffer on two occasions (once in August, and once in October). Prior to the 2024 shipping season, vessel captains were reminded of the importance of maintaining a 2 km buffer around Marble Island.</p> <p>Agnico Eagle continues to investigate alternative commercial AIS suppliers regularly; however, Vesseltracker remains the most reliable in the Arctic at this time. Agnico Eagle continues to train contracted shipping companies regularly and to remind them of the importance of maintaining sensitive habitat buffers. Indeed, meetings take place prior to the start of the shipping season and throughout the season each year, during which the mitigation measures and shipping requirements are discussed. A post-mortem meeting is also conducted after the shipping season is completed.</p>
<b>Comment:</b>	DFO appreciates the information provided including the instances where buffers/setbacks were intersected. DFO will continue to work with Agnico Eagle and shipping providers towards more reliable vessel tracking to ensure buffers/setbacks are maintained.

<b>Comment Number:</b>	DFO-3
<b>Subject/Topic:</b>	Marine Mammal Monitoring Program
<b>References:</b>	Appendix 27: Meadowbank and Meliadine Mines Marine Mammal and Seabird Report, 2023
<b>Comment:</b>	<p>Gap/Issue: This item was identified in the review of the 2022 Annual Report and remains a concern for DFO.</p> <p>Current Marine Mammal Monitoring survey efforts (1 survey per day, lasting 1.5-2 hours) are not sufficient for effective marine mammal monitoring.</p>
<b>Conclusion/Request:</b>	DFO will work with the proponent to update their marine mammal monitoring protocol and include increased monitoring efforts.

<b>Agnico Eagle Answer:</b>	<p>Agnico Eagle thanks DFO for their comment and wishes to reiterate that Agnico Eagle is operating as per its approved Shipping Management Plan and Marine Mammal Monitoring Protocol.</p> <p>As per Agnico Eagle's responses to the 2022 Annual Report Comments and as mentioned in the 2023 Annual Report, the protocol is for a dedicated MMSO to complete a minimum of one survey per day, however two or three surveys daily is preferred when timing allows, with each marine mammal survey lasting for a minimum of 1.5 hours to not more than two hours to mitigate observer fatigue and eyestrain. The marine mammal monitoring program is well implemented, with more than one dedicated marine mammal survey per day being frequently conducted during shipping.</p> <p>In addition, crew members are always scanning for marine mammals. If a marine mammal is observed during the voyage outside of the dedicated marine mammal observation period (i.e., off-effort), this is recorded as an incidental sighting, and any mitigation required to avoid marine mammals during shipping is recorded and reported in the annual report.</p> <p>Further and as reported in previous Marine Mammal and Seabird Annual Report reports, no interactions (e.g., strikes) between vessels and marine mammals or seabirds were recorded by the shipping companies in 2023 or in previous years, demonstrating the current monitoring program is adequate to prevent interactions with wildlife.</p> <p>Agnico Eagle is available to discuss with DFO at their convenience.</p>
<b>Comment:</b>	DFO will continue to work with the proponent to ensure monitoring efforts are adequate and effective.

<b>Comment Number:</b>	DFO-4
<b>Subject/Topic:</b>	Aquatic Invasive Species
<b>References:</b>	Shipping Management Plan (Version 4); 38 - 2022 Annual Report Comments Tracking Table
<b>Comment:</b>	Gap/Issue: This item was identified in the review of the 2022 Annual Report and remains a concern for DFO.

	<p>Current monitoring plans do not include a monitoring program for aquatic invasive species.</p> <p>There is a risk of introducing aquatic invasive species through haul contamination from ships coming from Quebec. The Shipping Management Plan requires the shipping companies contracted to supply the Meliadine Mine through the annual sea-lift operations to comply with the Ballast Water Regulations, which reduces the risk of invasive species being introduced as a result of shipping activities, but does not eliminate this risk so that monitoring for the occurrence of aquatic invasive species is required to confirm this.</p>
<b>Conclusion/Request:</b>	<p>Proponent to consider a non-Indigenous Species/Aquatic Invasive Species Monitoring Program around zones of higher risk.</p> <p>Proponent to provide specific monitoring and mitigation measure that are being conducted, including but not limited to any ballast water treatment, monitoring for aquatic invasive species, any haul clean-up and maintenance protocols, etc.</p>
<b>Agnico Eagle Answer:</b>	<p>As per Agnico Eagle's response to DFO-5 comment on the 2022 Annual Report, Agnico Eagle contracts shipping companies that comply with all applicable regulations, including the Ballast Water Regulations, which reduces the risk of invasive species being introduced as a result of mine related shipping activities.</p> <p>Under the Ballast Water Regulations, all vessels are required to have a Ballast Water Management Plan. The Ballast Water Management Plan is written in accordance with the requirements of Regulation B-1 of the International Convention for the Control and Management of Vessels' Ballast Water and Sediments and aims to prevent, minimize, and ultimately eliminate the risk of introducing harmful aquatic organisms and pathogens from vessels' ballast water and associated sediments, while protecting vessel's safety.</p> <p>Agnico Eagle contracts Transport Canada certified shipping companies that are using standard and acceptable practices common for all vessels in the Canadian Arctic, complying with the requirements and shipping regulations related to the concerns DFO has expressed, including Project Certificate Terms and Conditions, the Shipping</p>

	Act, the and the Ballast Water Regulations. Agnico Eagle feels this issue is resolved.
<b>Comment:</b>	DFO acknowledges the proponents response and practice of contracting Transport Canada certified shipping companies that adhere to the Ballast Water Regulations. However DFO does not consider this issue resolved. Currently there is no monitoring to confirm non-indigenous species transfer does not occur. A Non-Indigenous Species/Aquatic Invasive Species Monitoring Plan/Program is necessary to confirm that non-indigenous species transfer/introduction does not occur. DFO is committed to discussing options and to working with the proponent to resolve this issue.

<b>Comment Number:</b>	DFO-5
<b>Subject/Topic:</b>	Underwater Noise
<b>References:</b>	Shipping Management Plan / MMSO / Noise Monitoring; 38 - 2022 Annual Report Comments Tracking Table
<b>Comment:</b>	<p>Gap/Issue: This item was identified in the review of the 2022 Annual Report and remains a concern for DFO.</p> <p>Underwater noise from shipping vessels has the potential to elicit disturbance effects on marine mammals by reducing their ability to travel, communicate, and find food.</p> <p>During the 2023 shipping season, 23 vessel trips served the project. We currently do not know what noise level and characteristic is produced by those shipping vessels and the potential impact on marine mammals.</p> <p>The FEIS predicted the residual environmental effect of a change in marine mammal behaviour as a result of Project vessel noise was considered to be low in magnitude, however the likelihood of behavioural disturbance from Project-related vessel noise was considered likely. However there is no monitoring of noise levels to help understand and mitigate these effects.</p>
<b>Conclusion/Request:</b>	DFO to work with the Proponent to monitor and model their noise footprint using expert support. This model should aim at evaluating the impact of shipping noise on marine mammals present on the shipping route. A Shipping Management Plan should be updated according to the model.

<b>Agnico Eagle Answer:</b>	<p>Agnico Eagle would like to note that discussion was already initiated between Agnico Eagle and DFO on the topic of underwater noise monitoring.</p> <p>As previously communicated to DFO, Agnico Eagle is willing to participate in a committee led by DFO and including all relevant stakeholders involved with shipping activities in Nunavut.</p>
<b>Comment:</b>	DFO appreciates the proponents response and willingness to participate in discussions related to shipping activities in Nunavut.

<b>Comment Number:</b>	DFO-6
<b>Subject/Topic:</b>	Appendix on fish and fish habitat
<b>References:</b>	NA
<b>Comment:</b>	<p>Gap/Issue: The annual reporting would benefit from the inclusion of an appendix specific to fish and fish habitat, similar to that provided by AEM for the Meadowbank complex. This would allow Fisheries and Oceans Canada to more efficiently review relevant information in the annual report, including compliance with the Fisheries Act.</p>
<b>Conclusion/Request:</b>	<p>DFO to work with proponent to develop an appendix to the annual report that will include the following:</p> <ul style="list-style-type: none"> <li>• Report on death of fish;</li> <li>• Report on Harmful Alteration, Disruption and Destruction of fish habitat;</li> <li>• Report on fish passage issues;</li> <li>• Fish-out activities;</li> <li>• Measures implemented to avoid and mitigate impacts to fish or fish habitat; and</li> <li>• Offsetting activities.</li> </ul>
<b>Agnico Eagle Answer:</b>	<p>Agnico Eagle would like to note the referred Appendix for the Meadowbank Complex Annual Report is provided in accordance with the Fisheries Act Authorizations (FAAs) for the Meadowbank Complex. When an FAA is issued for the Meliadine Mine, Agnico Eagle will include an Appendix specific to fish and fish habitat in future Annual Reports.</p> <p>For 2023, Agnico Eagle would like to refer DFO to information provided in Section 7.5 of the 2023 Annual Report for the work conducted under Letter of Advice 23-HCAA-00223.</p>
<b>Comment:</b>	DFO acknowledges the proponents response and adherence to reporting requirements of applicable Fisheries Act Authorizations. DFO appreciates efforts by Agnico Eagle



	to provide information in the Annual Reports in a concise manner, and continues to recommend that a separate Appendix be developed for each Annual Report summarizing compliance with general <i>Fisheries Act</i> requirements.
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If you have any questions with the content of this letter, please contact Derek Donald by email at [Derek.Donald@dfo-mpo.gc.ca](mailto:Derek.Donald@dfo-mpo.gc.ca). Please refer to the file number referenced above when corresponding with the Program.

Sincerely,



Chris Shapka  
Senior Biologist  
Fish and Fish Habitat Protection Program  
Fisheries and Oceans Canada

CC:  
José Audet-Lecouffe, Fisheries and Oceans Canada  
Derek Donald, Fisheries and Oceans Canada