

June 19, 2020

Kavik Kaluraq, Chairperson
Nunavut Impact Review Board
PO Box 1360
Cambridge Bay, NU X0B 0C0

Re: **Notice and Guidance Regarding the Nunavut Impact Review Board's Processing of Agnico Eagle Mines Limited's "Saline Effluent Discharge to Marine Environment, Rankin Inlet, Meliadine Gold Mine, Nunavut" Project Proposal;**

Guidance for Impact Statement Addendum Regarding Agnico Eagle Mines Limited's "Saline Effluent Discharge to Marine Environment, Rankin Inlet, Meliadine Gold Mine, Nunavut" Project Proposal

Dear Chairperson Kaluraq,

Agnico Eagle Mines Limited (**Agnico Eagle**) is writing in response to the Nunavut Impact Review Board (**NIRB**) letter of June 9, 2020 (the **NIRB Minister's Letter**) notifying the Minister and Agnico Eagle that the NIRB is initiating a formal reconsideration of the terms and conditions of Project Certificate No. 006 in light of Agnico Eagle's "Saline Effluent Discharge to Marine Environment, Rankin Inlet, Meliadine Gold Mine" project proposal (the **Proposal**), and the subsequent letter to Agnico Eagle from NIRB of June 15, 2020 which gave additional guidance for the Addendum regarding the Proposal (the **NIRB Guidelines Letter**).

We are writing to clarify several items, provide supplemental information requested in the NIRB Minister's Letter and NIRB Guidelines Letter, and to address reasonable overall timelines for the process in light of the April 7, 2020 original NIRB filing date, previous assessments undertaken at the Meliadine Mine which are directly related to the Proposal application, and the focused scope of activities associated with the Proposal.

1. Proposal Background

In 2018, Project Certificate No. 006 was amended to permit Agnico Eagle to truck treated groundwater effluent (**Saline Effluent**) along the All Weather Access Road (**AWAR**) and release of the effluent to Melvin Bay (**Amendment No. 1**).

The Proposal relates to an existing activity (transportation of Saline Effluent) and marine discharge location, which was previously approved by NIRB and the Minister taking into account community views. The Proposal would not result in any expansion of the Meliadine Mine footprint, and does not include any proposal to discharge to a new water body. In the Proposal, instead of transporting Saline Effluent for discharge via trucking as permitted by Amendment No. 1, Agnico Eagle is proposing to now transport the Saline Effluent through waterlines (two 16 inch diameter pipes) installed alongside the AWAR and the bypass road. The Proposal would modify Amendment No. 1 to release an increased volume of effluent to Melvin Bay, which will continue to occur via diffuser and related marine infrastructure. This infrastructure would be revised to accommodate the increased volumes.

Overall, the Proposal offers environmental enhancements over current operations which address concerns the community of Rankin Inlet has previously raised to Agnico Eagle with respect to the AWAR. In particular, it will help reduce traffic on the AWAR and bypass road, since all saline truck traffic will be eliminated once the waterline is in operation. This in turn will help reduce noise, overall greenhouse gas emissions, and will also reduce potential dust emissions arising from the saline transport activity. As referenced in the Proposal, the waterline may also offer a future alternative to reduce CP1 discharges to Meliadine Lake.

2. Alternative Construction Scenarios to Original August 2020 Construction Start Date

With respect to NIRB's request for alternative construction schedule scenarios for the Proposal, Agnico Eagle has considered the extent to which the commencement of construction of the waterline can be deferred without jeopardizing having an operational waterline in place for the 2021 marine discharge season.

Timing is an important factor for the Proposal. Ideally, to meet the 2021 discharge season, the proposal would have to be approved by September 1, 2020 which is the preferred alternative at this time. A second alternative for the construction of the waterline is for approval by October 1, 2020.

If the construction alternative schedules are not met with the key approval timing of this proposal, this would mean the discharge of the Saline Effluent via waterline would be deferred to 2022. This is not ideal for the operation, and the environmental benefits of the Proposal would also be deferred until 2022.

3. Final Environmental Impact Statement Addendum for Proposal

Further to the NIRB Guidelines Letter dated June 15 2020, Agnico Eagle has already prepared a 366 page Meliadine Gold Mine – Final Environmental Impact Statement Addendum, Environmental Assessment of Treated Groundwater Effluent Discharge into Marine Environment, Rankin Inlet (April 2020) (see also NIRB Registry Nos. 329232 and 329233) (the **FEIS Addendum**) on the Proposal. The FEIS Addendum was filed with NIRB on April 7, 2020 (just over ten weeks ago) and has been available to the public for review and comment via the NIRB registry since that date. The FEIS Addendum was prepared based on the appropriate reference point, the "Guidance for Final Environmental Impact Statement Addendum for the Saline Effluent Discharge to the Marine Environment, Rankin Inlet, Meliadine Gold Mine Project Proposal" issued by the NIRB on April 16, 2018 (see also NIRB Registry No. 316766) (the **2018 FEIS Addendum Guidelines**), which considered the original FEIS Guidelines for the Meliadine Mine within the context of the transportation of saline effluent along the AWAR and bypass road and discharge to the marine environment.

Given that the overall Project remains smaller in scale than what was assessed in the FEIS and is consistent with much of the activities assessed in the 2018 FEIS Addendum, many of the predicted effects will remain unchanged as a result of the Proposal (see Schedule A for a summary of these conclusions, previously summarized for the NIRB in our correspondence of May 4, 2020 NIRB Registry No. 329808). Mitigation measures described in the original FEIS and FEIS Addendum will continue to be applied, as appropriate. Additional mitigation measures and monitoring are presented in the 2020 FEIS Addendum.

The FEIS Addendum filed on April 7, 2020 meets the key information requirements outlined at Appendix A of the NIRB Guidelines Letter and the required intervenors have been reviewing the relevant

information since it was filed. The enclosed Table of Concordance at Schedule B provides further detail, including on specific points raised in the NIRB Guidelines Letter.

As per the comments at the end of the NIRB Guidelines Letter respecting public comment received on the Proposal by NIRB to date, Agnico Eagle has considered the feedback from community, regional organizations, and individuals in terms of content and priority of items as well as valued components. This valuable feedback has been taken into consideration and specifically responded to in Agnico Eagle's letter filed with NIRB on May 13, 2020 (see NIRB Registry No. 330006), and Agnico Eagle anticipates that as the reconsideration process proceeds there will continue to be a focus on these issues and efforts to reach consensus. One key valued component that was identified was caribou, which is an item considered in the FEIS Addendum. Comments were also received on flow history, water treatment and mixing zone modelling, which are addressed in the May 13, 2020 response as well as the FEIS Addendum. Agnico Eagle has also provided further detail on alternatives in this letter and its attachments. Agnico Eagle encourages all parties and the public to review these responses as well as the FEIS Addendum, and to identify outstanding comments or concerns during the next public comment opportunity made available by NIRB.

4. Reconsideration Process Steps

NIRB has considerable flexibility and discretion in determining the appropriate process for assessment of modification proposals. Once it is established that the NIRB will conduct a reconsideration, the NIRB may carry out a written assessment, which provides for additional opportunities for engagement and discussion through verbal means such as teleconferences.

Agnico Eagle acknowledges and appreciates that the NIRB reconsideration process will proceed in a manner that takes into account current public health orders and the requirements of procedural fairness. This means that opportunities for in-person procedural components will not be available until directed by the Nunavut public health officer, and processes will need to proceed by alternative means (such as in writing, via teleconference or video calls). Agnico Eagle requests that the NIRB encourage all parties to make efforts to participate in any process components that require proceeding by means other than in-person. Should any parties require equipment to enable them to participate in this manner, Agnico Eagle is available to work with government interveners to provide technical and other support to encourage participation.

Based on previous reconsideration processes that considered infrastructure changes similar in scale to the waterline (such as Agnico Eagle's "In-Pit Tailings Disposal Modification"), the following process steps could be considered.

The preferred option would support the optimal Sept. 1, 2020 start date for construction of the waterline:

Alternative No. 1 - Preferred Option

<i>Timing</i>	<i>Process Step</i>
April 7, 2020	Proposal Application filed by Agnico Eagle with NIRB, together with FEIS Addendum and related materials.
April 14, 2020	Agnico Eagle solicits public comments on the Proposal and need for reconsideration.
April 20, 2020	NIRB grants extension to comment period to May 1, 2020 (later grants additional

	extension to May 8, 2020).
May 4, 2020	Agnico Eagle provides comments responding to NIRB's April 14, 2020 letter.
May 8, 2020	Comments received from regulatory authorities, Inuit organizations and members of the public.
May 13, 2020	Agnico Eagle provides response to public comments received.
June 9, 2020	NIRB issues NIRB Minister's Letter.
June 15, 2020	NIRB issues NIRB Guidelines Letter.
June 19, 2020	Agnico Eagle submits supplemental information on construction to NIRB solicited by NIRB Minister's Letter and submits concordance table to NIRB comparing Proposal Addendum to Appendix A Proposal Guideline (included in this response).
June 24, 2020	NIRB completes internal review of FEIS Addendum against concordance table and commences second public comment period on Proposal (*may occur earlier, as it is expected that NIRB review of FEIS Addendum filed April 7, 2020 is already underway).
Now to July 10, 2020	<p>As set out in detail in the FEIS Addendum Agnico Eagle has consulted with members of the communities on the Proposal during 2019 and 2020, most recently in Rankin Inlet in March 2020.</p> <p>Agnico Eagle is working with local community members to provide for safe opportunities for Inuit and other local residents to share their views about and provide advice on the Project, and will report on the outcome of those discussions to NIRB once available.</p>
July 15, 2020	Expiry of second public comment period.
July 20, 2020	Agnico Eagle response to public comments.
July 27-28, 2020	Technical workshop focused on terrestrial aspects and marine discharge (teleconference with available opportunities for translation).
July 29, 2020	Community component designed to support participation of community members in process taking into account public health restrictions that may be in effect at that time, (teleconference with available opportunities for translation, other means as identified).
July 30, 2020	Final written statements from interveners, Agnico Eagle and the public.
August 18, 2020	Issuance of NIRB recommendation to Minister.
August 25, 2020	Issuance of Ministerial decision.
*Sept. 1, 2020	If NIRB/the Minister determines any amendments to Project Certificate are required.

Alternative #2

Alternatively, an example of the steps that could support an October 2020 construction start timeline are as follows (extension of the NIRB process past this date would delay operation of the waterline to 2022):

Timing	Process Step
April 7, 2020	Proposal Application filed by Agnico Eagle with NIRB, together with FEIS Addendum and related materials.
April 14, 2020	Agnico Eagle solicits public comments on the Proposal and need for reconsideration.
April 20, 2020	NIRB grants extension to comment period to May 1, 2020 (later grants additional extension to May 8, 2020).
May 4, 2020	Agnico Eagle provides comments responding to NIRB's April 14, 2020 letter.
May 8, 2020	Comments received from regulatory authorities, Inuit organizations and members of the public.
May 13, 2020	Agnico Eagle provides response to public comments received.
June 9, 2020	NIRB issues NIRB Minister's Letter.
June 15, 2020	NIRB issues NIRB Guidelines Letter.
June 19, 2020	Agnico Eagle submits supplemental information on construction to NIRB solicited by NIRB Minister's Letter and submits concordance table to NIRB comparing Proposal Addendum to Appendix A Proposal Guideline (included in this response).
June 24, 2020	NIRB completes internal review of FEIS Addendum against concordance table and commences second public comment period on Proposal. (*may occur earlier, as it is expected that NIRB review of FEIS Addendum filed April 7, 2020 is already underway).
Now to July 10, 2020	Agnico Eagle consultation activities as outlined above.
August 4, 2020	Expiry of second public comment period.
August 11, 2020	Agnico Eagle response to comments.
August 17-18, 2020	Technical workshop focused on terrestrial aspects and marine discharge (teleconference with available opportunities for translation).
August 19, 2020	Community component designed to support participation of community members in process taking into account public health restrictions that may be in effect at that time, (teleconference with available opportunities for translation, other means as identified).
August 20, 2020	Final written statements from interveners, Agnico Eagle and the public.

Sept. 11, 2020	Issuance of NIRB recommendation to Minister.
Sept. 24, 2020	Issuance of Ministerial decision.
*Oct. 1, 2020	If NIRB/the Minister determines any amendments to Project Certificate are required.

5. Timelines for Reconsideration Process

Under section 114 of the *Nunavut Planning and Project Assessment Act*, the Minister may propose a reasonable period in which a reconsideration of terms and conditions must be completed.

For the reasons given above and in the Project Proposal, it would be beneficial for Agnico Eagle to be in a position to commission the operation of the waterline proposal in the spring and summer of 2021 if the Proposal is given approval. We believe that the timelines suggested above in Alternative #1 – the Preferred Option, or Alternative #2, would provide interested parties and NIRB with sufficient time for the reconsideration process, and consideration of appropriate mitigation measures, to enable a decision on the proposal to be made by September 2020.

Thank you for your consideration of these comments.

Regards,



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Regional Manager - Permitting & Regulatory Affairs

Schedule A

Components Assessed in FEIS Addendum (Agnico Eagle 2018) or Not Applicable and/or No Change in the Assessment

Source: 2020 FEIS Addendum, Table 4

FEIS Valued Component	FEIS Addendum Predicted Effect Pathways	Description of Proposed Changes	Positive and No Change Outcomes
Physical Environment			
Air Quality/ Emissions AWAR	TSP, PM10, PM2.5, NO2, SO2 and CO at 1-hour, 24-hour and Annual periods	Minimal equipment use during construction of the waterlines, could result in temporary and increased air emissions which may cause localized changes	Positive Change -The Project is a reduction in traffic volumes from the FEIS Addendum (Agnico Eagle 2018). Therefore, effects due to the proposed activities are expected to result in positive impacts compared to the FEIS Addendum (2018) approved Project, with application of mitigation measures as presented in the FEIS Addendum, and adherence to the Project Certificate conditions.
Air Quality/ Emissions - Itivia Harbour	Air emissions were assessed relative to where the greatest impacts would be measured. This assessment was completed at the Meliadine Mine site and AWAR for the construction period. Air emissions due to the proposed changes associated with construction and operation of the discharge pipe and diffuser	Equipment use during construction, minimal increase in equipment use during operations (e.g., crane for discharge pipe installation, drill for HDD), could result in increased air emissions, which may cause localized changes	No change -There are no changes expected from the approved FEIS Addendum (Agnico Eagle 2018). Effects are consistent with the approved Project. Effects due to the proposed activities are expected to result in non-significant impacts with application of mitigation measures as presented in the FEIS Addendum, and adherence to the Project Certificate conditions
Greenhouse Gases and Climate Change	Project and proposed changes will result in greenhouse gas emissions which may influence climate change	The Project is anticipated to have virtually no impact on future global climate change as the predicted Project Greenhouse Gas emissions were determined to be globally insignificant (FEIS Volume 5, Section 5.4.5).	Positive change -Effects due to the proposed activities are consistent with those previously assessed. The proposed activities are expected to result in non-significant impacts with application of mitigation measures as

FEIS Valued Component	FEIS Addendum Predicted Effect Pathways	Description of Proposed Changes	Positive and No Change Outcomes
		Effects are less than those in the approved Project due to the reduction in traffic volumes and water treatment requirements.	presented in the FEIS Addendum, and adherence to the Project Certificate conditions. With a reduction in traffic, positive impacts are expected during operations in compared to the FEIS Addendum (2018).
Noise - AWAR (operations)	Project vehicles along the AWAR will result in noise emissions, which may cause changes in noise levels	Minimal seasonal decrease in traffic along the AWAR from the use of waterlines) will likely result in a lower likelihood of sensory disturbance	Positive Change -Effects due to the proposed activities are expected to result in non-significant impacts with application of mitigation measures as presented in the FEIS Addendum, and adherence to the Project Certificate conditions. With a reduction in traffic, positive impacts are expected during operations in compared to the FEIS Addendum (2018).
Marine Environment			
Benthic Invertebrates Marine Fish and Fish Habitat (including marine vegetation)	Change in health and survivorship of marine benthic invertebrates or fish and effects to fish habitat due to inwater works and presence of pipe	Limited change from approved Project activities and equipment use and traffic at Itivia Harbour (installation of discharge pipe and port) could result in higher likelihood of potential spills and/or displacement of habitat due to the discharge pipe was included in the FEIS Addendum	No change -This was previously considered as part of the FEIS Addendum and while there may be variation in the construction methods, the effects from the proposed activities are expected to result in non-significant impacts with application of mitigation measures as presented in the FEIS Addendum, adherence to the Project Certificate and federal regulations ^a
Benthic Invertebrates Marine Fish and Fish Habitat (including marine vegetation)	Change in habitat and water quality due to discharge of treated groundwater effluent from the Meliadine Mine	Discharge of the treated groundwater effluent will meet regulatory requirements for applicable guidelines and standards	No change -Effects due to the proposed activities are expected to result in negligible to minor impacts which are not anticipated to result in a substantial change to the VCs with application of mitigation measures as presented in the FEIS Addendum, and adherence to the current Project

FEIS Valued Component	FEIS Addendum Predicted Effect Pathways	Description of Proposed Changes	Positive and No Change Outcomes
			Certificate conditions, the Groundwater Management Plan and federal regulations ^a
Marine Fish and Fish Habitat (including marine vegetation) Marine Birds and Mammals	Change in habitat due to altered water quality from a major spill	Limited change from approved Project activities and equipment use and traffic at Itivia Harbour (installation of discharge pipe and port) could result in higher likelihood of potential spills and/or displacement of habitat due to the discharge pipe has been previously assessed in the FEIS Addendum	No change -This was previously assessed as part of the FEIS Addendum and while there may be variation in the construction methods, the effects from the proposed activities are expected to result in non-significant impacts with application of mitigation measures as presented in the FEIS Addendum, adherence to the Project Certificate and federal regulations ^a
Benthic Invertebrates Marine Fish and Fish Habitat (including marine vegetation) Marine Birds and Mammals	Accidental release of treated groundwater effluent from an unknown location along the discharge pipe	Discharge of the treated groundwater effluent will meet regulatory requirements for applicable guidelines and standards. Accidental release along the discharge pipe can have direct adverse effects on marine water quality and associated indirect effects on marine wildlife and was previously considered in the FEIS Addendum	No change -This was previously considered as part of the FEIS Addendum and while there may be variation in the construction methods, the effects from the proposed activities are expected to result in non-significant impacts with application of mitigation measures as presented in the FEIS Addendum, adherence to the Project Certificate, the Groundwater Management Plan and federal regulations ^a
Benthic Invertebrates Marine Fish and Fish Habitat Marine Birds and Mammals	Reduction in sea ice thickness and or timing of seasonal freeze-up	Treated groundwater effluent discharge will be during the open water summer season only to eliminate potential effects on sea ice thickness and timing of seasonal freeze-up	No change -Effects due to the proposed activities are expected to be non-detectable and therefore non-significant with open water discharge only
Marine Sediment and Water Quality	Potential disturbance of material from near shore and in-water construction for discharge pipe installation could affect sediment and water quality	Limited change from approved Project activities and equipment use at Itivia Harbour (installation of discharge pipe and port) could result in a change to water or	No change -This was previously considered as part of the FEIS Addendum and while there may be variation in the construction methods, the effects from the

FEIS Valued Component	FEIS Addendum Predicted Effect Pathways	Description of Proposed Changes	Positive and No Change Outcomes
		sediment quality, particularly in the nearshore environment, than has been previously assessed in the FEIS Addendum	proposed activities are expected to result in non-significant impacts with application of mitigation measures as presented in the FEIS Addendum, adherence to the Project Certificate, the Groundwater Management Plan and federal regulations ^a
Socio-economics			
Economic Development Opportunities: Employment, Business Opportunities and Contracting	Project would increase the demand for labour during construction and operational phases, which should lead to a considerable number of local jobs	Construction for the proposed activities could result in the use of local contractor; however, the construction period is short, and the number of employment opportunities would be very small and could likely be filled by the contractor's existing workforce	No change - effects of the Meliadine Project on employment opportunities are expected to remain significant (positive); however, incremental change from the proposed changes is highly limited due to its scale and duration
Traditional Activities and Knowledge: Traditional Harvesting	Change in marine mammal and fish behaviour and health due to underwater noise from, or collisions with, Project vessels	No change from approved Project activities and equipment use (installation of discharge pipe and port) could impact traditional marine mammal and fish harvesting due to the discharge pipe has been previously assessed in the FEIS Addendum	No change -This was previously considered as part of the FEIS Addendum and while there may be variation in the construction methods, the effects from the proposed activities are expected to result in non-significant impacts with application of mitigation measures as presented in the FEIS Addendum, adherence to the Project Certificate

a) Federal regulations refer to MDMER and Fisheries and Oceans Canada (DFO) Measures to Avoid Causing Harm to Fish and Fish Habitat.



Schedule B

Table of Concordance 2020 FEIS Addendum and Appendix A of NIRB Guidelines Letter

Guidelines	Location in FEIS Addendum	Page Number(s)	Notes
Executive and Popular Summaries and associated translations	Plain Language & translation	i to v	
Rationale for the project with a clear description of need for and purpose of the project proposal, regulatory regime and land tenure; and specifically rationale why the previous commitments 13 and 20 made by Agnico Eagle during the assessment of the 2018 Saline Effluent Discharge Proposal were unachievable	Section 1.1.1; Section 2 Section 3.2; and Section 3.5	1 to 2; 3 to 4; 8 to 9; and 22 to 23	<p>Previous commitment 13 (<i>Regardless of the first day or last day of discharge in any given year, Agnico Eagle commits to a maximum of 800m³/day discharge through the pipe and diffuser to Melvin Bay</i>) - As per Section 3.2 groundwater flows continue to change; therefore, more water is required to manage. An assessment was completed to confirm that mixing zone requirements could be met.</p> <p>Previous commitment 20 (<i>Agnico Eagle has committed to no more than 16 one way truck trips per day for transport of saline effluent. If Agnico Eagle exceeds the number of trips due to caribou migration, weather and mechanical issues, Agnico Eagle will notify KIA with the reason</i>) - Agnico Eagle is adhering to this commitment by proposed to instal a waterline to avoid ongoing requirements for additional truck traffic.</p>
Description of Saline Effluent Discharge to Marine Environment Proposal including detailed project design, and timelines. The Proponent should make efforts to provide overall context of the project proposal, via illustration and visualization of project components, where possible, to assist parties and community members in understanding of the scale and scope of the proposed modifications	Section 3.3; Appendix A; and Appendix B	9 to 16; full document; and full document	For additional consultation meetings and for technical meetings, Agnico Eagle will have a video to illustrate project components, as done for previous applications.

Guidelines	Location in FEIS Addendum	Page Number(s)	Notes
Description on how a conservative or precautionary approach has been taken	Section 1.2.1	2	The precautionary approach for this Addendum has not changed from the 2014 FEIS or the 2018 FEIS Addendum. Conservatism was part of this assessment. The 2014 FEIS (Volume 2, Section 2.1, page 58-59) and the 2018 FEIS Addendum (Section 1.2.1) provide a general overview of Agnico Eagle's precautionary approach.
Alternatives Assessment (EIS Guidelines, section 6.4) that considers all alternative means of carrying out the project proposal, including a "no-go" alternative, and the identification and application of criteria used to determine the technical feasibility and economic viability of the alternatives to the project proposal. The analysis must be done to a level of detail which allows parties to compare the project proposal with the alternatives in terms of the economic and environmental costs, as well as the social and economic impacts and/or benefits. In addition to these general requirements, the alternatives assessment should specifically include alternative options for construction activities (timing and process) considering the August 2020 dates clarified through the initial consideration of the application is not achievable;	Section 3.4 (3.4.1 to 3.4.5)	16 to 22	<p>Agnico Eagle's preferred alternative, which has been approved, was to discharge to Melvin Bay. This FEIS Addendum is to address the change in conveyance (e.g., truck to waterline) for discharge to Melvin Bay.</p> <p>Refer to Table 1 Summary of Alternatives Assessed for Groundwater Discharge between 2014 and 2020, for a history of alternatives for the Meliadine Mine.</p>
<ul style="list-style-type: none"> rate of discharge and volume of saline effluent proposed to be discharged to the marine environment; 	Section 3.4.1; and Appendix A	17; and full document	

Guidelines	Location in FEIS Addendum	Page Number(s)	Notes
<ul style="list-style-type: none"> method of transportation of saline effluent (e.g. trucking, waterline); 	Section 3.4.2; and Table 2	17 to 18; and 18	
<ul style="list-style-type: none"> design of project components (e.g. waterline, diffuser, installation methods, routing and location, waterbody and road crossings, traditional land use crossings); 	Section 3.4.3; Section 3.4.4; and Section 3.4.5	18 to 20; 20 to 21; and 21 to 22	
Charts, diagrams, tables, maps, and photographs to clarify the text as appropriate	Complete document		
Drawings that clearly convey the various components of the project proposal	Figures 1 to 13	6-7, 10-11, 13,-15, 19, 43-46	
Maps presented in a consistent and clearly identified datum and at appropriate and clearly identified scales to allow for comparison and overlay of mapped features	Figures 1-2; Figure 3; Figure 5; and Figures 10 to 13	5 to 6; 10; 13; and 43 to 46	
Identification of spatial and temporal boundaries for this project proposal	Section 7; and Figures 10 to 13	42; and 43 to 46	
A summary of public consultation conducted with affected communities, residents, Inuit Organizations, Indigenous groups, and other governments or other organizations. The summary should include the issues raised and the Proponent's responses	Section 5; Section 5.1; Table 5; and Section 8.1.2	28; 29 to 34; 35; and 59, and 62 to 63	
A summary of Inuit Qaujimaningit, Inuit Qaujimajatuqangit, Traditional and Community Knowledge collected with respect to the current proposal and a clear description on how it was incorporated within the proposal	Section 5.2	35 to 36	

Guidelines	Location in FEIS Addendum	Page Number(s)	Notes
Identification of those valued ecosystemic components and valued socio-economic components [collectively referred to as valued components (VCs)], that are likely to be affected by the proposed project, including a description of how the VCs were selected and what methods were used to predict and assess the adverse and/or beneficial effects of the Project on these components	Section 4; Table 4; Section 7.2; and Table 7	24; 25 to 27; 47; and 47 to 50	
Summary of environmental effects assessment for each VC expected to interact with the proposed project including the following	Table 8; and Table 9	52 to 55; and 56 to 57	
<ul style="list-style-type: none"> Description of the baseline by incorporating the latest available monitoring data 	Section 6 (6.1 to 6.5)	37 to 41	
<ul style="list-style-type: none"> Anticipated changes to the environment; 	Section 8.1.1; Table 8; Table 9; and Section 8.1.2	51; 52 to 55; 56 to 57; and 58 to 63	
<ul style="list-style-type: none"> Anticipated effects (i.e., potential interactions): <ul style="list-style-type: none"> § Indicate explicitly what potential effects were or were not previously assessed § Identify the indicators (measures) and criteria used to assess impacts for each VC § Update all models as required for this proposal (e.g., noise and air quality modelling) 	Section 8.1.1; Table 8; Table 9; Section 8.1.2; and Appendix A	51; 52 to 55; 56 to 57; 58 to 63; and full document	
<ul style="list-style-type: none"> Mitigation measures 	Table 8; Table 9; and Section 8.1.2	52 to 55; 56 to 57; and 58 to 63	

Guidelines	Location in FEIS Addendum	Page Number(s)	Notes
<ul style="list-style-type: none"> Identification and classification of residual effects for each VC, clearly indicating for each residual effect identified <ul style="list-style-type: none"> § Probability of effect § Direction or nature of impact (i.e., positive/beneficial versus negative/adverse) § Magnitude and complexity of effect § Geographic extent of effect § Frequency and/or duration of effect § Reversibility or irreversibility of effect 	Section 8.1.1; Table 8; Table 9; and Section 8.1.2	51; 52 to 55; 56 to 57; and 58 to 63	
<ul style="list-style-type: none"> Determination of significance for each residual effect. 	Section 4; Table 4;	24; 25 to 27;	
Where applicable, link back to the predictions made in the FEIS or FEIS Addendum (2018) for each VC and indicate what, if any, changes are predicted in terms of potential effects, residual effects, and significance determination	Section 4; Table 4; Section 8.1.1; Table 8; and Table 9	24; 25 to 27; 51; 52 to 55; and 56 to 57	
Impacts of the environment on the project (e.g., geotechnical hazards, severe weather events such as higher than anticipated precipitation, etc.)	Section 8.1.6	65 to 66	
Cumulative Effects Assessment for each VC	Section 8.1.3	63	
Identify any uncertainties or limitations in the effects assessment	Section 8.1.4	63 to 64	

Guidelines	Location in FEIS Addendum	Page Number(s)	Notes
Human Health and Environmental Risk Assessment	not applicable, refer to FEIS Volume 10	not applicable, refer to FEIS Volume 10	<p>Some community concerns related to health have been raised to Agnico Eagle. The waterline is not anticipated to impact human or wildlife health as the groundwater is contained in a waterline and the discharge meets criteria at the edge of the mixing zone. Impacts from spills were assessed in this Addendum.</p> <p>In addition, an HHERA was not required for 2018 FEIS Addendum. There is no change in the conclusions from the 2014 FEIS.</p>
Accident and Malfunctions Assessment	Table 8; Table 9; Section 8.1.2; and Appendix C	54; 56; 58	<p>Agnico Eagle has heard concerns related to interactions between the waterline and ATVs and has been assessed in this FEIS Addendum. Mitigations in place to avoid accidents include road markers and appropriate crossings.</p>
Stand-alone management and monitoring plans with details such as monitoring methodology (including parameters to be measured), approximate sampling locations (provide a map), and monitoring frequency and duration. As well these plans should include thresholds/triggers for adaptive management and mechanism to evaluate the effectiveness of the proposed mitigation measures and adaptive management strategies. Further, the following management plans shall be included/updated to incorporate the Saline Effluentscharge to Marine Environment Proposal:	Section 8.15 + appendices noted below	64 to 65	<p>Agnico Eagle followed the approved approach from the 2018 FEIS Addendum in which two plans were submitted (Groundwater Monitoring Plan and the Ocean Discharge Monitoring Plan). Additional plans were provided with this Addendum to address the proposed change to the project.</p> <p>All Plans will continue to be updated if and when there are significant changes to the management and monitoring for the Meliadine Mine.</p>

Guidelines	Location in FEIS Addendum	Page Number(s)	Notes
<ul style="list-style-type: none"> Air Quality Monitoring Plan 	no change to the plan	refer to NIRB registry	Existing plan is sufficient to manage the proposed change NIRB Public Registry Identification: 329592 Dated April 2020; v2
<ul style="list-style-type: none"> Marine Environmental Management Plan (Appendix D of the Shipping Mgmt Plan) 	no change to the plan	refer to NIRB registry	Existing plan is sufficient to manage the proposed change. Public Registry Identification: 309707, 315640, 315233 Dated March 2017; v3
<ul style="list-style-type: none"> Groundwater Management Plan 	Appendix B of Application	full document	
<ul style="list-style-type: none"> Water Management Plan 	no change to the plan	refer to NIRB registry	Existing plan is sufficient to manage the proposed change NIRB Public Registry Identification: 329588 Dated March 2020; v9
<ul style="list-style-type: none"> Water Quality and Flow Monitoring Plan 	no change to the plan	refer to NIRB registry	Existing plan is sufficient to manage the proposed change NIRB Public Registry Identification: 329357 Dated March 2020; v3
<ul style="list-style-type: none"> Noise Abatement and Monitoring Plan 	no change to the plan	refer to NIRB registry	Existing plan is sufficient to manage the proposed change NIRB Public Registry Identification: 329357 Dated March 2020; v3
<ul style="list-style-type: none"> Sediment and Erosion Management Plan 	Appendix E of Application	full document	
<ul style="list-style-type: none"> Roads Management Plan 	Appendix D of Application	full document	
<ul style="list-style-type: none"> Dust Management Plan 	no change to the plan	refer to NIRB registry	Existing plan is sufficient to manage the proposed change Public Registry Identification: 323968 Dated March 2019; v5
<ul style="list-style-type: none"> Greenhouse Gas Reduction Plan 	no change to the plan	refer to NIRB registry	Existing plan is sufficient to manage the proposed change Public Registry Identification: 323969 Dated January 2019; v1

Guidelines	Location in FEIS Addendum	Page Number(s)	Notes
<ul style="list-style-type: none"> Terrestrial Environment Management and Monitoring Plan 	no change to the plan	refer to NIRB registry	Existing plan is sufficient to manage the proposed change. However, per the June 9 NIRB request this Plan is currently under revision for 2020 Saline Discharge Strategy
<ul style="list-style-type: none"> Ocean Discharge Monitoring Plan 	Appendix F of Application	full document	
<ul style="list-style-type: none"> Risk Management and Emergency Response Plan 	no change to the plan	refer to NIRB registry	Existing plan is sufficient to manage the proposed change Public Registry Identification: 291965 Dated April 2015; v4
<ul style="list-style-type: none"> Spill Contingency Plan 	Appendix C of Application	full document	
<ul style="list-style-type: none"> Interim Closure and Reclamation Plan 	no change to the plan		This plan will be updated with the NWB once the project is approved and NIRB will be copied on the submission
<ul style="list-style-type: none"> And any other plans that are associated with the project proposal 	not applicable	not applicable	

Table 1: Summary of Alternatives Assessed for Groundwater Discharge between 2014 and 2020

Source	Location in Assessment	Alternative Assessed	Description	Outcomes
April 2014: FEIS Submission (Agnico Eagle 2014)	Volume 2, SD 2-1, Section 5.10	Treat groundwater effluent and store/use the groundwater from the treatment process on-site	Discharge to the ocean was considered a viable alternative but at the time it was not legislated. Treat and temporarily store concentrated brine on site and pump back into underground voids	At the time of the FEIS, groundwater volumes were not fully understood to determine the appropriate approach forward. Options were carried forward through licensing with the preferred option at the time being to treat and store. It was acknowledged that additional investigations were required.
April 2015: Type A Water Licence Application process (Agnico Eagle 2015)	Water Management Plan, Appendix F	Groundwater on-site storage	Depending on the volume and timing of the water, the on-site storage options include an existing pond with hydrology connection severed, lined ponds, bladders, or open	Short-term storage was implemented on site as part of the short-term management of groundwater inflow
		Ocean disposal	Ocean disposal was recognized as the preferred management option, but at the time AEM recognized that further discussions were required with relevant stakeholders to determine if this approach is feasible under current legislation, specifically the Metal Mining Effluent Regulations. Trucking was identified as the method of transport.	Type A Water Licence 2AM-MEL1631 Part E, Item 14 - Groundwater Management Plan to be submitted at least 6 months prior to the discharge of any groundwater. The first version of the Groundwater Management Plan was submitted February 2018.
		Mix underground with surface contact water prior to release to the receiving environment (i.e. Meliadine Lake)	Depending on the volume and quality of the water reporting from underground, blending a certain amount of groundwater with surface contact water prior to release to the receiving environment was identified as a management strategy, thereby reducing the potential long-term groundwater storage requirement. Temporary storage of the underground water would be required on surface so that blending can proceed in a controlled manner to ensure final discharge criteria for TDS are met. It is anticipated that the blended water would require treatment for total suspended solids (TSS) and metals, if required prior to release to Meliadine Lake.	Treatment options were incorporated onto site, including the use of saltmakers, prior to release to any receiving environment. Evaporators have been in use on-site since mid-2017 at P1 to reduce groundwater volumes stored in surface water ponds. A single evaporator is estimated to remove approximately 500 m ³ /day when operated for 24 hours with ideal wind and relative humidity conditions

Source	Location in Assessment	Alternative Assessed	Description	Outcomes
		Treat saline groundwater and store/use the brine from the treatment process on-site	Groundwater treatment options for the site were investigated, which concluded that a combination reverse osmosis and mechanical vapour compression evaporator plant would be the most efficient method of treating excess underground water.	Evaporators were used on-site but the volumes of groundwater were greater than what evaporators could manage as a long-term strategy.
June 2018: Addendum – Environmental Assessment of Treated Groundwater Effluent Discharge into Marine Environment, Rankin Inlet (Agnico Eagle 2018)	3.3.1	Treat groundwater effluent and store/use the groundwater from the treatment process on-site	<p>The alternative of storing all excess groundwater in surface water ponds at Meliadine Mine was investigated more thoroughly.</p> <p>As outlined in the Water Management Plan (Agnico Eagle 2018c), a total of nine water containment ponds were planned on-site at the Mine surface (CP1, CP3, CP4, CP5 and CP6, the P-Area ponds [P1, P2, and P3], and the Saline Pond), and associated water retention dykes, water diversion berms, channels, and culverts, to manage surface water and underground water.</p> <p>Groundwater inputs to surface storage alone for management were expected to range approximately from a minimum of 0.11 Mm³/year to a maximum of 0.18 Mm³/year, dependent on year of Mine life (Agnico Eagle 2018c).</p> <p>The volumes of water on-site continued to be problematic as viable long-term option, but this was considered as a viable short-term option.</p>	<p>Evaporators have been in use on-site since mid-2017 at P1 to reduce groundwater volumes stored in surface water ponds. A single evaporator is estimated to remove approximately 500 m³/day when operated for 24 hours with ideal wind and relative humidity conditions.</p> <p>Short-term storage was implemented on site as part of the short-term management of groundwater inflow</p>
	3.3.2	Treated groundwater discharge to Meliadine Lake	<p>Hatch (2013) investigated groundwater treatment options for the site and concluded that a combination chemical reverse osmosis and mechanical vapour compression evaporator plant would be the most efficient method of treating excess groundwater for discharge.</p> <p>This option was described in the Addendum submitted in June 2018 as follows:</p> <p>“The groundwater will flow through a Salt Water Treatment Plant (SWTP), comprised of a set of SaltMakers, and will be treated to remove excessive total suspended solids (TSS), calcium chloride (CaCl₂),</p>	<p>Short-term storage and treatment options were implemented at the Mine pending regulatory approvals for the long-term groundwater management option.</p> <p>While evaporators have been used with some success, the combined volumes of groundwater with anticipated surface water volumes influenced by underground rock to be managed were greater than the available long-term storage at the Mine, and therefore, discharge to Meliadine Lake would be required.</p>

Source	Location in Assessment	Alternative Assessed	Description	Outcomes
			sodium chloride (NaCl), metals, phosphorus (P), and nitrogen compounds. The salt generated by the water treatment unit will be stored on-site at the Mine, where it will be re-used for underground operations and/or disposed of at an appropriate disposal location. Given the predicted groundwater volumes, a maximum of three SaltMakers are proposed to be built at the Mine, forming the SWTP, to treat the groundwater for discharge. Each SaltMaker has the capacity to treat water at a flow rate of 120 m ³ /day, and a set of three SaltMakers for the SWTP will meet the discharge volumes predicted (totalling 400 m ³ /day capacity), though temporary storage on site is required during peak underground operations where the predicted flow may be up to 420 m ³ /day."	The first SaltMaker was planned to be commissioned in Q3-2018 and the second and third SaltMakers will be built in Q1-2019 to meet increasing groundwater inflow needs. The need for a third SWTP will be determined based on the capacity of the Mine for surface and underground storage.
	3.4	Ocean disposal of treated groundwater	Discharge to Melvin Bay would allow for flexibility in water management and reduce potential impacts to Meliadine Lake, given the groundwater volumes that were observed at the Mine and future expected groundwater volumes.	The alternative was selected as the most viable option Method was approved Project Certificate Amendment was issued by the NIRB. Discharge via trucking was initiated in 2019.

Source	Location in Assessment	Alternative Assessed	Description	Outcomes
April 2020: Addendum – Environmental Assessment of Treated Groundwater Effluent Discharge into Marine Environment, Rankin Inlet Submitted to NIRB (Agnico Eagle 2020)	Section 3.4	Conveyance mode (Trucks or Waterline)	<p>Agnico Eagle has further evaluated the options of conveying the treated groundwater effluent via waterlines instead of the current method of transporting via truck. This option is considered preferable to the existing approved method as it will reduce GHG, dust, noise, and traffic on the AWAR and the bypass road that would potentially interact with caribou and local users (Table 2 of FEIS Addendum). In addition, this alternative improved overall robustness of the groundwater management plan as the waterline add contingencies by allowing future increase of treated groundwater effluent volume to be discharged, if required.</p> <p>The alternative to use both trucks and waterlines is not viable as it creates duplication and inefficiencies and does not provide an avenue to reduce environmental impacts from those currently predicted</p>	Agnico Eagle to initiate construction of pipeline in 2020 upon approval of the Project.
	3.4.3	Discharge locations	<p>Agnico Eagle evaluated five options for the routing of the waterline and discharge locations as follows:</p> <ol style="list-style-type: none"> 1) Discharge into Melvin Bay off the Itivia Fuel Storage Facility (Discharge 1) 2) Discharge into Melvin Bay off the bypass road (Discharge 2) 3) Discharge into Prairie Bay from the Char River Bridge location (Discharge 3) 4) Discharge into Prairie Bay off Johnston Cove (Discharge 4) 5) Discharge into Prairie Bay from the Meliadine River Bridge location (Discharge 5) 	<p>Discharge 1 was presented as the most viable option as the existing environment is well described and understood from previous studies conducted for the Mine.</p> <p>In addition, it presented the most viable option for adequate mixing, based on the modelling completed as part of the FEIS Addendum (Agnico Eagle 2018), and limited requirement for new disturbance areas with an available waterline right-of way and sufficient near shore construction area.</p> <p>Discharge 1 is adjacent to the approved discharge location off the Itivia Fuel Storage Facility per Project Certificate No. 006, approximately 250 m to the northwest of the approved discharge location.</p>
	3.4.4	Timing of discharge	Agnico Eagle evaluated options of discharging year-round as opposed to discharging during open water months, which is the current preferred approved option.	Agnico Eagle determined that timing of discharge should continue to be during the open-water season.

Source	Location in Assessment	Alternative Assessed	Description	Outcomes
			<p>If Agnico Eagle were to maintain the approved daily discharge rate (of 800 m³/day discharged over a 12-hour period) it would require year-round discharge and contingencies for system maintenance. This option is viable; however, year-round discharge could potentially limit traditional and non-traditional use of the Melvin Bay in the area of the diffuser.</p> <p>A new type of diffuser would potentially be required to reduce impact of the water discharge on the ice thickness. In addition, the reliability of a waterline operating during the winter months is very challenging and considered ineffective means of moving treated groundwater effluent at this time.</p> <p>Finally, infrastructure costs to allow conveyance of water during winter are prohibitive</p>	
	3.4.5	Construction method of discharge pipe	<p>Agnico Eagle completed a high-level evaluation of the constructability of pipe installation methods (Golder 2019b) as follows:</p> <ol style="list-style-type: none"> 1) Open cut and rock anchoring the pipeline to sea floor. 2) Bottom lay (method currently used for approved for treated groundwater effluent diffuser) 3) HDD (method currently used by Rankin Inlet for sewage discharge into Hudson Bay) <p>Based on preliminary data and discussions with contractors and engineering means and methods, the open cut option and HDD option were initially viable options, which also addressed environmental and installation concerns from Agnico Eagle and the local community.</p> <p>On-going investigations into HDD and open cut options determined that HDD would be preferred for the following reasons:</p> <ul style="list-style-type: none"> • discharge would not be impacted by ice erosion during this period 	The HDD method was selected and is planned for 2020.

Source	Location in Assessment	Alternative Assessed	Description	Outcomes
			<ul style="list-style-type: none"> open-cut method would create more sediments in the water than HDD 	

Source	Location in Assessment	Alternative Assessed	Description	Outcomes
March 2020: Groundwater Management Plan, submitted with 2020 FEIS Addendum	3.4.1	Short-term Management Strategy – Store saline contact water on site	<p>See 2015 Type A Water Licence application</p> <p>This alternative was considered as part of the Type A Water Licence Application and has been implemented on site as part of the short-term management of groundwater inflow. It involves storing all excess groundwater in an underground water stope and in dedicated surface saline water ponds at the Mine.</p> <p>As outlined in the WMP, a total of twelve water containment ponds are planned on Site at the Mine surface. These are CP1, CP3, CP4, CP5, CP6, the P-Area (P1, P2, and P3), SP1, SP2 (to be replaced by SP4 in 2020), SP3 and SP4). Ten of these have been constructed and are in use (CP1, CP3, CP4, CP5, P-Area [P1, P2, and P3], SP1, SP2, and SP3).</p>	<p>SP2 is scheduled for decommissioning in Q2 2020 to allow the mining of Tiriganiaq Pit 2. SP2 is to be replaced by SP4, which is scheduled to be commissioned in March of 2020.</p> <p>The addition of SP4 has two purposes. First, to replace SP2 and allow the mining of Tiriganiaq Pit 2, and second, to supply additional storage for saline water on site. The additional storage is required due to continued groundwater infiltration to the underground workings and finite existing surface storage capacity.</p> <p>In March of 2020 following the completion of SP4, water contained within SP2 and water currently stored in development underground will be transferred to SP4. SP2 will be decommissioned following this transfer of water.</p> <p>Further information on storage ponds is included in the WMP.</p>
	3.4.2	Medium-term Management Strategy – Treat saline groundwater for discharge to receiving environment in Meliadine Lake and Melvin Bay via trucking	<p>Agnico Eagle constructed and commissioned a Salt Water Treatment Plant (SWTP) consisting of two evaporator crystallizers (SaltMakers) used to treat groundwater. The SWTP consists of two parallel units. Each unit can be operated to produce brine or solid by-product.</p>	<p>The SWTP will operate in solid-mode over the duration of 2020, but at a reduced capacity due to design challenges.</p> <p>Following the commissioning of the SWTP in solid-mode over 2019, the actual operational rate has been less than design. Over Q3 and Q4 of 2019, the combined treatment rate of the two Saltmaker units (120 m3/day design total) was reported at 46.5 m3/day. Furthermore, operational capacity has been much lower than expected over this same period. As a result, over Q3 and Q4 over 2019, the SWTP treated a calculated total of 6,045 m3 (compared to a design calculated total of 20,862 m3).</p>

Source	Location in Assessment	Alternative Assessed	Description	Outcomes
	3.4.2.2	Medium-term Management Strategy – Saline effluent treatment, storage, and haulage	The volume for discharge to Melvin Bay will be increased from 800 m ³ /day to 1,600 m ³ /day. Based on forecasted groundwater inflow volumes requiring management, it is expected that o-site saline water storage capacity will be at capacity by mid-May 2021.	Addendum was submitted to the NIRB to increase discharge volumes to the ocean. At this time the approved discharged rate is 800m ³ /d.
	3.4.3	Long-term Management Strategy – Treat saline groundwater discharge to receiving environment in Melvin Bay via waterline	Based on the current inventory of saline water stored on site (Table 2 of the Groundwater Management Plan), plus current and forecasted groundwater inflows (Section 3.1), the proposed long-term strategy of discharging to Melvin Bay via a waterline will be required to ensure we meet all obligations.	The long-term strategy was submitted in Q1 of 2020 as part of the FEIS Addendum (Agnico Eagle 2020).

Table developed to support the NIRB and Interveners with the Waterline Addendum

References:

- Agnico Eagle. 2014. Final Environmental Impact Statement (FEIS) - Meliadine Gold Project, Nunavut from: <ftp://ftp.nirb.ca/02-REVIEWS/ACTIVE%20REVIEWS/11MN034-Agnico Eagle%20MELIADINE/2-REVIEW/09-FINAL%20EIS/FEIS> Accessed on November 2014.
- Agnico Eagle. 2015. Meliadine Gold Project, Type A Water Licence. Water Management Plan. Version 1. Submitted to the Nunavut Water Board. April 2015.
- Agnico Eagle. 2018. Meliadine Gold Mine – Final Environmental Impact Statement Addendum, Environmental Assessment of Treated Groundwater Effluent Discharge into Marine Environment, Rankin Inlet. June 2018.
- Agnico Eagle. 2020. Meliadine Gold Mine – Final Environmental Impact Statement Addendum, Environmental Assessment of Treated Groundwater Effluent Discharge into Marine Environment, Rankin Inlet. April 2020.

