

Government of Canada Information Requests Submission

For the Nunavut Impact Review Board's (NIRB) Reconsideration of
Agnico Eagle Mines Ltd. "Meliadine Extension" Project Proposal

NIRB File: No. 11MN034

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September 6, 2022

Karen D. Costello
Executive Director
Nunavut Impact Review Board
P.O. Box 1360
Cambridge Bay, NU X0B 0C0

Via e-mail: info@nirb.ca

Government of Canada's Information Requests for the Technical Review of Agnico Eagle Mines Limited's Final Environmental Impact Statement Addendum for the "Meliadine Extension" Project Proposal

Dear Karen Costello,

Thank you for your letter dated August 5, 2022, requesting that interested parties submit Information Requests to identify gaps within Agnico Eagle Mines Limited's (AEM) Final Environmental Impact Statement Addendum (FEIS Addendum) that need to be addressed so that parties can complete their technical review for the "Meliadine Extension" Project Proposal. The Canadian Northern Economic Development Agency's Northern Projects Management Office (NPMO) is providing a coordinated response on behalf of federal departments participating in this assessment, including: Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC), Fisheries and Oceans Canada (DFO), Environment and Climate Change Canada (ECCC), Natural Resources Canada (NRCan), Transport Canada (TC), and Health Canada (HC).

The following federal departments have reviewed the information in the FEIS Addendum provided by AEM and have submitted information requests included with this letter:

- CIRNAC
- DFO
- ECCC
- HC
- NRCan

Transport Canada does not have any information requests, and will continue to participate in the upcoming stages of the Nunavut Impact Review Board's (the Board) reconsideration process.





The Government of Canada's June 7th letter stated that the proposal may require changes to the to existing Project Certificates terms and conditions to reflect changes in applicable federal legislation, notably the recent changes to the *Fisheries Act*.

The Government of Canada is looking forward to continued participation in the Board's reconsideration process. Should you have any questions or concerns, please contact me at 867-446-0579 or at Adrian.paradis@cannor.gc.ca.

Sincerely,

Adrian Paradis

Senior Project Manager

Northern Projects Management Office, Canadian Northern Economic Development Agency

c.c. Lisa Dyer, Director General, Northern Projects Management Office, Canadian Northern Economic Development Agency

Spencer Dewar, Director, Nunavut, Crown-Indigenous Relations and Northern Affairs Canada

Alasdair Beattie, Team Lead, Fish and Fish Habitat Protection Program, Fisheries and Oceans Canada, Central and Arctic Region

Kim Pawley, Manager, Environmental Assessment, Land Use Planning and Conservation, Crown-Indigenous Relations and Northern Affairs Canada

Jodi Small, Unit Head, Environmental Protection Operations Directorate, Environment and Climate Change Canada

Peter Unger, A/Director, Impact Assessment, Explosives Safety and Security Branch, Natural Resources Canada

Margaret Zellis-Skiba, A/Regional Manager, Environmental Programs, Prairie and Northern Region, Transport Canada

David Kitchen, Regional Manager, Environmental Health Program, Manitoba/Saskatchewan



Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC)

Mandate, roles and Responsibilities for AEM's Meliadine Extension

Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) has a broad mandate for the co-management of land and water resources in Nunavut, as well as the management of Crown land under the following applicable acts and regulations:

- The *Department of Crown-Indigenous Relations and Northern Affairs Act*;
- The *Nunavut Land Claims Agreement Act* and the *Nunavut Agreement*;
- The *Nunavut Planning and Project Assessment Act* (NuPPAA);
- The *Arctic Waters Pollution Prevention Act* and Regulations;
- The *Nunavut Waters and Nunavut Surface Rights Tribunal Act* and Regulations; and
- The *Territorial Lands Act* and Regulations.

As set out in the *Nunavut Agreement* (Section 12.8.3) and NuPPAA (Subsection 112(6)), the Minister of Northern Affairs, in concurrence with other responsible Ministers, will have a decision-making role for the proposed project based on the Nunavut Impact Review Board's (NIRB) Reconsideration Report and Recommendations. If the proposed project is approved to proceed, CIRNAC will continue to be responsible for the enforcement of the terms and conditions of the NIRB's project certificate, Crown land authorization, and water licences issued for the project.

As part of the NIRB's assessment process, CIRNAC, along with other parties, acts as an intervenor in the reconsideration, providing advice and expertise to the NIRB. Based on CIRNAC's regulatory mandate and decision-making roles, CIRNAC is participating in the assessment process by providing the following expertise related to Agnico Eagle Mines Limited's (AEM) Meliadine Extension Project Proposal works, activities, and associated management, mitigation and monitoring plans:

- Environmental impact assessment methodology and best practices, including cumulative effects assessment;
- Surface water quality and quantity;
- Groundwater quality and quantity;
- Marine water quality as affected from land;
- Permafrost;
- Waste management;
- Vegetation;
- Crown land contamination/degradation; particularly closure and reclamation planning); and
- Socio-economic impact assessment and monitoring; and
- Indigenous consultation and accommodation.

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In addition, CIRNAC administers the Northern Participant Funding Program to help Indigenous Peoples and Northerners access the resources and expertise needed to participate effectively in impact assessments of major resource or infrastructure development projects in the North. To facilitate participation in the NIRB’s assessment of AEM’s Meliadine Extension Project Proposal, CIRNAC has awarded funding allocations to three Indigenous organizations who have an interest in the proposed project. The organizations that were funded include: Kivalliq Inuit Association, Northlands Denesuline First Nation and Sayisi Dene First Nation.

Information Request No.	Subject	References	Issue/Concern	Information Request
CIRNAC-IR-01	Discovery Waterline	<ul style="list-style-type: none"> • Meliadine Extension FEIS Addendum, July 2022 • Appendix D35 – Water Management Plan • Appendix H-07 – Meliadine Extension Water Balance and Water Quality Model - Technical Report 	<p>Agnico Eagle Mines Limited (AEM) indicates that water collected at the Discovery site will be conveyed through a waterline to the Saline Effluent Treatment Plant (SETP), where it will be treated prior to discharge into the receiving environment (Itivia Harbour) using the approved waterline. The FEIS Addendum does not describe the Discovery waterline and how it will be operated. In addition, potential environmental interactions and impacts associated with the Discovery waterline are not assessed.</p>	<p>CIRNAC requests that AEM:</p> <ul style="list-style-type: none"> a) Provide descriptions of the Discovery waterline infrastructure (physical characteristics, placement, alignment, operation, etc.). b) Provide an assessment of potential environmental interactions and impacts associated with the Discovery waterline.

CIRNAC-IR-02	In-Pit Disposal	<ul style="list-style-type: none"> • Meliadine Extension FEIS Addendum, July 2022 • Appendix D18 – Conceptual Closure and Reclamation Plan • Appendix D21 – Mine Waste Management Plan • Appendix H-06 – Hydrogeology Modelling Report • Appendix H-07 – Meliadine Extension Water Balance and Water Quality Model -Technical Report 	<p>As part of the current assessment, AEM is seeking approval for the following options/alternatives to complement the current mine waste management strategy:</p> <ul style="list-style-type: none"> a) use of exhausted pits to store tailings; and b) use of exhausted pits to store waste rock. <p>The FEIS Addendum indicates that in-pit disposal has been approved for the Meadowbank Mine and, on that basis, AEM suggested that in-pit disposal should not be included in the scope of the current Meliadine reconsideration process. CIRNAC notes that, in the case of Meadowbank, AEM completed a broad array of site-specific baseline studies and analyses that were considered when in-pit disposal was approved. For the Meliadine Mine, similar studies have yet to be performed. For example, the FEIS Addendum and supporting documents provide limited information regarding how in-pit disposal would be applied at the Meliadine site. In addition, the FEIS Addendum does not evaluate the potential environmental interactions and impacts associated with in-pit disposal. In the absence of this information, CIRNAC is unable to determine whether in-pit disposal might result in significant adverse environmental impacts at the Meliadine Mine.</p>	<p>CIRNAC requests that AEM:</p> <ul style="list-style-type: none"> a) Describe the in-pit disposal methods, general design parameters, operating practices and limitations; b) Describe the specific circumstances that would trigger the option to use in-pit disposal; c) Describe the evaluations that would be done prior to regulatory approval of in-pit disposal (e.g., updated site-specific hydrogeological and geochemical modelling, etc.); d) Describe expected closure approaches (e.g., water and/or granular covers); and e) Provide an assessment of potential environmental interactions and impacts associated with in-pit disposal.
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CIRNAC-IR-03	Temporary Storage of Saline and Surface Contact Water in Pits	<ul style="list-style-type: none"> • Meliadine Extension FEIS Addendum, July 2022 • Appendix D35 – Water Management Plan • Appendix H-07 – Meliadine Extension Water Balance and Water Quality Model – Technical Report 	<p>The FEIS Addendum indicates that exhausted open pits may be used as an alternative contact water storage location, if required. Other than identifying the pits that are being considered for water storage (i.e., TIR02, WES04 and WES05), the FEIS Addendum and supporting documents do not contain any information on the alternative. For example:</p> <ul style="list-style-type: none"> a) The FEIS Addendum does not evaluate potential environmental interactions and impacts associated with temporary storage of contact water in pits; b) The Water Balance and Water Quality Model (Appendix H-07) does not account for storage of water in pits; and c) The Water Management Plan (Appendix D-35) does not describe how water stored in pits will be managed. <p>In summary, the FEIS Addendum and supporting documents present insufficient information to assess the environmental implications of storing water in pits.</p>	<p>CIRNAC requests that AEM:</p> <ul style="list-style-type: none"> a) Describe the approaches that will be used to store contact water in pits including general design parameters, operating practices and limitations (e.g., volumes stored, storage duration, any required treatment, eventual discharge to the environment); b) Describe the specific circumstances that would trigger the option to store contact water in pits; c) Describe the evaluations that would be done prior to regulatory approval of in-pit storage of contact water (e.g., updated site-specific hydrogeological and geochemical modelling); and
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				d) Provide an assessment of potential environmental interactions and impacts associated with storing contact water in pits.
CIRNAC-IR-04	Evolution of Project Changes	<ul style="list-style-type: none"> Meliadine Extension FEIS Addendum, July 2022 	<p>Since the Meliadine Mine was originally approved in 2015, AEM has implemented multiple changes towards improving the physical infrastructure and management practices at the mine. The “Meliadine Extension” proposes further changes that are intended to optimize mining operations and environmental performance.</p> <p>Based on the information provided to date, it is not straight forward for reviewers to distinguish between previously approved and new project elements. Additional information will therefore be helpful to ensure the current reconsideration process specifically considers those aspects of the project that are associated with the Meliadine Extension.</p>	<p>CIRNAC requests that AEM:</p> <p>a) Provide a tabular summary of all infrastructure that has been proposed or built at the Meliadine Mine since its inception, including the date it was approved, licensed, and constructed. At minimum, this should include all: pits, underground mining, mine waste storage facilities (tailings and waste rock), water management facilities (e.g., ponds, treatment plants, conveyance, discharge), transportation</p>

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				<p>infrastructure and buildings. If a proposed piece of infrastructure was not built or is no longer required, please indicate why.</p> <p>b) Provide annotated figures (e.g., site maps) summarizing the information contained in a) that clearly illustrate existing infrastructure and proposed new infrastructure.</p>
CIRNAC-IR-05	Wind Power Generation	<ul style="list-style-type: none"> Meliadine Extension FEIS Addendum, July 2022 	<p>Term and Condition (T&C) # 9 of Project Certificate No.006 requires AEM to develop a pro-active approach to limiting greenhouse gas (GHG) emissions throughout the life of the Meliadine Mine. The FEIS Addendum (S.5.4.3.3) indicates that total emissions of greenhouse gases from the Meliadine Mine were 122.8 kt CO₂e in 2020. A technical assessment by Hatch(Hatch 2021) reportedly concluded that that the construction of five wind turbines would achieve a reduction of about 47 kt CO₂e/yr (i.e., roughly 38% of the 2020 total). The Hatch study was not included in the FEIS Addendum submission.</p> <p>The FEIS Addendum (S.2.3.12) states that <i>“To build and operate the windfarm, Agnico Eagle could partner with the community or use internal resources.”</i> Additional information on this maybe useful to better understand what kind of options AEM are considering in partnership with the community.</p>	<p>CIRNAC requests that AEM:</p> <p>a) Provide a copy of the Hatch report that evaluates potential GHG emissions reductions associated with wind turbines.</p> <p>b) Provide additional information regarding partnership with community or other group in the building and</p>

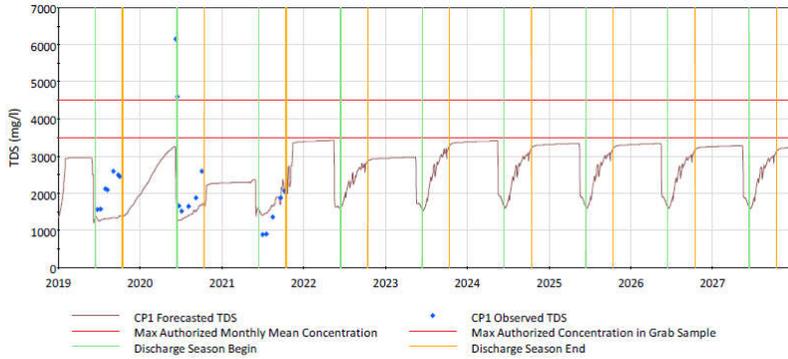
				operation of windfarm.
CIRNAC-IR-06	Minimizing Discharges to Meliadine Lake	<ul style="list-style-type: none"> • Meliadine Extension FEIS Addendum, July 2022 • Appendix D-01 – Adaptive Management Plan for Water Management • Appendix H-07 – Meliadine Expansion Water Balance and Water Quality Model -Technical Report • AEM response to CIRNAC TRC-05 from the Waterline Review Process 	<p>During the NIRB review of AEM’s proposal for the “Saline Effluent Discharge to the Marine Environment”, AEM developed an Adaptive Management Plan (AMP) for Water Management. The AMP was submitted as Appendix D-01 to the FEIS Addendum for the Meliadine Extension. The first guiding principle of the AMP is as follows:</p> <ol style="list-style-type: none"> 1. <i>Water discharges to Meliadine Lake will be minimized or eliminated (per commitment made during the waterline application and reflected in Term and Condition 25a, per Project Certificate No.006 – Amendment 002).</i> <p>At the time of the Waterline EA, AEM indicated that the maximum volume of water requiring discharge to Meliadine Lake would be 4,034 m³/day <i>if</i> the waterline was approved (see AEM response to CIRNAC TRC-05 from the Waterline Review process). Assuming water is also discharged via the waterline at a maximum rate of 20,000 m³/day, discharges to Meliadine Lake were therefore predicted to represent only 17% of all discharges (with the remaining 83% being discharged to Itivia Harbour).</p> <p>In contrast, the FEIS Addendum for the Meliadine Extension Project (Appendix H-07 S.5.1.4) states:</p> <p style="text-align: center;"><i>The maximum predicted annual discharge volume to Meliadine Lake translates to a daily maximum discharge rate of 17,200 m³/day</i></p> <p>Under this scenario, discharges to Meliadine Lake would be more than 300% greater than predicted at the time of the Waterline EA. In addition, the proportion of discharges to Meliadine Lake would also increase to 46% (with the remaining 54% being discharged to Itivia Harbour).</p>	<p>CIRNAC requests that AEM:</p> <ol style="list-style-type: none"> a) Confirm the maximum discharge volumes to Meliadine Lake, as presented in the Waterline FEIS and the Meliadine Extension FEIS; b) Present the rationale for any differences in the volumes reported under a); and c) Indicate what steps will be taken to fulfill the commitment to minimize or eliminate discharges to Meliadine Lake (e.g., ongoing grouting to limit saline water inflows to the mine).

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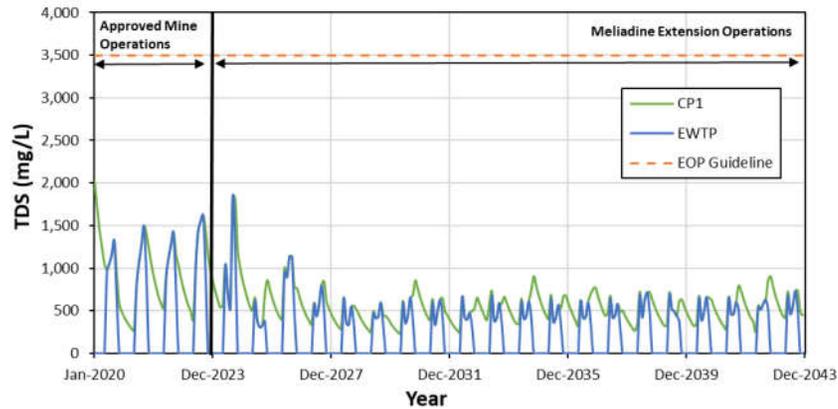
			<p>Based on our initial review of the FEIS Addendum for the Meliadine Extension Project, CIRNAC has been unable to identify the rationale for the substantive increases in the volume of discharges to Meliadine Lake relative to the volumes that were predicted at the time the Waterline EA was approved. In addition, we have not identified information to confirm that discharges to Meliadine Lake will be minimized under the Meliadine Extension proposal.</p>	
CIRNAC-IR-07	Total Dissolved Solids (TDS) Concentrations in CP1	<ul style="list-style-type: none"> • Meliadine Extension FEIS Addendum, July 2022 • Appendix H-07 – Meliadine Expansion Water Balance and Water Quality Model -Technical Report • 2021 Meliadine 	<p>Higher than expected Total Dissolved Solids (TDS) concentrations in mine contact water at the Meliadine Mine has triggered several major changes since the project was originally approved. Those changes include: a) the addition of a waterline to discharge mine contact water to Itivia Harbour; and b) an amendment to the Water Licence No. 2AM-MEL1631 to increase the TDS effluent quality criterion (EQC) for discharges to Meliadine Lake from 1,400 mg/L to 3,500 mg/L.</p> <p>Concentrations of TDS in Collection Pond 1 (CP1) are used as an indicator of TDS management challenges experienced at the site. The following figure, which was extracted from AEM’s 2021 Annual Report to the NIRB, indicates</p>	<p>CIRNAC requests that AEM:</p> <ul style="list-style-type: none"> a) Confirm that future TDS concentrations in CP1 are now predicted to remain below 1,000 mg/L; b) Describe the factors that resulted in predicted TDS concentrations in CP1 reducing by more than 70% under the proposed

Annual Report
 (as submitted
 to the NIRB)

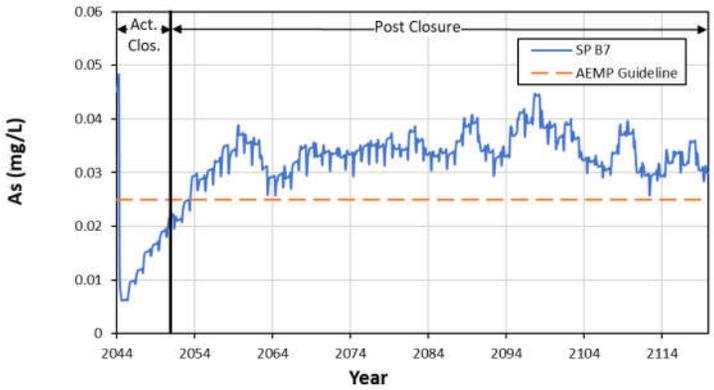
that maximum TDS concentrations in CP1 will consistently approach the
 Emergency Amendment discharge criterion of 3,500 mg/L.



In contrast, the following figure was extracted from Appendix H-07 (Figure 6-4) of the FEIS Addendum. In this case, concentrations of TDS in CP1 are predicted to remain well below 1,000 mg/L after 2026. This represents a reduction of more than 70% when compared to the predictions presented in the 2021 Annual Report.



Meliadine
 Extension.

			<p>Based on our initial review of the FEIS Addendum, CIRNAC was unable to determine why TDS concentrations in CP1 are now predicted to be substantively lower than previously anticipated. It is possible that the reduction is attributable to changes in the overall saline water management strategy for the site (e.g., improved segregation of saline drainage from tailings, waste rock and ore, as well as direct discharge from SP B7 to the saline waterline). Nonetheless, further details on the factors that contributed to the major reduction are required.</p>	
<p>CIRNAC-IR-08</p>	<p>Post-Closure Arsenic Concentrations in SP B7</p>	<ul style="list-style-type: none"> • Meliadine Extension FEIS Addendum, July 2022 • Appendix H-07 – Meliadine Extension Water Balance and Water Quality Model -Technical Report 	<p>Saline Pond (SP) B7 will play an important role in saline water management under the Meliadine Mine Extension. CIRNAC was unable to determine the location of SP B7 during our initial review of the FEIS Addendum.</p> <p>The FEIS Addendum (Appendix H-07) indicates that loadings associated with the small volumes of contact water from the tailings storage facility and waste rock storage facility #1 are predicted to maintain elevated concentrations of arsenic in SP B7 during Post-Closure. The elevated arsenic concentrations (as illustrated in in Figure 6-19 which is reproduced below) are consistently above the Aquatic Effects Management Plan (AEMP) guideline of 0.025 mg/L.</p> 	<p>CIRNAC requests that AEM:</p> <ol style="list-style-type: none"> a) Provide a figure illustrating the location of SP B7; b) Indicate whether aquatic species will have access to SP B7 during post-closure; c) Confirm that the predicted arsenic concentrations in SP B7 are spatially averaged and that localized concentrations may be higher; d) Indicate whether sensitivity analyses have been performed to confirm that arsenic concentrations in SP B7 during post-closure will not be

			CIRNAC was unable to confirm whether aquatic species will have access to SP B7 during post-closure (e.g., through connection with the Tiri Pit Lake).	substantively greater than currently predicted.																		
CIRNAC-IR-09	Post-Closure Arsenic Concentrations in Tiri Pit Lake	<ul style="list-style-type: none"> • Meliadine Extension FEIS Addendum, July 2022 • Appendix H-07 – Meliadine Extension Water Balance and Water Quality Model - Technical Report 	<p>As shown in the following plot (Figure 6-31 from Appendix H-07), arsenic concentrations in the Tiri Pit Lake trend upwards throughout the post-closure phase and it appears that equilibrium has yet to be reached by the end of the model run.</p> <table border="1"> <caption>Estimated Arsenic Concentration Data from Figure 6-31</caption> <thead> <tr> <th>Year</th> <th>As (mg/L)</th> </tr> </thead> <tbody> <tr><td>2044</td><td>0.000</td></tr> <tr><td>2054</td><td>0.001</td></tr> <tr><td>2064</td><td>0.004</td></tr> <tr><td>2074</td><td>0.007</td></tr> <tr><td>2084</td><td>0.009</td></tr> <tr><td>2094</td><td>0.011</td></tr> <tr><td>2104</td><td>0.012</td></tr> <tr><td>2114</td><td>0.013</td></tr> </tbody> </table> <p>Based on the above, it is unclear to CIRNAC whether the modelling was of sufficient duration to predict the maximum post-closure arsenic concentrations in the lake. CIRNAC also notes that prior long-term modelling performed by AEM for other mine sites (e.g., the Whale Tail Pit Project) concluded that predictions are accurate within one order of magnitude. The current FEIS Addendum does not indicate the assumed level of accuracy of predictions.</p>	Year	As (mg/L)	2044	0.000	2054	0.001	2064	0.004	2074	0.007	2084	0.009	2094	0.011	2104	0.012	2114	0.013	<p>CIRNAC requests that AEM:</p> <ol style="list-style-type: none"> Extend the modelling duration until results demonstrate that maximum concentrations within surface water receivers have been achieved; Confirm that the predicted arsenic concentrations in the Tiri Pit Lake are spatially averaged and that localized concentrations may be higher (e.g., in the vicinity of drainage from SP B7); Indicate the approximate accuracy of the water quality modelling presented in the FEIS Addendum; and
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2044	0.000																					
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2114	0.013																					

				<p>d) Indicate whether sensitivity analyses have been performed to confirm that arsenic concentrations in Tiri Pit Lake during post-closure will not be substantively greater than predicted.</p>
CIRNAC-IR-10	<p>Post-Closure Seepage Quality from Reclaimed Areas</p>	<ul style="list-style-type: none"> • Meliadine Extension FEIS Addendum, July 2022 • Appendix H-07 – Meliadine Extension Water Balance and Water Quality Model -Technical Report 	<p>The Water Balance and Water Quality Model (Appendix H-07, Table 4-9) states:</p> <p style="text-align: center;"><i>All mine facilities areas, ore pads, and disturbed areas will be reclaimed at the end of operations. These areas will revert to background water quality at closure.</i></p> <p>Regardless of the effectiveness of environmental controls during operations and the effectiveness of reclamation, CIRNAC questions AEM’s conclusion that the past mining operation will not result in chemical loadings that are higher than background. For example, atmospheric dispersion of dust from ore, waste rock and tailings would typically be expected to result in some deposition of metals throughout the site at concentrations that are above background. Other materials will also serve as a source term of potential metal loading (e.g., roads and pads constructed from waste rock). These metal sources typically have the potential to leach into the receiving environment at concentrations that are higher than background.</p>	<p>CIRNAC requests that AEM:</p> <ul style="list-style-type: none"> a) Confirm that post-closure water quality modelling presented in the FEIS Addendum assumes that metal loadings from reclaimed areas of the site will be equal to loadings from background areas; and b) Provide evidence from other mine sites that seepage from reclaimed areas will revert to background conditions.

<p>CIRNAC-IR-11</p>	<p>Interflow and Modelling Period</p>	<ul style="list-style-type: none"> • Meliadine Extension FEIS Addendum, July 2022 • Appendix H-07 – Meliadine Extension Water Balance and Water Quality Model -Technical Report 	<p>The FEIS Addendum presents predictions of long-term seepage from the Waste Rock Storage Facilities (WRSFs). For example, the following figure illustrates predicted runoff and interflow from a generic WRSF under climate change scenario RCP 4.5 (Figure 3-6 from Appendix H-07).</p> <p>As shown in the figure, interflow is predicted to increase over time (as indicated by a negative flux). Based on the information presented, it is unclear whether the predicted increase is attributable to climate change or whether it is caused by the WRSF becoming progressively more saturated. In addition, it is unclear to CIRNAC whether the modelling performed in support of the Meliadine Extension proposal is of sufficient duration to extend past the point at which the WRSFs will reach their full field storage capacity (i.e., saturation). In the case of other sites (e.g., Whale Tail), this “wetting up” period can last multiple decades, after which the contaminant leaching rates from the WRSFs were predicted to increase significantly.</p>	<p>CIRNAC requests that AEM:</p> <ol style="list-style-type: none"> Demonstrate that the temporal scope of all water quality modelling for the Extension Project extends past the point at which the WRSFs will reach their full field capacity.
<p>CIRNAC-IR-12</p>	<p>Discovery Tailings Management</p>	<ul style="list-style-type: none"> • Meliadine Extension FEIS 	<p>As AEM mentioned in S.6.2.3.3, Discovery is the only Meliadine deposit where most tailings have the potential to generate acid rock drainage (ARD). AEM proposes to mitigate the ARD potential of the Discovery tailings by</p>	<p>CIRNAC requests that AEM:</p>

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		<p>Addendum, July 2022</p>	<p>encapsulating the material in non-PAG tailings within the Tailings Storage Facility (TSF).</p> <p>CIRNAC wants to know whether AEM considered other management options for the Discovery tailings. Specifically, the FEIS Addendum does not describe whether the Discovery tailings could be: blended / co-mingled with tailings that have low ARD potential, deposited underground as paste backfill, or placed in mined-out pits (i.e., in-pit disposal).</p>	<p>a) Indicate whether it has evaluated the advantages and disadvantages of alternative management approaches for the Discovery tailings with elevated ARD potential. If yes, please provide a summary of any such evaluations.</p>
CIRNAC-IR-13	Treatment of CP1 Water Prior to Discharge	<ul style="list-style-type: none"> • Meliadine Extension FEIS Addendum, July 2022. • Appendix H-07 – Meliadine Extension Water Balance and Water Quality Model -Technical Report 	<p>Section 5.1.4 of Appendix H-07 states that all surface contact water collected in CP1 is routed to the Effluent Water Treatment Plant (EWTP) for treatment, targeting removal of Total Suspended Solids (TSS) and ammonia (NH₃), before discharge to the receiving environment. This appears to be inconsistent with the conceptual site water management flow diagram (Figure 2-2, S.5.1.4) which indicates that untreated CP1 water is discharged to Itivia Harbour via the waterline (after mixing with treated saline water from SP B7).</p>	<p>CIRNAC requests that AEM:</p> <p>a) Clarify whether all CP1 surface contact water will be treated before discharge to the environment.</p>

CIRNAC-IR-14	Conceptual Socio-economic Closure Analysis	<ul style="list-style-type: none"> • Meliadine Project – Analysis of the Risk of Temporary Mine Closure, February 2019 • Meliadine Extension FEIS Addendum, July 2022 • NIRB EIS Guidelines, February 2012 	<p>It is important for AEM to continue working with interested parties to plan for potential socio-economic impacts that may result when operational activities at the Meliadine Mine will eventually come to an end and the project enters a closure phase. In addition to final closure, this phase can include temporary closure and care and maintenance scenarios. The project proposal makes reference to the Meliadine Mine’s scheduled closure date of 2032 being extended until 2043. In support of this timeline, Section 10.1.3.2 of the submitted FEIS Addendum provides a mine development sequence that outlines when AEM anticipates carrying out various closure related activities such as the dismantling of infrastructure, the flooding of pits, and the implementation of a post-closure monitoring program. While it is necessary for ecosystemic considerations to be considered in closure planning, AEM should also prioritize the consideration of potential socio-economic impacts associated with the Meliadine Extension project proposal. Planning is required to develop adequate management plans, monitoring procedures, and mitigation practices. Such efforts would prevent and/or minimize potential negative impacts to the project’s surrounding socio-economic environment when it will inevitably enter into a closure phase. Section 8.2.1.2 of the NIRB’s EIS Guidelines requests the following information that would support closure planning activities:</p> <ul style="list-style-type: none"> • <i>Potential impacts on local and regional economy due to temporary closure and final closure.</i> <p>This requested information also aligns with baseline information called for under Section 8.2.1.1 of the NIRB’s EIS Guidelines. For example, this particular section requests that AEM provide details on:</p> <ul style="list-style-type: none"> • <i>The roles of renewal resources exploitation (e.g., subsistence and commercial hunting and fishing) plays in the economy and its significance for the local economy;</i> • <i>Community and resident self-reliance.</i> 	<p>CIRNAC requests that AEM:</p> <p>a) Review its 2019 Analysis of the Risk of Temporary Mine Closure and make any necessary updates based on the current Meliadine Extension project proposal. Consideration should be directed toward relevant information requested under Section 8.2.1.1 and Section 8.2.1.2 of the NIRB’s EIS Guidelines.</p>
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			<p>Based on CIRNAC’s assessment of the submitted project proposal, information cannot be found pertaining to AEM’s assessment of potential socio-economic impacts that may result to the local and regional economy should the project enter into a closure phase as a result of the Meliadine Extension project proposal. CIRNAC recognizes that AEM previously submitted to the NIRB its 2019 Analysis of the Risk of Temporary Mine Closure pursuant to the requirements of Term and Condition 90 of Project Certificate No. 006 (NIRB PRI-#324985). Included in this document is an analysis of the effects of temporary closure on Kivalliq communities complete with an assessment of anticipated socio-economic impacts and the presentation of mitigation measures.</p>	
CIRNAC-IR-15	Workforce Barriers Analysis	<ul style="list-style-type: none"> • Agnico Kivalliq Projects 2017 Socio-Economic Monitoring Report, July 2018 • Meliadine Extension FEIS Addendum, July 2022 • NIRB EIS Guidelines, February 2012 	<p>Pursuant to Section 8.2.3.2 of the NIRB’s EIS Guidelines, AEM is requested to provide information concerning its assessment of workforce barriers and any planned management practices it has developed in response. This information will improve the understanding of issues that may prevent Kivalliq residents and businesses from maximizing their participation in project activities through employment and contracting opportunities along with possible solutions. The section requests AEM to provide the following information:</p> <ul style="list-style-type: none"> a) <i>Discussion of potential need of local labour force training to meet the needs of the project. The types of training can be those specifically required by the Project, or others geared toward universally applicable skills that improve workers’ opportunities in other sectors of the local economy. This assessment shall include predicted training resources and predicted resources needed to meet the designed training programs, if applicable;</i> b) <i>Evaluation of training programs planned by the Proponent, the associated challenges and likelihood of success of trainees to satisfy the Project needs and regional economy development with consideration of cultural and language barriers;</i> c) <i>Discussion of the potential for longer term community capacity building programs, if any have been planned or will be planned and are anticipated to be implemented throughout the Project’s lifetime,</i> 	<p>CIRNAC requests that AEM:</p> <ul style="list-style-type: none"> a) Review its most recent Inuit Workforce Barriers Study and make any necessary updates based on the current Meliadine Extension project proposal. Consideration should be directed toward relevant information requests included in Section 8.2.3.2 of the NIRB’s EIS Guidelines; b) Make the Inuit Workforce Barriers Study available to the NIRB for consideration in the

			<p><i>regarding how mine training plans can enhance the transferability of skills after the mine closure (e.g., management and HR skills, computer skills, heavy equipment experience, finance skills, etc.); and,</i></p> <p>d) <i>Discussion of other possible solutions to fill up the gap between requirements of project needs, and education level and qualifications of local labour force.</i></p> <p>Based on a review of the submitted project proposal, additional information may be necessary for AEM to demonstrate that it has fully addressed the information requested by the NIRB’s EIS Guidelines in light of the Meliadine Extension project proposal. CIRNAC recognizes that AEM’s 2017 Kivalliq Projects Socio-Economic Monitoring Report makes reference to an Inuit Workforce Barriers Study commissioned by AEM and the Kivalliq Inuit Association that was expected to be finalized in mid-2018 (p. 20). This report may require updates based on information made available since its release and/or changes associated with the Meliadine Extension project proposal.</p> <p>CIRNAC also acknowledges that Section 9.4 of the FEIS Addendum provides assessments of primary effect pathways and supporting discussion on education and training associated with the Meliadine Extension project proposal. These assessments demonstrate the potential for positive impacts in the areas of:</p> <ul style="list-style-type: none"> • Improvement in education achievement, dropout rates, school attendance; • Improvement in available training in existing education system and funding; and • Improvement on education and skill levels of local workforce. 	<p>Meliadine Extension project proposal assessment, provided there are no privacy requirements; and</p> <p>c) Submit to the NIRB a plain language summary of its main findings, if the Inuit Workforce Barriers Study cannot be shared with the NIRB for privacy reasons.</p>
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Environment and Climate Change Canada (ECCC)

Environment and Climate Change Canada (ECCC) carries out its legislated responsibility under Article 12 of the *Nunavut Agreement* and Section 197 of the *Nunavut Project and Planning Assessment Act (NuPPAA)* by providing recommendations, advice, and information within its mandate to both the proponent and decision-makers. ECCC’s advice may be used to develop potential conditions or measures that may accompany a final decision for the Project.

The mandate of ECCC is determined by the statutes and regulations under the responsibility of the Minister of Environment and Climate Change. In delivering this mandate, ECCC is responsible for the development and implementation of policies, guidelines, codes of practice, inter-jurisdictional and international agreements, and related programs. ECCC’s specialist advice is provided in the context of the *Canadian Environmental Protection Act (CEPA)* including the Disposal at Sea (DAS) Regulations, the pollution provisions of the *Fisheries Act (FA)* including the Metal and Diamond Mining Effluent Regulations (MDMER), the *Migratory Birds Convention Act (MBCA)*, and the *Species at Risk Act (SARA)*.

ECCC administers the pollution prevention provisions of the *FA*, which prohibits the deposit of a deleterious substance into water frequented by fish. The MDMER regulate the deposit of mine effluent and mine waste into water frequented by fish and places referred to in subsection 36(3) of the *FA*. Under MDMER, Environmental Effects Monitoring is a science-based performance measurement tool used to evaluate the adequacy of the effluent regulation in protecting fish, fish habitats and the usability of fisheries resources. ECCC also regulates DAS under *CEPA* with the objective of protecting the marine environment. Regulated aspects of DAS include the loading of material for disposal, the transport of that material to a disposal site and the disposal itself.

ECCC is responsible for protecting and conserving migratory bird populations and individuals under the *MBCA*. ECCC also administers *SARA* in cooperation with Fisheries and Oceans Canada and the Parks Canada Agency to prevent wildlife species from being extirpated or extinct; to provide for the recovery of wildlife species that are extirpated, endangered or threatened as a result of human activity; and to manage species of special concern to prevent them from becoming threatened, endangered or extirpated.

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ECCC-IR-01	Ambiguity in spatial boundaries for air quality	<ul style="list-style-type: none"> FEIS Addendum, Section 5.1.2.1 Air Quality 	Figure 5.1-1, which is not labelled, depicts spatial boundaries for the Local Study Area at both 2 km and 6 km from the All Weather Access Road, which makes the actual study area unclear.	ECCC recommends that the Proponent provide additional information to resolve the ambiguity in this figure.

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ECCC-IR-02	Inconsistency between text and Climate Data Table	<ul style="list-style-type: none"> FEIS Addendum, Section 5.3.3.1 Temperature 	<p>The text discusses average temperatures for January and July, but Table 5.3-1 displays the same values for average maximum temperatures of these months.</p>	<p>ECCC recommends that the Proponent resolve the inconsistency between the text and Table 5.3-1.</p>
ECCC-IR-03	Explanation of apparent discontinuity in snow data before and after 1960	<ul style="list-style-type: none"> FEIS Addendum, Section 5.3.3.2 Precipitation 	<p>On page 98 of the FEIS Addendum (PDF page 133), the Proponent states that an apparent discontinuity in the snow data before and after 1960 may be due to a change in snow measurement equipment or methods. It is also possible that winds were stronger before 1960, which would make snow measurements more challenging.</p> <p>The addition of average wind speeds for each snow season may assist in determining the influence of wind speed on the accuracy of snowfall measurements.</p>	<p>ECCC recommends that the Proponent add a plot of average wind speed for each snow season to Figure 5.3-1 to assess the possible influence, if any, of wind speed on accuracy of snowfall measurements.</p>
ECCC-IR-04	Greenhouse Gases (GHG) Emission Estimate	<ul style="list-style-type: none"> FEIS Addendum, Section 5.4.3 Effects of Meliadine Extension on Climate Change 	<p>The GHG emission estimate:</p> <ul style="list-style-type: none"> The Proponent assumes the GHG emissions estimate during the operation phase to be equal to the estimate from the original 2014 FEIS. It is unclear whether the proposed expansion will impact the original design capacity/throughput of the project. An increase in throughput is likely to have an impact on GHG emissions, which should be estimated. The Proponent only provides the GHG emission estimate for the operations phase of the expansion, however the construction and decommissioning phases of the expansion will also contribute to GHG emissions, which should be estimated. Some of the methodology, data sources, assumptions and justification used for the GHG quantification are not provided. <p>Mitigation measures and net-zero plan:</p>	<p>ECCC recommends the following information be provided in consultation with the Draft Technical Guide Related to the Strategic Assessment of Climate Change: Guidance on quantification of net GHG emissions, impact on carbon sinks, mitigation measures, net-zero plan and upstream GHG assessment (“the draft Technical Guide”):</p> <p>GHG emission estimate:</p> <ol style="list-style-type: none"> ECCC recommends that the Proponent confirm any change in project throughput / capacity as

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			<ul style="list-style-type: none"> • ECCC acknowledges the Proponent’s commitment to building wind turbines, and the strategies to reduce fuel consumption outlined in the GHG Reduction Plan. ECCC encourages the Proponent to provide additional information on the proposed mitigation measures. • The Proponent has not provided information on the GHG implications for the project’s post-closure phase activities, which extend beyond 2050. ECCC also acknowledges that ongoing exploration activities may extend the life of the mine into the future. As a result, ECCC encourages the Proponent to consider developing a credible net-zero plan to align with Canada’s goal of achieving net-zero emissions by 2050. <p>Carbon sinks: Some activities within the scope of the proposed expansion may impact current land use, and the ability of those land areas to function as carbon sinks. The Proponent has not considered the project’s potential impact on carbon sinks.</p>	<p>a result of the proposed expansion, and the associated change to GHG emissions, if applicable.</p> <ol style="list-style-type: none"> 2. ECCC recommends that the Proponent provide more information on the GHG emission estimate, including methodologies, assumptions, emission factors, and equipment details. 3. ECCC recommends that the Proponent provide a GHG emission estimate for construction and decommissioning phases of the expansion. 4. ECCC recommends that the Proponent provides GHG emission reduction information on the wind turbines according to steps in Section 2.1.3. of the draft Technical Guide. 5. ECCC recommends the Proponent provide an emission intensity according to Section

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				<p style="text-align: right;">2.1.5. of the draft Technical Guide</p> <p>Mitigation measures and net-zero plan:</p> <ul style="list-style-type: none"> 6. ECCC recommends that the Proponent review and incorporate the guidance for mitigation measure principles and the Best Available Technologies / Best Environmental Practices (BAT/BEP) determination process in Section 3 of the draft Technical Guide. 7. ECCC recommends that the Proponent develop a net-zero plan for the project according to section 3.5 of the draft Technical Guide. <p>Carbon sinks:</p> <ul style="list-style-type: none"> 8. If the project is anticipated to impact carbon sinks, ECCC recommends the Proponent performs an assessment of the project’s impact on

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				carbon sinks. Guidance for a carbon sink impact assessment can be found in section 4 of the draft Technical Guide.
ECCC-IR-05	Assessment of waste rock and tailings in-pit disposal	<ul style="list-style-type: none"> • FEIS Addendum Section 1.1.5.1 Regulatory Regime • FEIS Addendum Section 2.5.1 Use of Exhausted Pits to Store Tailings • FEIS Addendum Table 7.5-1: Potential Primary Pathways for Fish and Fish Habitat 	<p>The Proponent is seeking approval for the option/alternative to use exhausted pits to store tailings and waste rock (Section 1.1 Introduction).</p> <p>The FEIS Addendum (Section 2.5.1) states: “Agnico Eagle is assessing the potential for in-pit slurry tailings deposition as an alternative to the dry stacking method currently employed. If there is no in-pit disposal, the alternative is to continue with current practices. However, in-pit disposal would improve the current economics and mine planning, reduce overall freshwater consumption during closure reflooding, while using existing Meliadine Mill for ore processing facilities, within an area that has previously been impacted. Moreover, in-pit disposal would reduce the surface area impacted by the project by reducing the footprint of the TSF...</p> <p>Agnico Eagle is evaluating locations for in-pit tailings deposition. Current open pits assessed (i.e., WES01, WES04, WES05, WN01, PUM01, PUM03) are shown on Figure 2.5-1. Refinements will be further assessed as part of the Type A Water Licence amendment with the NWB.”</p> <p>The Proponent has stated that the in-pit disposal of tailings and waste rock does not need to be considered by the NIRB, with use of this disposal method at Meadowbank cited in support of this position (Section 1.1.5.1).</p>	ECCC recommends that the Proponent provide a comprehensive evaluation of the disposal of tailings and waste rock to mined-out pits, which examines the interactions with groundwater, effects on pit water quality and surface water quality, and considers any closure implications. This should include information on water cover depth, pore water quality, pit wall geometry and composition, tailings and rock geochemistry, and monitoring and mitigation measures.

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			<p>“As described in Section 2.5 of the Project Description, Agnico Eagle is considering implementing the future option/alternative of in-pit disposal at Meliadine as part of Meliadine Extension. Agnico Eagle was previously approved by NIRB to proceed with in-pit tailings disposal at the Meadowbank Mine. Agnico Eagle notes that at the conclusion of the NIRB reconsideration process, the NIRB determined the existing Terms and Conditions were sufficient (Project Certificate No.004-Amendment 003) and ultimately referred the application to the NWB. Based on the decision of the NIRB in relation to in-pit disposal at Meadowbank, Agnico Eagle suggests that in-pit disposal should not be included within the scope of any reconsideration process that the NIRB determines is required in relation to the Meliadine Extension, and that aspect of the Meliadine Extension should be referred directly to NWB for detailed consideration as part of the Water Licence amendment process.”</p> <p>Assessment of the use of mined-out pits for disposal of waste rock and tailings, and potentially storage of saline water, is necessary in order to determine the potential water quality impacts associated with these activities, and whether these would have any implications for the NIRB reconsideration process. ECCC is of the view that the scope of environmental effects for the proposed Meliadine Extension project should be evaluated based its own merits, and not determined by the Board's decisions for other projects.</p> <p>The assessment of primary pathways for fish and fish habitat states that water quality in flooded pits has been previously</p>	

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			<p>assessed (Table 7.5-1), however this is not the case for the Meliadine mine for pits containing waste rock, tailings, or those that would be used to store saline water.</p>	
ECCC-IR-06	Clarification of Pathways Table	<ul style="list-style-type: none"> • FEIS Addendum Table 7.4-1 Potential Primary Pathways for Water Quality under Environmental Design Features and Mitigation 	<p>Table 7.4-1 includes several statements which require clarification:</p> <ul style="list-style-type: none"> • First row, Mining activities and water management (pdf page 304): States that treated sewage will be piped to the tailings storage facility (TSF). The TSF is a dry stack facility, and not designed to receive liquids. • First row, Mining activities and water management (pdf page 304): States that water quality will meet water license limits at the edge of the mixing zone in Meliadine Lake; however, licensed effluent quality limits are to be met at the final discharge point, that being the end of the pipe, not the edge of the mixing zone. • Second row, Mine and supporting infrastructure (pdf page 305): it is asserted that the dust pathway and effects have been previously assessed. However, airstrip dust emissions have not been previously assessed nor are they included in this assessment. Airstrip dust emissions would require different dust suppressants or mitigation measures than roads. • Last row, Pits (closure and post-closure) (pdf page 305): There is no mention of the effects of tailings/waste rock disposal in pits. Contrary to the statement that the pathway and effects have been previously assessed, this has not previously been done for Meliadine with respect to the requested in-pit disposal of tailings and waste rock. 	<p>ECCC recommends that additional information be provided to clarify the following:</p> <ol style="list-style-type: none"> 1. how treated sewage wastewater will be disposed of, as it is currently being sent to CP1 (Appendix D35 Water Management Plan, Section 2.8.2); 2. that the Proponent confirm that licence limits will be met at end-of-pipe, not edge-of-mixing zone; 3. the assessment of potential dust effects and mitigation measures for the airstrip; and 4. how the conclusions of the effects pathway assessment for pits would differ with disposal of waste rock and tailings to pits.

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ECCC-IR-07	Mill Process Water – Water Balance	<ul style="list-style-type: none"> • Appendix D35 Water Management Plan Figure 4 Conceptual Site Surface Contact Water and Saline Contact Water Management Plan • Appendix H7 Water Balance and Water Quality Model Section 2.2.4 Consumptive Freshwater Uses 	<p>Figure 4 of the Water Management Plan does not include flows to and from the mill, and these are not included in the source terms for the Water Balance and Water Quality model. This is explained in Section 2.2.4 which states that mill make-up water is supplied from Meliadine Lake and not included as direct inputs because that water is included in the water balance as seepage and reporting to underground.</p> <p>It is not clear how the water from the mill will be reporting to the underground, and what proportion will end up as seepage or report to other locations. Based on the 2021 monthly monitoring reports, about 30,000+ m³ per month of mill make-up water is collected from Meliadine Lake, indicating that a comparable amount is being transferred to other areas. Tracking the pathway of process water volumes should be included in the water balance, and the model inputs should be reviewed to confirm where it is accounted for.</p> <p>ECCC requests clarification on the mill process water fate and quality in the context of contributions to the water quality model and overall water balance.</p>	ECCC recommends additional information be provided to clarify the fate and quality of mill process water in the context of contributions to the water quality model and overall water balance.
ECCC-IR-08	Climate Change Modelling	<ul style="list-style-type: none"> • FEIS Addendum Section 2.2 Meliadine Extension Phases • FEIS Addendum Section 5.4 Climate Change and Greenhouse Gases 	<p>Section 5.4.1 of the FEIS Addendum indicates that climate change Representative Concentration Pathway (RCP) 4.5, an intermediate future emission scenario, was selected as the Meliadine Extension climate change base case for all project modeling and design. In section 5.4.4 the Proponent outlines a number of potential climate change interactions with project infrastructure (e.g. permafrost and “large precipitation events”). Section 2.2. indicates that the final phases of the project (closure and post-closure) extend from ~2040-2060.</p> <p>The RCPs are meant to provide a range of possible changes in future anthropogenic GHG emissions. The best practice for</p>	Given the potential sensitivity of the proposed project to future climate change, ECCC requests that AEM provide additional rationale as to why a range of climate change scenarios were not considered for the Meliadine Extension project and identify any risks associated with limiting climate change RCPs to a more moderate prediction.

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			<p>considering uncertainty in future climate projections is to consider an ensemble of projections from across the range of future emission scenarios (low to high forcing) and models. A probability of occurrence has not been ascribed to the different future emission scenarios and they diverge increasingly beyond ~2040.</p>	
ECCC-IR-09	Migratory Bird Pathways of Effect – Proposed Airstrip	<ul style="list-style-type: none"> • FEIS Addendum Section 6.7.4 Assessment of Potential Meliadine Extension-related Effects • Appendix B Part 2 Pathway Tables 	<p>The Proponent has not provided an assessment of impacts to migratory birds, and more broadly wildlife and wildlife habitat, from the proposed optional airstrip.</p> <p>Under section 6.7.4 the Proponent states that where “pathways determined to have no linkage, or those that are considered minor, are not predicted to result in environmentally significant effects and are not assessed further.”</p> <p><i>In Appendix B Pt. 2 Table B-3: Terrestrial Environment – No Linkages and Minor Pathways</i> the Proponent deems the effect to be minor as “the on-site airstrip is anticipated to have 4-6 flights per week during operations and closure. The same number of flights to the Rankin Inlet airstrip was specified in the 2014 FEIS. Therefore there is no change in bird-aircraft collision risk.”</p> <p>ECCC does not support equating the environmental effects, of construction and operation, on migratory birds, wildlife and wildlife habitat, of the proposed new airstrip to that of the previous environmental affects assessment detailed in the 2014 FEIS, which looked at the existing airport in Rankin Inlet. The zone of influence of the existing airport in Rankin Inlet and proposed airstrip at the mine site do not overlap, thus the effects from the construction and use of the new airstrip is required to be independently assessed.</p>	ECCC considers the airstrip to be a novel disturbance within the Project and Local Study Areas and requests the Proponent include the optional airstrip as a new pathway of effect to migratory birds and their habitat.

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ECCC-IR-10	Local Study Area	<ul style="list-style-type: none"> • FEIS Addendum Section 6.1.4.1 Terrestrial Local Study Area • Appendix B Part 2 Pathway Tables 	<p>The location of the proposed airstrip and the wind farm may have compounding or additive adverse effects on migratory birds and their habitats. Staging waterfowl on waterbodies near and around the airstrip and the wind farm may be startled during low-level flights (i.e. take-offs and landings) and be driven toward the wind farm resulting in inadvertent harm and potentially death.</p> <p>ECCC notes that the Local Study Area (LSA) has been extended to incorporate the Meliadine Extension and is consistent with the 2014 FEIS, where a 500m buffer was applied to the Meliadine Extension footprint. This leaves a large area between the airstrip and wind farm that fall outside of the LSA and where there may be potential for compounding or additive adverse effects.</p> <p>For reference, to reduce aircraft disturbance, ECCC recommends avoiding known concentrations of birds (e.g. staging and molting area) by a lateral distance of at least 1.5km. ECCC recommends that this buffer be considered in establishing an appropriate LSA around the wind farm and airstrip that encompasses the area between and around the sites in which effects to migratory birds may be felt.</p>	<p>Due to the risk of compounding or additive adverse effects to migratory birds from the airstrip and wind farm, ECCC requests:</p> <ol style="list-style-type: none"> 1. The LSA be expanded around the windfarm and airstrip to encompass the area between and around the two sites. The Proponent should consider ECCC’s recommended buffer for aircraft disturbances in establishing a new buffer around the two sites and provide rationale on the new buffers. 2. The Proponent conduct an assessment of the interactions between the airstrip and the wind farm, identify any compounding adverse effects from these two sites. <p>ECCC requests that this information be used to identify mitigation, monitoring and follow-up measures.</p>
ECCC-IR-11	Bird Baseline	<ul style="list-style-type: none"> • FEIS Addendum Section 6.7.3 Existing Environment 	<p>ECCC recognizes there are gaps in the characterization of existing conditions, which reduces the confidence in the assessment of effects of the wind farm and the airstrip on migratory birds.</p>	<p>To address gaps in the baseline assessment, ECCC requests that the Proponent conduct additional pre-construction</p>

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		<ul style="list-style-type: none"> • Appendix G2 Meliadine Extension Project – Field Summary – Bird Program • ECCC’s Wind Turbines and Birds A guidance Document For Environmental Assessments and • ECCC’s Recommended Protocols for Monitoring Impacts of Wind Turbines on birds 	<p>Appendix G2 on Birds Existing Condition details Golder’s Meliadine Extension Project 2021 field bird survey program. The point count locations were chosen to maximize coverage in the windfarm and Tiriganiaq-Wolf mining areas while minimizing overlap between survey locations. ECCC notes, as detailed in Figure 1, no surveys were conducted along the arm of the windfarm containing turbines 7 through 11, representing roughly half of the wind farm site.</p> <p>Section 6.7.3 of the FEIS Addendum, provides a list of surveys completed for the 2014 FEIS along with additional surveys done between 2018 and 2021, which supported the assessment of existing conditions as well as potential impacts from the extension. ECCC notes that most surveys to date have been conducted during the nesting season and limited references have been included as to potential effects to birds during spring and fall migration, when larger concentrations of birds are moving through the region.</p> <p>ECCC’s <i>Wind Turbines and Birds: A Guidance Document For Environmental Assessments</i> (https://publications.gc.ca/collections/collection_2013/ec/CW66-363-2007-eng.pdf) and the <i>Recommended Protocols for Monitoring Impacts of Wind Turbines on Birds</i> (https://publications.gc.ca/collections/collection_2013/ec/CW66-364-2007-eng.pdf) recommends that pre-construction baseline surveys be conducted during both breeding and non-breeding seasons. Areas that contain habitat of importance to migrants as stopovers, or areas with high concentration of birds flying through pose a concern due to the risk of collision with the blades of the wind turbines. ECCC’s guidance also details procedures and protocols for conducting these surveys.</p>	<p>surveys consistent with ECCC’s <i>Wind Turbines and Birds: A Guidance Document For Environmental Assessments</i> and the <i>Recommended Protocols for Monitoring Impacts of Wind Turbines on birds</i>.</p> <p>In particular, ECCC requests:</p> <ol style="list-style-type: none"> 1. Point count surveys be expanded to cover the entirety of the wind farm footprint 2. Surveys be conducted outside the nesting season, which includes spring and fall migration 3. PRISM-style surveys be conducted in the vicinity of the wind farm and airstrip to increase detection of species not well captured by traditional point counts <p>ECCC requests that this information be used to identify mitigation, monitoring and follow-up measures.</p>

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Information Request No.	Subject	References	Issue/Concern	Information Request
			<p>Additional PRISM-style plot surveys around the wind farm and airstrip sites as part of the baseline assessment would assist in increasing the detection of bird species in these areas not well captured by traditional point count surveys.</p>	
ECCC-IR-12	Meteorological Data	<ul style="list-style-type: none"> FEIS Addendum 	<p>ECCC's <i>Wind Turbines and Birds A guidance Document For Environmental Assessments (2007)</i> recommends summarizing meteorological data from the site including data on the number of days with fog or low visibility (e.g. horizontal visibility <200 m or cloud base <200 m), particularly at times when birds may be using the area. These are important considerations when assessing risks to migratory birds posed by wind turbines, which were not included in the FEIS Addendum.</p>	<p>ECCC requests the Proponent provide site-specific meteorological information, including the number of days with fog or low visibility. ECCC requests that this information be used to inform the assessment of effects of the wind farm on migratory birds and to identify mitigation and monitoring measures and follow up.</p>
ECCC-IR-13	References	<ul style="list-style-type: none"> FEIS Addendum Section 6.7.3 Existing Environment 	<p>Section 6.7.3 references a 2018 report that ECCC was not able to locate on the registry within the Addendum materials. ECCC considers the information in the referenced report important to its review of the baseline data and effects assessment.</p> <p><i>Golder 2018b. Proposed Meliadine Windfarm – Terrestrial Baseline Report. Prepared for Agnico Eagle Mines Ltd. prepared by Golder Associate Ltd. Doc715-18102671.</i></p>	<p>ECCC requests that the Proponent provide the Golder (2018b) report for review.</p>