



**EXCEPTION FROM REVIEW DETERMINATION REPORT**  
**NIRB FILE No.: 16MN056**

NWB File No.: 2AM-WTP- - - -

October 10, 2017

To: The Honourable Carolyn Bennett, P.C.,  
Minister of Crown-Indigenous Relations and Northern Affairs  
Government of Canada  
House of Commons  
Ottawa, ON K1A 0A6

and

Lootie Toomasie  
Chairperson  
Nunavut Water Board  
PO Box 119  
Gjoa Haven, NU X0B 1J0

Sent via email: [minister@aadnc-aandc.gc.ca](mailto:minister@aadnc-aandc.gc.ca); [carolyn.bennett@canada.ca](mailto:carolyn.bennett@canada.ca); and  
[lootie.toomasie@nwb-oen.ca](mailto:lootie.toomasie@nwb-oen.ca)

**Re: Exception from Review Determination for Agnico Eagle Mines Ltd.'s "Whale Tail Pit Project Type B Predevelopment Application", NIRB File No. 16MN056**

Dear Honourable Carolyn Bennett:

On July 14, 2017 the Nunavut Impact Review Board (NIRB or Board) received a submission from Agnico Eagle Mines Ltd. (Agnico Eagle or Proponent) pursuant to Section 12.10.2(b) of the *Agreement Between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in right of Canada* (Nunavut Agreement) and s. 155 of the *Nunavut Planning and Project Assessment Act* (NuPPAA)<sup>1</sup> seeking an exception from the NIRB's ongoing Review of Agnico Eagle's Whale Tail Pit Project (NIRB File No.: 16MN056) for development activities referred to as "Whale Tail Pit Project Type B Predevelopment Application". This report shall serve as the NIRB's determination regarding the "Whale Tail Pit Project Type B Predevelopment Application" ("the Exception Application") and is provided to all responsible authorities for their

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<sup>1</sup> *Nunavut Planning and Project Assessment Act*, S.C. 2013, c. 14.

consideration during the subsequent processing of any required licences, permits or approvals in respect of the works, activities and undertakings, as outlined below, that the NIRB has determined can be excepted from the ongoing Review (the “Exception Activities”).

## LEGAL FRAMEWORK

The NIRB is governed by the provisions of the Nunavut Agreement, which was negotiated based on and reflecting the following objectives:

- *to provide for certainty and clarity of rights to ownership and use of lands and resources, and of rights for Inuit to participate in decision-making concerning the use, management and conservation of land, water and resources, including the offshore;*
- *to provide Inuit with wildlife harvesting rights and rights to participate in decision-making concerning wildlife harvesting;*
- *to provide Inuit with financial compensation and means of participating in economic opportunities; and,*
- *to encourage self-reliance and the cultural and social well-being of Inuit.*

The primary objectives of the NIRB are set out in Section 12.2.5 of the Nunavut Agreement as follows:

*“In carrying out its functions, the primary objectives of NIRB shall be at all times to protect and promote the existing and future well-being of the residents and communities of the Nunavut Settlement Area, and to protect the ecosystemic integrity of the Nunavut Settlement Area. NIRB shall take into account the well-being of the residents of Canada outside the Nunavut Settlement Area.”*

These objectives are also as set out under s. 23 of the NuPPAA.

Part 10 of Article 12 of the Nunavut Agreement states:

*12.10.1 No licence or approval that would be required in order to allow a proposed project to proceed shall be issued in respect of a project that is to be screened by NIRB until the screening has been completed and, if a review pursuant to Part 5 or 6 is to be conducted, until after that review has been completed and a NIRB project certificate has been issued by NIRB pursuant to these provisions.*

### ***Exceptions***

*12.10.2 Notwithstanding Section 12.10.1, where a project proposal has been referred for review pursuant to Part 5 or 6, approvals or licences for exploration or development activities related to that project may be issued if:*

- (a) the activity falls within Schedule 12-1; or*
- (b) the activity can, in the judgement of NIRB, proceed without such a review.*

These requirements are also consistent with the Board's authority under s. 75(1) and s. 155(1) of the NuPPAA.

In previous cases involving requests for the Board to exercise its jurisdiction under this section, the Minister expressly noted the Board's role with respect to the consideration and granting of an exception from Review as follows:

*The discretion to consider and subsequently grant exceptions under 12.10.2 of the Agreement rests with the Board and should only be exercised after careful consideration.<sup>2</sup>*

Reflecting the Board's jurisdiction under this aspect of the Nunavut Agreement and the NuPPAA, upon accepting the application under Article 12, Section 12.10.2(b) and s. 155(1) of the NuPPAA, the NIRB conducted a thorough review of the technical matters pertaining to the Exception Application, including inviting written comments on the Exception Application, allowing the Proponent to present the Exception Application at the recent Final Hearing for Agnico Eagle's Whale Tail Pit Project on September 20, 2017 and allowing parties and the Board to ask questions regarding the Exception Application at the Final Hearing. Accordingly, the Board now provides this determination to the respective regulatory authorities regarding whether they can proceed to issue the required licences or approvals either in whole, or in part, required to authorize the predevelopment works described in the Exception Application independently of the conclusion of the Review of the related project. It should be noted that a determination by the NIRB to allow specific exploration and/or development activities to proceed independently of the Review of the related project under section 12.10.2(b) of the Nunavut Agreement and s. 155(1) of the NuPPAA ("the Exception Activities") does not affect the requirement for the Proponent to subsequently obtain any licences, permits or approvals required to undertake the Exception Activities.

Further, the NIRB's consideration and determination in respect of a Section 12.10.2(b) of the Nunavut Agreement and s. 155(1) of the NuPPAA Exception Application is in no way an indication of the likely outcome of the Review process associated with the related Whale Tail Pit Project to which the activities included in the Exception Application are related. The NIRB's determination in relation to this Exception Application in no way limits the Board's recommendations to the Minister regarding whether the related project under Review should be allowed to proceed, nor the potential issuance of a NIRB Project Certificate under Section 12.5.12 of the Nunavut Agreement and s. 111(1) of the NuPPAA following the final decision of the Minister of Crown-Indigenous Relations and Northern Affairs.

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<sup>2</sup> Excerpt from the September 13, 2011 correspondence of the Minister of Aboriginal Affairs and Northern Development referring the Meliadine Gold Project (NIRB File No. 11MN034) to the NIRB for public Review and noting that the Project Proposal included a request for the NIRB to consider the construction of an All-Weather Road as an exception from the requirement for Review under the Section 12.10.2 of the Nunavut Agreement

## NIRB ASSESSMENT AND DECISION

After a thorough assessment of all materials provided to the Board, in accordance with the primary objectives as described above, the determination of the Board pursuant to Section 12.10.2(b) of the Nunavut Agreement and s. 155(1) of the NuPPAA is to approve the exception of the following activities included in Agnico Eagle's Exception Application from the NIRB's ongoing Review of Agnico Eagle's "Whale Tail Pit Project" proposal (NIRB File No. 16MN056):

- Pre-delivery of material, fuel, and equipment;
- Construction of concrete pads, including options for supplies laydown area (the future site of the camp), and water treatment plant foundation; and
- Upgrade/widen Whale Tail Pit haul road from 6.5 m wide to 9.5 m plus bypasses to ensure the safe pre-delivery of material and equipment (such as Vault Pit 777 haul trucks).

This determination applies only to the exploration and/or development activities as described within the "Whale Tail Pit Project Type B Predevelopment Application" and is subject to the implementation of the Board's recommendations as set out in more detail in this report.

The Board has determined that the request to except the following activities from Review within Agnico Eagle's Exception Application should be rejected:

- Construction of temporary bridge crossing over the Mammoth Channel in March 2018;
- Construction of some service roads around the Whale Tail Pit site to undertake other predevelopment activities including:
  - Road between Quarry 2 and Waste Rock Storage Facility (WRSF);
  - Road between exploration area and new road between Quarry 2 and the WRSF;
  - Road and one culvert between exploration camp and proposed Nemo freshwater intake;
- Quarrying at Quarry 2 (for construction); and
- Construction of the waste rock berm.

As explained more fully in the text that follows, the basis for the Board's rejection of the exception request in respect of these activities is that, the Board, like several intervenors, did not find that the information supplied with the request established that the potential for impacts associated with these proposed excepted activities are sufficiently understood to proceed without further assessment. Further, the Board determined that the uncertainty created by current data gaps associated with the request in relation to these specific activities could not be addressed by the NIRB providing recommendations to minimize the potential for impacts. On this basis, the Board has determined that these specific activities should not be authorized to proceed in advance of the Board's consideration of the main project under Review, which is currently underway.

## PROCEDURAL HISTORY: BACKGROUND

The NIRB received a referral to screen Agnico Eagle's "Whale Tail Pit" project proposal from the Nunavut Planning Commission (NPC or Commission) on June 17, 2016, with an

accompanying positive conformity determination under the Keewatin Regional Land Use Plan. The NIRB subsequently circulated the reconsideration request for a period of public comment, inviting interested parties to provide feedback and advice to the Board with respect to the appropriateness of assessing the proposal as a reconsideration of the Meadowbank Gold Mine Project Certificate terms and conditions, or as a standalone screening assessment, and whether the provisions of the NuPPAA<sup>3</sup> were applicable to the proposal.

After considering submissions from parties and reviewing the project description, on July 21, 2016 the NIRB provided its determination that the proposed Whale Tail Pit project proposal had not been assessed as part of the original Meadowbank Gold Mine project, and due to its location outside of the original Meadowbank Gold Mine project footprint, would require a separate screening assessment under the NuPPAA.

Pursuant to Article 12, Section 12.4.4 of the Nunavut Agreement and s. 86 of the NuPPAA, the NIRB screened this project proposal and, on August 18, 2016, issued a Screening Decision Report with the determination that the proposed Project required further assessment best facilitated through a full environmental review under Article 12, Part 5 or 6 of the Nunavut Agreement and Part 3 of the NuPPAA.

Following receipt of the responsible Ministers' decision on September 2, 2016 supporting the NIRB's recommendation that a full environmental review be conducted, the NIRB commenced the review process on September 9, 2016 issuing the *Draft Scope* for review by parties.

By October 11, 2016 the NIRB was in receipt of comments on the *Draft Scope* of the assessment for the NIRB's Review of the project proposal. Following incorporation of the comments from parties and consideration of feedback received during scoping information sessions held by the NIRB in the communities of the Kivalliq region from October 17-27, 2016, the NIRB released the *Final Scope* on November 10, 2016.

On November 23 and 24, 2016 the NIRB convened a coordination workshop to further discuss project-specific coordination of the technical comment and review phases of the NIRB's assessment of the Project and the NWB's consideration of the water licence application and to develop an updated project-specific process map.

On November 25, 2016 the NIRB formally accepted the Environmental Impact Statement (EIS) submitted with the project proposal and commenced its technical review, inviting interested parties to submit Information Requests (IRs) directed to the Proponent and/or other parties involved in the assessment of the Whale Tail Pit Project proposal, as a means to identify information gaps within the EIS that needed to be addressed to facilitate development of technical review comments.

In joint correspondence issued by the NIRB and the NWB on January 27, 2017, the Boards invited interested persons to provide their technical review comments by March 28, 2017 in advance of a joint NIRB/NWB Technical Meeting and Pre-hearing Conference (PHC) that would be held in Baker Lake. The joint NIRB and NWB Technical Meeting was held in Baker Lake,

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<sup>3</sup> *Nunavut Planning and Project Assessment Act*, S.C. 2013, c. 14.

Nunavut on April 27-29, 2017, with the Community Roundtable and Pre-hearing Conference (PHC) also held in Baker Lake immediately following on May 1 and 2, 2017. During the PHC, Agnico Eagle was given the opportunity to identify any measures that could be taken to amend, simplify and/or streamline the Board's review of the existing Whale Tail Project proposal and the NWB's associated water licensing for the Project. Agnico Eagle did not avail themselves of the opportunity to advise the Board or parties present at the PHC that an Exception Application was being contemplated, or would be forthcoming. Consequently, the NIRB, NWB and parties did not discuss the Exception Application at the PHC and as such, the timing and process for considering the Exception Application overlapped with the Review of the whole Whale Tail Project proposal. Conducting the Board's consideration of the Exception Application in this way was less than ideal and created some concern and confusion for parties during the comment process for the Exception Application, as well as at the Review of the Project in its entirety.

In general, the Board notes that applications for exception from an ongoing review are ideally received in sufficient time to enable the Board and regulatory authorities to consider the exception application well in advance of, and separately from the review of the whole project.

Following the conclusion of the joint NIRB/NWB technical meetings and PHC, on June 8, 2017, the NIRB and NWB released a joint Pre-hearing Conference Decision Report to Agnico Eagle, providing direction on additional information required to support the final portion of the technical review and details on scheduling of coordinated NIRB and NWB public hearings for the Project.

#### PROCEDURAL HISTORY: CURRENT APPLICATION

On July 14, 2017 the NIRB received a submission from Agnico Eagle describing the "Whale Tail Pit Project Type B Predevelopment Application" (the Exception Application) associated with its Whale Tail Pit project proposal (NIRB File No.: 16MN056) for consideration pursuant to the Nunavut Agreement, Article 12, Section 12.10.2(b) and NuPPAA s. 155. These provisions allow for exceptions for approvals or licences to be granted for exploration or development activities related to a project under Review by the NIRB where, in the judgement of the NIRB, the activities can proceed independently of the Review. Agnico Eagle's "Whale Tail Pit Project Type B Predevelopment Application" submission also included an application to the Nunavut Water Board (NWB) for a Type "B" Water Licence as well as supporting materials and appendices.

On August 1, 2017 the NIRB requested that parties review and provide comments on Agnico Eagle's Exception Application package, with a request for submissions to be received on or before August 18, 2017. As any activities excepted under Section 12.10.2(b) of the Nunavut Agreement and s. 155(1) of the NuPPAA would be considered for approval separately from the NIRB's Review of Agnico Eagle's Whale Tail Pit Project proposal, parties were asked to provide comments and advice to the Board regarding the following issues:

- A determination of whether Parties agree/disagree with the conclusions in the application package regarding the alternatives assessment, environmental impacts, proposed mitigation, significance of impacts, and monitoring measures – and reasons to support the determination;

- A determination of whether or not conclusions in the application package are supported by the analysis – and reasons to support the determination;
- A determination of whether appropriate methodology was utilized in the application package to develop conclusions – and reasons to support the determination, along with any proposed alternative methodologies which may be more appropriate (if applicable);
- An assessment of the quality and presentation of the information in the application package; and
- Any comments regarding: the expressed need for and required timing of the proposed exceptions as presented; the permanence of proposed infrastructure; the reversibility of potential impacts; and the potential need for associated security bonding.

The NIRB also requested comments from interested parties regarding whether an approval of the proposed activities would have the effect or appearance of fettering any further or final decision by the Board or Minister relating to the larger mining and milling project under Review. Comments were received from the following parties on or before August 22, 2017:

- Kivalliq Inuit Association
- Government of Nunavut
- Environment and Climate Change Canada
- Fisheries and Oceans Canada
- Indigenous and Northern Affairs Canada
- Natural Resources Canada
- Transport Canada
- Baker Lake Hunters and Trappers Organization

On August 23, 2017, the NIRB provided the Proponent with an opportunity to file a response to parties' comment submission by August 28, 2017. On August 28, 2017, the Proponent requested an extension to submit a response to the comments, with the response provided by September 6, 2017. Within its response, Agnico Eagle noted that it believed the proposed predevelopment activities will not have a significant adverse environmental impact nor adverse ecosystemic effects.

As the response to comments received by the Proponent was not received in accordance with its previously-agreed upon timeline, the NIRB adjusted the Final Hearing agenda for the Whale Tail Pit Project proposal to allow time to address the predevelopment/site preparation application and facilitate discussion by parties to the Review. During the presentation at the Final Hearing on September 20, 2017 Agnico Eagle noted that all facilities and activities included within the exception application would be used to support continuing advanced exploration in the event the Whale Tail Pit project is not approved by the NIRB. Further, Agnico Eagle noted that the proposed predevelopment activities and the NIRB exception would help prepare the site for construction, reduce the risk for employment loss arising from the reduction in operations at the Meadowbank mine, and would not have significant adverse environmental and ecosystemic impacts.

During the Final Hearing for the Whale Tail Pit Project proposal, the Baker Lake Hunters and Trappers Organization submitted a letter on September 20, 2017 indicating that its previously-

stated position had changed and it now supported the Whale Tail Pit Project and its associated Exception Application.

#### PROPOSED ACTIVITIES AND SCOPE OF ASSESSMENT

Agnico Eagle's Exception Application package included a new Type B Water Licence application and supporting documents with the Nunavut Water Board (NWB).

The scope of Agnico Eagle's application included what Agnico Eagle described as proposed predevelopment/site preparation activities, which would occur between November 2017 and June 2018. Agnico Eagle also noted within the application that no mining activities were included in the application, and while some of the proposed infrastructure could be characterized as 'permanent', the proposed facilities and activities would be used to support exploration at Whale Tail Pit should the NIRB recommend and the Minister agree that the full Whale Tail Pit Project proposal should not be allowed to proceed to permitting at this time. The scope of activities proposed by Agnico Eagle includes:

- Pre-delivery of material, fuel, and equipment;
- Construction of concrete pads, including options for supplies laydown area (the future site of the camp), and water treatment plant foundation;
- Construction of some service roads around the Whale Tail Pit site to undertake other predevelopment activities including:
  - The temporary bridge crossing over the Mammoth Channel in March 2018,
  - Road between Quarry 2 and Waste Rock Storage Facility (WRSF),
  - Road and one culvert between exploration camp and proposed Nemo freshwater intake,
  - Road between exploration area and new road between Quarry 2 and the WRSF,
  - Upgrade/widen Whale Tail Pit haul road from 6.5 m wide to 9.5 m plus bypasses to ensure the safe pre-delivery of material and equipment (such as Vault Pit 777 haul trucks);
- Quarrying at Quarry 2 (for construction); and
- Construction of the waste rock berm.

The proposed activities were justified by Agnico Eagle as important steps towards minimizing any unforeseen delays in the development of the Whale Tail Pit Project. Agnico Eagle has indicated that the timing of the Exception Application and potential issuance of the Type B Water Licence by the NWB would allow the Proponent to commence the desired predevelopment as early as November 2017, which is approximately the time when the NIRB's Final Hearing Report and recommendations are expected to be released for the Whale Tail Pit Project. By implementing a predevelopment permitting approach, Agnico Eagle is hoping to make substantial scheduling gains considering the short construction season in the Arctic.

#### SUMMARY OF COMMENTS RECEIVED

The following provides a *summary* of the comments and concerns received during the public commenting periods for this file. Please refer to [Appendix A](#) of this determination to review parties' comment submissions in their entirety.



### **Kivalliq Inuit Association (KIA)**

- Noted support for Agnico Eagle's request for a NIRB exception in relation to the proposed predevelopment activities, provided the activities are included in the work plan to be approved by KIA pursuant to a production lease for the Whale Tail Pit Project.
- Indicated that the scale of the proposed activities would be small and would not be significant steps towards the development of the Whale Tail Pit Project.
- Noted that even though some of the proposed infrastructure could be considered permanent, Agnico Eagle provided for alternative uses of these structures and materials for exploration should the full Whale Tail Pit Project not be allowed to proceed.
- Noted KIA holds the security deposit under the commercial lease.
- Noted that proceeding with the proposed work would help to address the project gap in Inuit employment between the completion of active mining at the Meadowbank site and the projected issuance of a potential Project Certificate to the Whale Tail Pit Project subject to the NIRB's positive recommendation and Ministerial approval.

### **Government of Nunavut (GN)**

- Noted agreement with the Proponent in that the activities of the proposed construction activities could likely be mitigated. However noted concerns with respect Agnico Eagle's proposed mitigation and monitoring of impacts associated with the operation of the infrastructure and the relationship with the full Whale Tail Pit Project.
- Noted it is unclear how some of the listed predevelopment activities qualify as facilitating the limited transport and storage of equipment and materials related to a project undergoing Review.
- Additional information requested from the Proponent for review regarding:
  - The list of materials and equipment the Proponent seeks to transport for the predevelopment phase; and
  - Identifying those items that could not be moved on the existing 6.5 metres (m) wide road with justification about the importance of having these items moved during the predevelopment phase.
- GN noted the proposed infrastructure established through this application would be permanent and it is unclear if the infrastructure is an essential need for either predevelopment transport of materials or for existing exploration activities. The GN requested additional information supporting the need for the proposed infrastructure.
- Noted that widening of the haul road should be timed to occur outside the fall and spring migratory periods for caribou; construction should not occur before December 15<sup>th</sup> and after April 1<sup>st</sup>.
- Noted that there are currently outstanding concerns regarding the Whale Tail Project's potential impacts on wildlife and the ability to effectively monitor and mitigate those impacts. These concerns extend to the proposed pre-development activities as they would rely on the same plans as the whole Whale Tail Project proposal, in particular the expansion and use of the haul road. The GN indicated that the adoption of the following may resolve the GN's concerns:
  - If a decision regarding the Exception Application is rendered when, or shortly after, the NIRB makes its recommendation to the Minister with respect to the Whale Tail Project, and;

- The specific requirements for wildlife monitoring and mitigation, which could be applied as conditions in a Project Certificate and within the Project's Terrestrial Ecosystem Management Plan applicable to the entire Whale Tail Project if it is approved to proceed, are also applied fully to the pre-development activities.
- Further GN noted that it is assumed that the review of the pre-development application would be significantly, and necessarily, informed/enhanced by the outcome of the Final Hearing with respect to standards of monitoring and mitigation.
- Provided recommendations for activities not to be conducted within a 50 m buffer zone of any archaeological sites.

### **Environment and Climate Change Canada (ECCC)**

- Noted its understanding that the Proponent would implement the information provided and all commitments during the environmental assessment (EA) process that are applicable to the predevelopment activities.
- Noted discrepancies in the predevelopment activities schedule outlined in the main application supporting document and recommended the Proponent provide clarification with respect to the scheduling of the proposed works including the timing and duration of these activities.
- Noted that there was a lack of information on any dustfall monitoring along the haul road should the expansion be completed and in use prior to the approval of the Whale Tail Pit Project. Recommended information be provided on dustfall monitoring that would be conducted during the predevelopment activities and whether monitoring would follow the Proponent's response to ECCC's comment on this topic for the proposed Whale Tail Pit Project.
- Reminded the Proponent of ECCC's comments provided on migratory birds during the EA process and recommended the Proponent take into account ECCC's guidelines on migratory birds so that all predevelopment activities are carried out in a manner that protects migratory birds and their nests.
- Reminded Proponent of the ECCC comments provided on the shipping impacts to migratory birds during the EA process and provided several recommendations to mitigate impacts to migratory birds and wildlife.
- Reminded Proponent of the ECCC comments provided on species at risk potentially found in the area during the EA process and recommended that the primary mitigation measure should be avoidance if species at risk are encountered.
- Noted a lack of information on the proposed monitoring to be conducted for the freshwater environment specific to the predevelopment works. Recommended additional information be provided on the sampling protocols and the sampling parameters to be monitored.

### **Fisheries and Oceans Canada (DFO)**

- Noted information provided within the conceptual engineering drawings of the temporary bridge crossing across the Mammoth Channel Crossing was not clear on the footprint of the bridge abutments below the high water mark. Recommended the Proponent provide the width of the proposed temporary bridge crossing, and the footprint of the abutments and the bank armouring that will occur below the high water mark.

- Requested Agnico Eagle provide detailed, site-specific engineer drawings for each of the proposed culverts and watercourse crossings (including Culvert 184 which is proposed for the predevelopment activities). Information could be provided as part of the regulatory phase.
- Noted that the planned widening of the haul road from the single-lane access road would include the extension of culverts to allow for adequate drainage. However, it is unclear whether the existing culverts (identified as culvert 182 and 183) would be extended to accommodate the wider road. Requested clarification if the culverts would be replaced.
- Noted that the distance between the Whale Tail Lake and Quarry 2 is approximately 31 m and blasting at the Quarry site has the potential to cause serious harm to fish. Recommended Agnico Eagle adhere to the most recent blasting advice.
- Reminded the Proponent that it is their responsibility to ensure it avoids causing *serious harm* to fish in compliance with the *Fisheries Act*, and that it meets the requirements under the *Species at Risk Act* as it may apply to the project.

#### **Indigenous and Northern Affairs Canada (INAC)**

- Noted that the proposed site preparation activities fall within the larger Whale Tail Pit Project that is currently undergoing review.
- Did not identify any outstanding issues following review of the application in areas within its mandate. INAC further noted that it did not identify any information gaps or uncertainties that would invalidate the key conclusions reached by the Proponent.
- Noted the methodology used to develop the conclusions in the application package was appropriate.
- Detailed information on the pre-delivery of material was absent from the proposal.
- Work schedule for the predevelopment activities were not clear within the proposal and required clarification.
- Noted all proposed infrastructure would need to be reclaimed.
- Indicated that given the extreme physical/ecological conditions, the potential impacts on vegetation will most likely be irreversible following the pre-construction activities.
- Considered Agnico Eagle's request to incorporate the security required under the Type B Licence into the Type A Water Licence (if issued) to be reasonable.
- Took no position on the issue of whether approval of the proposed activities would have the effect or appearance of fettering any further or final decision by the NIRB relating to the larger Whale Tail Pit Project Proposal currently under review.

#### **Natural Resources Canada (NRCan)**

- NRCan noted it has participated in the review of the proposed predevelopment activities outlined in the application for exceptions from the ongoing NIRB review of the Whale Tail Pit Project as a department with expertise in permafrost, terrain sensitivity and groundwater.
- Noted that impacts on permafrost and terrain from the widening of the exploration access road to a haul road could be minimized by following the terms and conditions and mitigation measures of the existing licence, the environmental protection and management plans.

- Noted the construction of the waste rock berm from Quarry 2 should not have any adverse effect on ground thermal conditions and temperatures as the base of the waste rock is expected to be below 0°C.
- Noted the impacts of the predevelopment activities on groundwater can be minimized by following the terms and conditions and the mitigation measures in the existing approved licences and monitoring and management plans as proposed in the Whale Tail Application.

#### **Transport Canada (TC)**

- Noted that Agnico Eagle would not require any approvals or permits for the Exception Application based on the current scope of the proposal. However, indicated that the responsibility to assess and address potential impacts to navigational access and safety resulting from these works rests with the Proponent.

#### **Baker Lake Hunters and Trappers Organization (BLHTO)**

- Recommended Agnico Eagle's request be denied as the BLHTO only supports development that is properly reviewed in accordance with the Nunavut Agreement.
- Concerned that by allowing the construction before the NIRB process is complete would undermine the Nunavut Agreement which would set a precedent for future proposals.
- Subsequently (at the Final Hearing) provided a letter in support of the Exception Application.

### **SUMMARY OF PROPONENT'S RESPONSE TO COMMENTS RECEIVED FROM PARTIES**

On August 23, 2017, the NIRB provided the Proponent with an opportunity to file a response to parties' comment submissions. The following is a summary of the Proponent's responses to concerns as received on September 6, 2017. Please refer to [Appendix B](#) to review Agnico Eagle's response to comments in its entirety.

- Noted agreement that predevelopment activities would bridge the gap in Inuit employment.
- Indicated that Agnico Eagle met with the BLHTO in order to better understand their concerns.
- In response to concern on schedule inconsistencies, Agnico Eagle provided an updated table that summarized the schedule for the predevelopment activities.
- In response to the request for additional information on the materials to be transported using the expanded road and the need for the expanded road, the Proponent noted that, for safety, the quarry and site preparation equipment (such as loaders and 777 Haul Trucks) would be shipped from Meadowbank using the expanded haul road and provided a summary of the equipment to be transported.
- In response to additional information on dustfall monitoring, Agnico Eagle indicated that it would apply the Whale Tail Pit Project's Terrestrial Ecosystem Management Plan (TEMP) monitoring and mitigation to the predevelopment activities.
- In response to concerns with respect to impacts to migratory birds, Agnico Eagle noted that it would adhere to ECCC's guidelines for the protection of migratory birds. Further, Agnico Eagle noted that it would provide the necessary information to the shipping

contractor to ensure contractors follow the standardized protocols to protect marine mammals and seabirds.

- Agnico Eagle noted that it agreed with the recommendation related to any species at risk that might be encountered or affected by predevelopment activities.
- In response to concerns with respect wildlife monitoring and mitigation, the Proponent noted that it would apply the Whale Tail Pit Project's TEMP monitoring and mitigation to the predevelopment activities.
- In response to concerns to potential impacts to the freshwater environment, Agnico Eagle noted that the construction of the bridge at the Mammoth channel would be constructed during the winter preventing total suspended solids and turbidity from entering the stream. Further, Agnico Eagle agreed to conduct monitoring as per the NWB Type B licencing requirements for seepage and erosion inspections.
- In response to the request for additional information for the need of the proposed infrastructure, Agnico Eagle agreed that the predevelopment application inherently is a request to begin preparing the site for construction of the Whale Tail Pit Project through proposed activities such as road preparation, pad construction for pre-delivery and quarry development. However, Agnico Eagle indicated that the predevelopment infrastructure would be used to support continuing advanced exploration to the north of Whale Tail Lake and south of Mammoth Lake if the Whale Tail Pit Project was not approved.
- Agnico Eagle agreed to adhere to the buffer zone for proposed activities in the vicinity of archaeological sites and adhere to the Archaeological management plan for the Whale Tail Pit Project.
- Agnico Eagle provided further drawings with respect to the proposed temporary bridge crossing in response to a request for additional information by DFO. Further, Agnico Eagle noted that it would continue to work with DFO during the regulatory phase of the project.
- In response to concerns that blasting would occur approximately 31 m from waterbodies, Agnico Eagle indicated that it would adhere to DFO's guidance for blasting.
- Agnico Eagle further indicated that it would adhere to the terms and conditions and the mitigation measures in the existing approved licences and monitoring and management plans to minimize impacts from the pre-development activities.

#### ASSESSMENT OF THE APPLICATION

After a thorough assessment of all materials provided to the NIRB for this project proposal, it is the opinion of the Board that not all of the proposed activities included in the Exception Application should be allowed to proceed in advance of the conclusion of the Review of the full Whale Tail Pit Project proposal. This is owing to the permanence of some of the proposed structures described within Agnico Eagle's "Whale Tail Pit Project Type B Predevelopment Application" and the Proponent not having provided sufficient information on alternatives to the project should the Whale Tail Pit Project proposal not be approved to proceed. In the Board's view, the proposed activities included under the "Whale Tail Pit Project Type B Predevelopment Application" proposal require additional assessment so that the potential for impacts associated with the activities is more thoroughly understood before the activities are permitted to proceed. As a result, the following activities will continue to be assessed through the Review of the Whale Tail Pit Project under Article 12 of the Nunavut Agreement and Part 3 of the NuPPAA:

- Construction of temporary bridge crossing over the Mammoth Channel in March 2018;
- Construction of some service roads around the Whale Tail Pit site to undertake other predevelopment activities including:
  - Road between Quarry 2 and Waste Rock Storage Facility (WRSF);
  - Road between exploration area and new road between Quarry 2 and the WRSF;
  - Road and one culvert between exploration camp and proposed Nemo freshwater intake;
- Quarrying at Quarry 2 (for construction); and
- Construction of the waste rock berm.

The Board further notes that, in the Board's opinion, the following proposed activities in Agnico Eagle's "Whale Tail Pit Project Type B Predevelopment Application" should not cause significant adverse impacts or public concern if allowed to proceed without being subject to the broader Review of the Whale Tail Pit Project – provided the NIRB's project-specific terms and conditions are implemented. Therefore, the Board is granting Agnico Eagle's request to except from further review the following activities:

- Pre-delivery of material, fuel, and equipment;
- Construction of concrete pads, including options for supplies laydown area (the future site of the camp), and water treatment plant foundation; and
- Upgrade/widen Whale Tail Pit haul road from 6.5 m wide to 9.5 m plus bypasses to ensure the safe pre-delivery of material and equipment (such as Vault Pit 777 haul trucks).

Provided that Agnico Eagle meet any applicable terms and conditions outlined in this Determination Report, these three listed activities ("the Exception Activities") can now proceed to the permitting stage. It should also be noted that the NIRB expects Agnico Eagle to meet its commitments to monitor and mitigate any impacts associated with the proposed predevelopment activities in accordance with the monitoring and management plans filed as part of the Review of the Whale Tail Pit Project.

Activities related to the ongoing exploration and research of the "Amaruq Exploration – Portal/Ramp, Quarry and Advanced Underground Exploration and Bulk Sample" (NIRB File No.: 11EN010) may continue to be permitted to proceed.

The NIRB's assessment included consideration of the following general items:

### **1. Rationale, objective, implications of the proposed activities on the feasibility of the related project undergoing Review**

The Proponent provided its rationale and justification for the predevelopment activities work to enable timely and efficient construction and operation of the Whale Tail Pit Project if approved. Agnico Eagle noted that these activities could yield substantial scheduling gains, conserving the short construction season in the Arctic. Agnico Eagle noted that the predevelopment work proposed is similar in approach to other works previously approved at the Meadowbank and the Meliadine mines. The Proposed activities would include pad construction for the camp, initiation of concrete foundations, construction of various service roads to undertake

predevelopment activities, upgrading and widening of the Whale Tail Pit haul road (i.e. upgrading of approved exploration access road) and construction of the waste rock berm. Quarrying at Quarry 2 would also be required to support some of these activities.

Environment and Climate Change Canada (ECCC) noted that if the Exception Application is granted, Agnico Eagle should be required to provide all information and meet all commitments provided during the environmental assessment (EA) process regardless of whether or not the Whale Tail Pit Project proceeds. The Government of Nunavut (GN) noted concern with the relationship between the predevelopment activities and the ongoing review of the broader Whale Tail Pit Project proposal. The GN further noted that it was unclear whether the establishment of the infrastructure as proposed is an essential need for either predevelopment transport of materials or for existing exploration activities. Agnico Eagle noted that it agreed with the GN in that the predevelopment application inherently is a request to begin preparing the site for construction of the Whale Tail Pit Project through proposed activities such as road preparation, pad construction for pre-delivery and quarry development. No additional justification for the infrastructure was provided other than to note that the infrastructure would be used to support continuing advanced exploration to the north of Whale Tail Lake and south of Mammoth Lake.

Indigenous and Northern Affairs Canada (INAC) noted that the proposed site preparation activities fall within the larger Whale Tail Pit Project that is currently undergoing a Review by the NIRB. INAC further noted that the work schedule for the predevelopment activities requires clarification before INAC is able to adequately assess the need for, and required timing of the proposed exceptions. Fisheries and Oceans Canada (DFO) noted gaps in the information provided but indicated that this information could be provided during the regulatory phase. The GN indicated that, in its view, concerns associated with the pre-development application may be largely resolved by issuing the NIRB's determination regarding the Exception Application shortly after the NIRB releases its Final Hearing Report and recommendations to the Minister in respect of the whole Whale Tail Pit Project proposal. The GN expressed the view that this would ensure that the specific requirements for wildlife monitoring and mitigation for the Whale Tail Pit Project would be applied fully to the pre-development activities.

Although the Board appreciates the GN's comments that Agnico Eagle should ensure that any Exception Activities are conducted in a manner that implements the same standard of wildlife monitoring and mitigation as the entire Whale Tail Pit Project proposal, the NIRB does not agree that the only mechanism for ensuring this occurs is to delay the Board's release of this Exception Application Determination until after the Board has released the Final Hearing Report and Recommendations to the Minister. Rather, the Board has considered the Exception Application both within the scope of the activities included in the Exception Application, but also in the context of the approaches proposed to impact monitoring and mitigation in the broader Review as well. In the Board's view, the recommended terms and conditions for the Exception Activities provided in this Determination Report will ensure that the Exception Activities will not have significant adverse effects, regardless of whether or not the Board ultimately recommends, and the Minister agrees, that the Whale Tail Pit Project proposal be allowed to proceed.

The Kivalliq Inuit Association noted support for the predevelopment activities, while the Baker Lake Hunters and Trappers Organization initially recommended the NIRB deny the request but provided a revised letter on September 20, 2017<sup>4</sup> citing support for both the Whale Tail Pit Project and the predevelopment activities.

Agnico Eagle indicated in response to parties' comments that it will adhere to the monitoring and mitigation measures as noted within the Whale Tail Pit Project's Terrestrial Ecosystem Management Plan (TEMP) and will update relevant Whale Tail Pit management plans as requested by parties. Agnico Eagle also indicated in the application that it would continue to implement an environmental management system consistent with operations at the Meadowbank Mine. The Proponent further noted its position that specific concerns such as dust, noise, traffic, erosion, transportation of dangerous goods, waste management, sociological, wildlife protection, etc. have been addressed through the management plans it had prepared for the Whale Tail Pit Project.

Given the fairly advanced stage of the Review of the Whale Tail Pit Project, with the Final Hearing having been completed on September 22, 2017, the Board questions whether Agnico Eagle has established that all of the exception activities included in the Exception Application truly need to be excepted from the Review in order to support timely and efficient construction and operation of the whole Whale Tail Pit Project, if ultimately approved to proceed. Further, the Board shares the concerns expressed by several Intervenor that insufficient information in the application package meant that the parties, and ultimately, the NIRB, could not adequately assess the potential for impacts posed by these activities. The Board was particularly concerned that there was insufficient information regarding potential for effects on terrestrial wildlife.

Consequently, the Board did not have sufficient information to conclude that all of the activities included in the Exception Application would represent low potential for impacts. As a result, the Board did not approve all of the exception activities proceeding to licensing without any further assessment by the NIRB of the potential for impacts. Rather, the NIRB has determined that scope of the activities excepted from further Review should be limited to those activities that are listed in the reduced scope set out above, as well as activities that may already have been screened by the NIRB and could be exempt from further assessment under Article 12, Section 12.4.3. Activities Agnico Eagle included in the Exception Application that the Board has not approved as Exception Activities continue to be included in the Board's ongoing Review of the related project under Article 12 of the Nunavut Agreement and Part 3 of the NuPPAA and will be addressed in the NIRB's upcoming Final Hearing Report and Recommendations.

With respect to the need for the project in terms of bridging the potential employment gap between conclusion of mining operations at the existing Meadowbank mine site and the potential commencement of development at the Whale Tail Pit, the Board notes that the NIRB's Review has been streamlined (e.g. no project-specific Guidelines being set, receipt of the Environmental Impact Statement as final), and considerable coordination with the Nunavut Water Board's water licensing process has been implemented with the recognition of these critical timing issues. Consequently, the Board has considered the issue of the potential for a gap in employment in the

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<sup>4</sup> Baker Lake HTO Letter to Elizabeth Copland, NIRB and Carolyn Bennett, INAC Re: *Proposed Whale Tail Mine*, September 20, 2017.



context of an Exception Application being submitted so close to the last stages of the NIRB's Review and NWB's coordinated licensing process.

## **2. The permanence of proposed structures**

In its Exception Application to the NIRB and the NWB, Agnico Eagle indicated that, even though the scale of the proposed activities would be small, some of the proposed infrastructure could be characterized as "permanent". The construction of the laydown area, exploration access road expansion, service roads and the waste rock berm would all be permanent and used throughout the Project lifecycle. The quarrying activities at Quarry 2 are considered semi-permanent and would be decommissioned at the same time as the Amaruq property. The bridge across Mammoth watercourse is considered temporary by Agnico Eagle and would be constructed to facilitate ongoing exploration activities and predevelopment activities. No information was provided by Agnico Eagle regarding when the bridge would be decommissioned or the time-period it expected the bridge to be used for. Agnico Eagle further noted that, should the site close, overburden and waste rock material would be stockpiled within the footprint of the quarry, left in place or stored on the north side of the waste rock berm. A closure spillway would be constructed in the berm to avoid ponding of water and overflow would be directed into Mammoth Lake. The temporary bridge would be dismantled and all disturbed site areas including the site roads would be re-graded. Quarry 2 would be allowed to flood naturally with overflow to be directed to Whale Tail Lake.

The GN expressed concerns that the infrastructure to be established would be permanent and, as noted previously, the GN was unclear if the infrastructure is an essential need for either predevelopment transport of materials or for existing exploration activities. Agnico Eagle noted that it agreed with the GN in that the predevelopment application inherently is a request to begin preparing the site for construction of the Whale Tail Pit Project through proposed activities such as road preparation, pad construction for pre-delivery and quarry development. No additional justification for the infrastructure was provided other than to note that the infrastructure would be used to support continuing advanced exploration to the north of Whale Tail Lake and south of Mammoth Lake. INAC noted that all proposed infrastructure would need to be reclaimed and noted that the potential impacts on vegetation from some of the pre-construction activities would most likely be irreversible. The KIA also confirmed that some of the proposed infrastructure could be considered permanent but that Agnico Eagle indicated potential alternatives for the use of the structures and materials should the Whale Tail Pit project not proceed.

Given the permanence of much of the infrastructure proposed to be developed under the full scope of the excepted activities, coupled with minimal information having been supplied regarding the proposed alternate uses of the infrastructure, the Board has concerns that allowing these activities to proceed without further assessment could result in permanent infrastructure being located and developed without the benefit of a full and integrated understanding of the site conditions and required mitigations. If these activities were allowed to proceed in advance of the conclusion of the Review of the related project, there is a risk that the Board will be limited to managing impacts through mitigation measures designed after the fact rather than by including more fulsome consideration of impact mitigation requirements in advance of Agnico Eagle making final infrastructure siting and development decisions

### **3. Alternative uses of proposed structures or materials if the related project under Review was not to be approved**

Agnico Eagle noted that the proposed infrastructure would continue to support on-going exploration in the area should the Whale Tail Pit Project not be allowed to proceed. No evidence was provided by Agnico Eagle on the need for this infrastructure to facilitate the ongoing exploration activities within the area, while further clarification provided in its response noted that predevelopment infrastructure would be used to support continuing advanced exploration to the north of Whale Tail Lake and south of Mammoth Lake.

The Board therefore recognizes that much of the proposed predevelopment infrastructure could be repurposed for continued exploration efforts in the area; however it is not believed to be necessary or required to facilitate continued exploration efforts. For example, infrastructure such as the waste rock berm do not appear to be required for on-going exploration or even predevelopment activities are instead required solely in support of the development of the Whale Tail Pit Project as a whole. Also as noted above given the permanence of much of the infrastructure proposed to be developed under the scope of the excepted activities, coupled with information gaps on the alternate use of the infrastructure, the Board has concerns that allowing all of these activities to proceed without further assessment could result in permanent infrastructure being located and developed without the benefit of a full and integrated understanding of the site conditions and required mitigations.

### **4. Significance of potential ecosystemic and socio-economic impacts**

The proposed mine pit development for the Whale Tail Pit Project would occur within a geographic area of approximately 77 square kilometres (km<sup>2</sup>) for the Whale Tail Pit area and approximately 31 km<sup>2</sup> for the haul road area. The proposed Whale Tail Pit and associated infrastructure would be located within the Amaruq property that is located on Inuit Owned Lands. Agnico Eagle's Amaruq Mineral Leases cover approximately 408 square kilometres (km<sup>2</sup>) total area, and within this area of leases, exploration related to the Amaruq Exploration project has been undertaken for several years. The Amaruq Exploration camp is focused within approximately three (3) km<sup>2</sup>, in addition to the footprint of the Meadowbank Gold Mine Site Area to Amaruq exploration access road. The proposed activities would take place within the habitats of many local far-ranging wildlife species, such as the Ahiak, Lorillard, Wager Bay, and Qamanirjuaq caribou herds; muskox; wolves, and migratory birds.

#### **a. Activities NOT Excepted**

More specifically, the Board has concluded that there are several potentially significant ecosystemic and socio-economic impacts associated with the specific activities that were not excepted from the ongoing Whale Tail Pit Project Review by the Board.

#### **Ecosystem, wildlife habitat and Inuit harvesting activities:**

- Potential impacts to surface quality and fish and fish habitat from the development of the temporary bridge across Mammoth Channel, development of roads to Quarry 2 and the WRSF, the construction of the waste rock berm and the quarrying activities. The Proponent has provided a Fisheries Assessment of the proposed Mammoth Channel Crossing and an addendum to the Environmental Project and Monitoring Plans.

- Potential impacts to vegetation, soil and permafrost from the development of the roads to Quarry 2 and the WRSF, the construction of the waste rock berm and the quarrying activities, storage and transfer of fuel as well as dust from the road, and quarrying activities. The Proponent has provided an addendum to the Quarry Management Plan.
- Potential adverse impacts to caribou (Ahiak, Lorillard, Wager Bay, and Qamanirjuaq herds), terrestrial wildlife migratory and non-migratory birds and their habitats from dust and noise disturbances associated with the development of the proposed infrastructure, development of Quarry 2 and transportation of personnel and equipment to the proposed development areas for construction and operation purposes. The Proponent has noted that it will adhere to the Whale Tail Pit Project's Terrestrial Ecosystem Management Plan (TEMP) for the monitoring and mitigation that would be conducted for predevelopment activities. However, as noted by parties, outstanding concerns remain with the Whale Tail Pit Project's potential impacts on wildlife and Agnico Eagle's ability to monitor and mitigate those impacts which in turn extends to the predevelopment activities.

**Socio-economic effects on northerners:**

- Potential adverse impacts to historical, cultural, and archaeological sites from the development of the predevelopment infrastructure not excepted from Review by the Board. The Proponent provided a summary of the archaeological sites that could be encountered within the local study area for the Whale Tail Pit Project but did not specifically note within the Exception Application whether any archaeological sites would be impacted from the predevelopment activities. However, the Proponent did note that during the archaeological assessment of the area around Amaruq camp, no concerns were raised including for Quarry 2.
- Potential positive impact as Proponent has noted the predevelopment activities will extend employment opportunities at the Meadowbank Mine.

**Technological innovations for which the effects are unknown:**

- Not a concern for this application.

As noted under the discussion of Item 1 above, the Board did not find that it had sufficient information to conclude that all the activities included in the Exception Application could truly be said to represent low potential for impacts coupled with the lack of information on the alternative use of the infrastructure for exploration activities. This hampered the Board's confidence that the activities should be allowed to proceed without additional assessment.

**b. Activities Excepted**

For the Exception Activities set out above, the Board has determined that these activities represent low potential for impacts and may be excepted from Review pursuant to Section 12.10.2(b) of the Nunavut Agreement and s. 155(1) of the NuPPAA. In arriving at the conclusion that these activities can be excepted from further review, the NIRB has considered the following issues and determined that the Exception Activities will not result in significant impacts if the recommended mitigation measures are applied. Also as part of the Board's

assessment, the NIRB has proposed terms and conditions that would mitigate the potential for adverse impacts to result.

**Administrative Conditions:**

- To encourage compliance with applicable regulatory requirements and assist the Board and responsible authorities with compliance and effects monitoring for project activities, the Board has previously recommended terms and conditions 1 through 4, 67 and 70 for the Amaruq project (NIRB File 11EN010) which continue to apply to the current project proposal and are listed below. The Board is also recommending term and condition A to ensure complete reference to applicable regulatory requirements.

**Ecosystem, wildlife habitat and Inuit harvesting activities:**

- Potential negative impacts to terrestrial wildlife (including caribou), wildlife habitat, and migratory and non-migratory birds due to additional traffic, associated vehicle noise, the upgrading/widening of the Whale Tail Pit haul road and the construction of laydown areas. The Proponent has committed to apply the Whale Tail Pit Project's TEMP monitoring and mitigation for predevelopment activities. Appropriate terms and conditions have also been previously recommended for the development of the Whale Tail Pit single-lane road and the development of the exploration site at Amaruq (see term and conditions 7, 10, 16 through 19, 24 through 27, 66, 68, 69 and 73) which continue to apply to the approved excepted activities.
- Potential negative impacts to land, vegetation health, soil quality, surface water quality and quantity, and fish and fish habitat from pre-delivery of material, fuel and equipment, upgrade/widening of the Whale Tail Pit haul road and the construction of laydown areas. The Proponent has provided an addendum to the Environmental Project and Monitoring Plans and will require a water licence from the Nunavut Water Board (see Regulatory Requirements section). Appropriate terms and conditions have also been previously recommended (see term and condition 8, 9, 12, 14, 15, 39, 41, 43, 49, 57 through 62, 66, 68, 69, 71, 72, 74 and 75) which continue to apply to the approved excepted activities.
- Potential negative impacts to land, vegetation health, soil quality, surface water quality and quantity, and fish and fish habitat from storage and use of fuel, upgrading/widening of the Whale Tail Pit haul road and the construction of laydown areas and associated dust from transportation activities. Further, the potential negative impacts are also issues relevant for consideration by the Nunavut Water Board. In addition, previous terms and conditions have been recommended to mitigate the potential adverse impacts to waterbodies in addition to ensuring no wastes enter surrounding lakes or waterbodies (see issuing terms and conditions 8, 9, 12, 14, 15, 39, 41, 43, 49, 57 through 62, 66, 68, 69, 71, 72, 74 and 75) which continue to apply to the approved excepted activities.
- Potential negative impact due to project activities interfering with traditional land use as Proponent is working in an area that can be accessed for traditional land use activities. The Board previously issued term and condition 16 through 19, 23 through 27, and 73 to minimize potential interference with the movement of birds and

wildlife. Further, the Board previously recommended terms and conditions 51 and 76 to mitigate impacts to public and traditional land use activities from project activities and to ensure that the affected communities and organizations are informed about the project proposal and term and condition 77 to ensure that project activities do not interfere with Inuit wildlife harvesting or traditional land use activities in the area. These terms and conditions continue to apply to the approved excepted activities.

**Socio-economic effects on northerners:**

- Potential adverse impacts to historical, cultural, and archaeological sites from the upgrade/widening of the Whale Tail Pit haul road and the construction of laydown areas. The Proponent provided a summary of the archaeological sites that could be encountered within the local study area for the Whale Tail Pit Project but did not specifically note within the Exception Application whether any archaeological sites would be impacted from the predevelopment activities. However, it is noted that the potential for these effects based on the original single-lane road were already assessed previously under NIRB File No. 11EN010, and the widening of the single-lane road to the haul road are unlikely to increase the potential for these effects. The Board previously issued term and condition 51 to address adverse impacts to historical, cultural, and archaeological sites, and term and condition 76 to ensure that available Inuit Qaujimaningit can inform project activities, and reduce the potential for negative impacts occurring to any additional historical site. Both these terms and conditions continue to apply to the activities excepted from the Review of the Whale Tail Pit Project.
- Potential positive impact as Proponent has noted the predevelopment activities will extend employment opportunities at the Meadowbank Mine.

**Technological innovations for which the effects are unknown:**

- Not a concern for this application.

In considering the above factors combined with the implementation of appropriate mitigation measures required to limit the potential adverse ecosystemic and socio-economic effects of the activities, works and undertakings proposed in the Exception Application, the Board has concluded that is appropriate to except the specific activities as listed above from the review of the Whale Tail Pit Project.

The Board has appended terms and conditions to this decision that describe the mitigation measures that must be implemented by the Proponent in order to carry out the activities excepted from the Review of the Whale Tail Pit Project. Should the Board's review of the Whale Tail Pit Project proposal result in the proposed project being approved to proceed and the NIRB's issuance of a Project Certificate for the Whale Tail Pit Project, the activities, works and undertakings included within the Exception Application that are integrally linked to the Whale Tail Pit Project could become subject to additional terms and conditions as may be considered appropriate or necessary by the Board at that time.

## **5. Public concern**

The Board notes no significant public concern was expressed during the public commenting period for this file.

## **6. Posting of security/performance bonds**

The Board notes that Agnico Eagle has estimated its reclamation liability for the proposed predevelopment works to be \$714,265. However, as this amount was based on the assumption that all activities provided in the scope of the Exception Application would be permitted to proceed to licensing, the Board recognizes that Agnico Eagle may need to revisit this estimate during the subsequent licensing and permitting phases to reflect the scope of the Exception Activities as authorized to proceed and set out by the NIRB in this Determination Report.

### **RECOMMENDED PROJECT-SPECIFIC TERMS AND CONDITIONS**

The Board is recommending that the following or similar project-specific terms and conditions be imposed upon the Proponent by authorizing agencies in accordance with their jurisdiction under the applicable relevant legislation. However, it is the NIRB's expectation that the Proponent will abide by the monitoring and management plans as submitted in support of the Review of the Whale Tail Pit Project for the predevelopment activities now approved to proceed.

- A. The Proponent shall operate in accordance with all commitments stated in correspondence provided to the Nunavut Planning Commission (Application to Determine Conformity, December 22, 2016), and the NIRB (Online Application Form, January 4, 2017 and Proponent's Response to Comments, February 9, 2017).

### **EXISTING PROJECT-SPECIFIC TERMS AND CONDITIONS**

The Board recognizes that the activities excepted from the Review of the Project may also be carried out in association with Agnico Eagle's Amaruq Exploration Program, NIRB File No. 11EN010 or with the main Whale Tail Pit Project proposal, should it be approved to proceed. Specifically, the NIRB highlights that the following terms and conditions which were previously issued by the NIRB in its April 21, 2011, February 10, 2015, November 4, 2015, October 5, 2016, and March 7, 2017 Screening Decision Report(s) for File No. 11EN010 are applicable to the excepted activities.

#### **Terms and Conditions issued April 21, 2011:**

##### **General**

1. Agnico-Eagle Mines Ltd. (the Proponent) shall maintain a copy of the Project Terms and Conditions at the site of operation at all times.
2. The Proponent shall forward copies of all permits obtained and required for this project to the Nunavut Impact Review Board (NIRB) prior to the commencement of the project.
3. The Proponent shall operate in accordance with all commitments stated in correspondence provided to NIRB (*NIRB Part 1 and 2 Forms*, February 11, 2011; *Non-Technical Summary*,

February 11, 2011) and to other authorizing agencies and government departments (*KIA Right of Way Application*, January 10, 2011; *INAC LUP Application*, March 15, 2011; *Letter of Response to GN-CLEY Comments*, April 8, 2011).

4. The Proponent shall operate the site in accordance with all applicable Acts, Regulations and Guidelines.

#### **Water Use**

5. The Proponent shall not extract water from any fish-bearing waterbody unless the water intake hose is equipped with a screen of appropriate mesh size to ensure that there is no entrapment of fish. Small lakes or streams should not be used for water withdrawal unless approved by the Nunavut Water Board.
6. The Proponent shall not use water, including constructing or disturbing any stream, lakebed or the banks of any definable water course unless approved by the Nunavut Water Board.

#### **Waste Disposal**

7. The Proponent shall keep all garbage and debris in bags placed in a covered metal container or equivalent until disposed of at an approved facility. All such wastes shall be kept inaccessible to wildlife at all times.

#### **Fuel and Chemical Storage**

8. The Proponent shall locate all fuel and other hazardous materials a minimum of thirty-one (31) metres away from the high water mark of any water body and in such a manner as to prevent their release into the environment.
9. The Proponent shall ensure that re-fuelling of all equipment occurs a minimum of thirty-one (31) metres away from the high water mark of any water body.
10. The Proponent shall store all fuel and chemicals in such a manner that they are inaccessible to wildlife.
11. The Proponent shall use adequate secondary containment or a surface liner (e.g. self-supporting insta-berms and fold-a-tanks), when storing barreled fuel and chemicals at all locations.
12. The Proponent shall use adequate secondary containment or a surface liner (e.g. self-supporting insta-berms and fold-a-tanks) at all refueling stations. Appropriate spill response equipment and clean-up materials (e.g., shovels, pumps, barrels, drip pans, and absorbents) must be readily available during any transfer of fuel or hazardous substances, as well as at vehicle-maintenance areas and at drill sites.
13. The Proponent shall inspect and document the condition of all fuel caches on a weekly basis. All fuel and chemical storage containers must be clearly marked with the Proponent's name and examined for leaks immediately upon delivery.
14. The Proponent shall remove and treat hydrocarbon contaminated soils on site or transport them to an approved disposal site for treatment.
15. The Proponent shall ensure that all personnel are properly trained in fuel and hazardous waste handling procedures, as well as spill response procedures. All spills of fuel or other

deleterious materials of any amount must be reported immediately to the 24 hour Spill Line at (867) 920-8130.

## **Wildlife**

16. The Proponent shall ensure that there is no damage to wildlife habitat in conducting this operation.
17. The Proponent shall not harass wildlife. This includes persistently worrying or chasing animals, or disturbing large groups of animals. The Proponent shall not hunt or fish, unless proper Nunavut authorizations have been acquired.
18. The Proponent shall ensure that all project personnel are made aware of the measures to protect wildlife and are provided with training and/or advice on how to implement these measures.
19. The Proponent shall not disturb or destroy the nests or eggs of any birds. If nests are encountered and/or identified, the Proponent shall take precaution to avoid further interaction and or disturbance (e.g., a 100 metre buffer around the nests). If active nests of any birds are discovered (i.e. with eggs or young), the Proponent shall avoid these areas until nesting is complete and the young have left the nest.
20. The Proponent shall restrict aircraft/helicopter activity related to the project to a minimum altitude of 610 metres above ground level unless there is a specific requirement for low-level flying, which does not disturb wildlife and migratory birds.
21. The Proponent shall ensure that aircraft maintain a vertical distance of 1000 metres and a horizontal distance of 1500 metres from any observed groups (colonies) of migratory birds. Aircraft should avoid critical and sensitive wildlife areas at all times by choosing alternate flight corridors.
22. The Proponent shall ensure that aircraft/helicopter do not, unless for emergency, touch-down in areas where wildlife are present.
23. The Proponent shall advise all pilots of relevant flight restrictions and enforce their application over the project area, including flight paths to/from the project area.
24. The Proponent shall cease activities that may interfere with the migration or calving of caribou or muskox, until the caribou or muskox have passed or left the area.
25. The Proponent shall not block or cause any diversion to caribou migration, and shall cease activities likely to interfere with migration such as airborne geophysics surveys, drilling or movement of equipment or personnel until such time as the caribou have passed.
26. The Proponent shall not construct or operate any camp, cache any fuel or conduct blasting within 10 km, or conduct any drilling operation within 5 km of any paths or crossings known to be frequented by (e.g. designated caribou crossings).
27. During the period of May 1 to July 15, when caribou are observed within 1 km of project operations, the Proponent shall suspend all operations, including low-level over flights, blasting, and use of snow mobiles and overland vehicles outside the immediate vicinity of the camps. Following July 15, if caribou cows or calves are observed within 1 km of project operations, the Proponent shall also suspend all operations in the vicinity, including low-



level over flights, blasting, and use of overland vehicles, until caribou are no longer in the immediate area.

### **Drilling on Land**

28. The Proponent shall not conduct any land based drilling or mechanized clearing within thirty-one (31) metres of the normal high water mark of a water body.
29. The Proponent shall not allow any drilling wastes to spread to the surrounding lands or water bodies.
30. If an artesian flow is encountered, the Proponent shall ensure the drill hole is immediately plugged and permanently sealed.
31. The Proponent shall ensure that all drill areas are constructed to facilitate minimizing the environmental footprint of the project area. Drill areas should be kept orderly with garbage removed daily to an approved disposal site.
32. The Proponent shall ensure that all sump/depression capacities are sufficient to accommodate the volume of waste water and any fines that are produced. The sumps shall only be used for inert drilling fluids, and not any other materials or substances.
33. The Proponent shall not locate any sump within thirty-one (31) metres of the normal high water mark of any water body. Sumps and areas designated for waste disposal shall be sufficiently bermed or otherwise contained to ensure that substances do not enter a waterway unless otherwise authorized.
34. The Proponent shall ensure all drill holes are backfilled or capped prior to the end of each field season. All sumps must be backfilled and restored to original or stable profile prior to the end of each field season.

### **Drilling on Ice**

35. If drilling is conducted on lake ice, the Proponent shall ensure that any return water is non-toxic, and will not result in an increase in total suspended solids in the immediate receiving waters above the Canadian Council of Ministers for the Environment (CCME) Guidelines for the Protection of Freshwater Aquatic Life (i.e. 10 mg/L for lakes with background levels under 100 mg/L, or 10% for those above 100 mg/L).
36. The Proponent shall ensure that drill muds and additives are not used in connection with holes drilled through lake ice unless they are re-circulated or contained such that they do not enter the water, or are demonstrated to be non-toxic.
37. The Proponent shall ensure that all drill cuttings are removed from ice surfaces daily.

### **Winter Road/Trail**

38. The Proponent shall select a winter route that maximizes the use of frozen water bodies.
39. The Proponent shall ensure that no disturbance of the stream bed or banks of any definable watercourse be permitted.
40. The Proponent shall not move any equipment or vehicles without prior testing the thickness of the ice to ensure the lake is in a state capable of fully supporting the equipment or vehicles.

41. The Proponent shall not move any equipment or vehicles unless the ground surface is in a state capable of fully supporting the equipment or vehicles without rutting or gouging.
42. The Proponent shall suspend overland travel of equipment or vehicles if rutting occurs. Likewise, upon spring break up, or at such a time as the shorelines of frozen water bodies begin to thaw, the Proponent shall suspend all travel over water bodies if disturbance to the banks or shorelines of any definable water body occurs.
43. The Proponent shall implement suitable erosion and sediment suppression measures on disturbed areas before, during and after construction in order to prevent sediment from entering any water body.
44. The Proponent shall ensure that winter lake/stream crossings are located to minimize approach grades and constructed entirely of ice and snow materials. Ice or snow free of sediment should be the only materials used to construct temporary crossings over any ice-covered watercourse.
45. The Proponent shall ensure that bank disturbances are avoided, and no mechanized clearing carried out immediately adjacent to any watercourse.
46. The Proponent shall ensure that stream crossings and/or temporary crossings constructed from ice and snow, which may cause jams, flooding or impede fish passage and or water flow, are removed or notched prior to spring break-up.
47. The Proponent shall avoid disturbance on slopes prone to natural erosion, and alternative locations shall be utilized.
48. The Proponent shall implement sediment and erosion control measures prior to, and during operations to prevent sediment entry into the water during the spring thaw. This includes ensuring that a sufficient thickness of snow and ice is present on the winter road to prevent unnecessary erosion of the underlying ground surface and impact on underneath vegetation.
49. The Proponent shall implement a clean-up and reclamation stabilization plan, which should include, but is not limited to, re-vegetation and/or stabilization of exposed soil in road bed.
50. The Proponent shall remove any trail markers, grease, and oil marks upon restoration of winter road, and shall make a note of any areas where damage to vegetation has occurred as a result of the winter road.

#### **Other**

51. The Proponent should, to the extent possible, hire local people and to consult with local residents regarding their activities in the region.
52. Any activity related to this application, and outside the original scope of the project as described in the application, will be considered a new project and should be submitted to the NIRB for Screening.

#### **Terms and Conditions issued February 10, 2015:**

##### **Waste Incineration**

53. The Proponent shall incinerate all combustible wastes daily and remove the ash from incineration activities to an approved facility for disposal or dispose of ash by burial beneath

no less than one (1) metre of compacted soil. Non-combustible wastes shall be removed from the project site to an approved facility for disposal.

54. The Proponent shall ensure that the incineration of combustible camp wastes comply with the *Canadian Wide Standards for Dioxins and Furans*, and the *Canadian Wide Standards for Mercury*.
55. The Proponent shall ensure that no waste oil/grease is incinerated on site.

### **Fuel Storage**

56. The Proponent shall inspect and document the condition of all large fuel tanks on a weekly basis. All fuel storage containers must be clearly marked with the Proponent's name and examined for leaks immediately upon delivery.

### **Establishment of New Quarries**

57. The Proponent shall use water or other non-toxic and biodegradable additives for dust suppression as necessary to maintain ambient air quality without causing water to pool or runoff.
58. The Proponent shall clearly stake and flag pit and quarry boundaries so they remain visible to other land users.
59. The Proponent shall locate quarry/pit facilities so as to avoid all recreational sites and public use areas, and to protect unique geographical features and natural aesthetics.
60. The Proponent shall ensure there is no obstruction of natural drainage, flooding or channel diversion from quarry/pit access, stockpiles, or other structures or facilities.
61. The Proponent shall ensure that silt fences/curtains are installed down gradient of any quarry activities.
62. The Proponent shall maintain an undisturbed buffer zone between the periphery of quarry sites and the high water mark of any water body that is of an adequate distance to ensure erosion control.
63. The Proponent shall locate screening and crushing equipment on stable ground, at a location with ready access to stockpiles.

### **Temporary Camps**

64. The Proponent shall ensure that all camps are located on gravel, sand or other durable land.
65. The Proponent shall not erect camps or store material on the surface ice of lakes or streams unless otherwise authorized by the Nunavut Water Board.

### **Other**

66. The Proponent shall take appropriate dust suppression measures on all gravel roads, including airstrip.

### **Terms and Conditions issued November 4, 2015:**

#### **General**

67. The Proponent shall operate in accordance with all commitments stated in correspondence provided to NIRB (*NIRB Part 1 and 2 Forms*, November 20, 2014, March 18, 2015; *Non-*

*Technical Summary*, November 20, 2014, March 18, 2015) and to other authorizing agencies and government departments (*KIA Access to Inuit Owned Lands*, November 24, 2014, July 20, 2015; *AANDC LUP Application*, October 29, 2014, April 24, 2015; and, *NWB Amendment to Type B Licence Application*, November 20, 2014, March 16, 2015).

### **Dust Suppression**

68. The Proponent shall use water or other non-toxic and biodegradable additives for dust suppression as necessary to maintain ambient air quality without causing water to pool or runoff. Dust suppression measures shall take place at all quarry locations, gravel roads, the airstrip and the all-weather road.
69. Proponent implements all available best management practices to avoid and mitigate *serious harm to fish* as a result of water crossings construction, operation and decommission. This includes, but is not limited to, minimizing infilling, appropriate design of water crossings to facilitate fish passage at both high and low flows, adherence to timing windows that incorporate spawning, incubation and hatch times for all species using watercourses and the development and implementation of sediment and erosion control plan.

### **Terms and Conditions issued October 5, 2016:**

#### **General**

70. The Proponent shall operate in accordance with all commitments stated in correspondence provided to the Nunavut Planning Commission (Application to Determine Conformity, May 12, 2016) and the NIRB (Online Application Form, June 2, 2016 and Proponent's Response to Comments, September 8, 2016).

#### **Fuel and Chemical Storage**

71. Unless otherwise authorized by the Nunavut Water Board, the Proponent shall locate all fuel and other hazardous materials a minimum of thirty-one (31) metres away from the high water mark of any water body and in such a manner as to prevent their release into the environment.
72. The Proponent shall ensure that re-fueling of all equipment occurs a minimum of thirty-one (31) metres away from the high water mark of any water body, unless otherwise authorized by the Nunavut Water Board.

#### **Migratory Birds and Raptors Disturbance**

73. The Proponent shall minimize activities during periods when birds are particularly sensitive to disturbance such as migration, nesting and moulting.

#### **Restoration of Disturbed Areas**

74. The Proponent shall remove all garbage, fuel and equipment upon abandonment.
75. The Proponent shall complete all clean-up and restoration of the lands used prior to the end of each field season and/or upon abandonment of site.

#### **Other**

76. The Proponent should consult with local residents regarding their activities in the area and solicit available Inuit Qaujimaningit and information that can inform project activities.

77. The Proponent shall ensure that project activities do not interfere with Inuit wildlife harvesting or traditional land use activities.

**Terms and conditions issued March 7, 2017:**

78. The Proponent shall operate in accordance with all commitments stated in correspondence provided to the Nunavut Planning Commission (Application to Determine Conformity, December 22, 2016), and the NIRB (Online Application Form, January 4, 2017 and Proponent's Response to Comments, February 9, 2017).

REGULATORY REQUIREMENTS

The Proponent has applied for, or will require, the following authorizations for the proposed exploration and/or development activities:

- Type B Water Licence – Nunavut Water Board (*application in process*)

*The Board previously has taken note of the following acts and regulations which were recognized as applicable to the Amaruq Exploration Program; the NIRB notes that the following acts and regulations may also be applicable to the activities now excepted from Review:*

**Acts and Regulations**

1. The *Fisheries Act* (<http://laws.justice.gc.ca/en/showtdm/cs/F-14//en>).
2. The *Nunavut Waters and Nunavut Surface Rights Tribunal Act* (<http://www.canlii.org/ca/sta/n-28.8/whole.html>).
3. The *Migratory Birds Convention Act* and *Migratory Birds Regulations* (<http://laws.justice.gc.ca/en/showtdm/cs/M-7.01>).
4. The *Species at Risk Act* (<http://laws.justice.gc.ca/en/showtdm/cs/S-15.3>). Attached in **Appendix C** is a list of Species at Risk in Nunavut.
5. The *Nunavut Wildlife Act* which contains provisions to protect and conserve wildlife and wildlife habitat, including specific protection measures for wildlife habitat and species at risk.
6. The *Nunavut Act* (<http://laws.justice.gc.ca/en/showtdm/cs/N-28.6>). The Proponent must comply with the proposed terms and conditions listed in the attached **Appendix D**.
7. The *Navigable Waters Protection Act* (NWPA) (<http://laws.justice.gc.ca/en/N-22/index.html>).
8. The Proponent is advised that the *Canadian Environmental Protection Act* (<http://laws.justice.gc.ca/en/C-15.31/>) lists calcium chloride (CaCl) as a toxic substance. The Proponent should assess alternatives to the use of CaCl as a drill additive, including biodegradable and non-toxic additives.
9. The *Aeronautics Act* (<http://laws-lois.justice.gc.ca/eng/acts/A-2/>).
10. The Proponent shall undertake quarrying in accordance with the *Nunavut Mining Safety Ordinance* and the *Territorial Quarrying Regulations* (<http://www.canlii.org/en/ca/laws/regu/crc-c-1527/latest/crc-c-1527.html>) or equivalent.

11. The CEPA *Storage Tank System for Petroleum Products and Allied Petroleum Products Regulations* ([www.ec.gc.ca/st-rs](http://www.ec.gc.ca/st-rs)). The Proponent must identify their tank system to Environment Canada and installation of new systems must comply with the regulations' design requirements.
12. The Proponent shall practice progressive reclamation in accordance with the restoration guidelines outlined in Aboriginal Affairs and Northern Development Canada's *Northern Land Use Guidelines Pits and Quarries* (<http://www.aadnc-aandc.gc.ca/eng/1100100023585>).
13. The *Transportation of Dangerous Goods Regulations*, *Transportation of Dangerous Goods Act* (<http://www.tc.gc.ca/eng/tdg/safety-menu.htm>), and the *Canadian Environmental Protection Act* (<http://laws-lois.justice.gc.ca/eng/acts/C-15.31/>). The Proponent must ensure that proper shipping documents accompany all movements of dangerous goods. The Proponent must register with the Government of Nunavut, Department of Environment Manager of Pollution Control and Air Quality at 867-975-7748.

#### **Other Applicable Guidelines**

14. The Proponent shall follow the Fisheries and Oceans Canada's (DFO) *Guidelines for the use of Explosives in or near Canadian Fisheries Waters* (<http://publications.gc.ca/site/eng/82558/publication.html>) and shall not conduct blasting if wildlife is within sight or hearing distance of the project area.

#### **CONCLUSION**

The foregoing constitutes the Board's determination with respect to the Agnico Eagle Mines Ltd.'s "Whale Tail Pit Project Type B Predevelopment Application". The NIRB remains available for consultation with the Minister regarding this report as necessary.

Dated October 10, 2017 at Whale Cove, NU.



Elizabeth Copland, Chairperson

Attachments: Appendix A: Public Comment Submissions  
Appendix B: Agnico Eagle Response to Comments, September 6, 2017  
Appendix C: Species at Risk in Nunavut  
Appendix D: Archaeological and Palaeontological Resources Terms and Conditions for Land Use Permit Holders

## **APPENDIX A: PUBLIC COMMENT SUBMISSIONS**



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**Kivalliq Inuit Association**

ᑲᑲᑦᑲᑲᑲᑲᑲᑲ/P.O. Box 340, ᑲᑲᑦᑲᑲᑲᑲ Rankin Inlet, Nunavut X0C 0G0  
ᐅᑦᑲᑲᑲ/Tel: (867) 645- 5725 ᑲᑲᑲᑲᑲ/Fax: (867) 645-2348 Toll free: 1-800-220-6581

August 17, 2017

Tara Arko  
Director, Technical Services  
Nunavut Impact Review Board  
P.O. Box 1360 (29 Mitik)  
Cambridge Bay, NU, X0B 0C0

Re: Letter of support for Whale Tail Pre-development License B Application.

The Kivalliq Inuit Association ("KIA") supports Agnico-Eagle's request for a NIRB exception and Type B predevelopment application as an exception under Article 12, Section 12.10.2(b). in relation to the proposed predevelopment/site preparation work for the Whale Tail Pit Project, provided that the predevelopment activities are included in the work plan to be approved by KIA pursuant to a production lease for the Whale Tail Project.

KIA's support is based on Agnico-Eagle's indication that the proposed predevelopment/site preparation would occur between November 2017 and February 2018 and would be comprised of the following:

- Construction of a pad, which under pre-development will be used as laydown area for pre-delivery of material (the future site of the camp);
- Construction of some service roads around the Whale Tail Pit site including a temporary bridge crossing;
- Expansion of the exploration access road to a haul road to ensure the safe pre-delivery of material (such as Vault Pit 777 haul trucks);
- Pre-delivery of material;
- Quarrying at Quarry 2 (for construction); and
- Construction of the waste rock berm.





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**Kivalliq Inuit Association**

ᑲᑲᑦᑲᑲᑲᑲᑲᑲ/P.O. Box 340, ᑲᑲᑦᑲᑲᑲᑲ Rankin Inlet, Nunavut X0C 0G0  
ᑲᑲᑲᑲᑲ/Tel: (867) 645- 5725 ᑲᑲᑲᑲᑲᑲ/Fax: (867) 645-2348 Toll free: 1-800-220-6581

KIA understands that the scale of the proposed activities would be small and the activities are not significant steps towards the development of the Whale Tail Project. While some of the proposed infrastructure could be considered permanent, AEM indicates potential for alternative use of the structures and materials for exploration, should the Whale Tail Project not proceed. Also KIA hold security deposit under the commercial lease KVCL314C01, and at the same time we are working with the proponent on the future Production Lease KVPL17D01

Proceeding with the work in the proposed time frame will help to address the projected gap in Inuit employment that will occur as a result of the timing of the completion of mining at Meadowbank and projected issuance of the Whale Tail Project Certificate (subject to the NIRB process and Ministerial approval).

Regards,

Gabriel Karlik,  
Executive Director  
Kivalliq Inuit Association  
(867) 645-5732  
[gkarlik@kivalliqinuit.ca](mailto:gkarlik@kivalliqinuit.ca)

Tara Arko  
Director, Technical Services  
Nunavut Impact Review Board  
P.O. Box 1360  
Cambridge Bay, NU X0B 0C0

**Sent via email:** [info@nirb.ca](mailto:info@nirb.ca)

**RE: NIRB file no. 16MN056: 12.10.2(b) exception application pertaining to Agnico Eagle Mines' proposed "Whale Tail Pit" project**

Dear Tara Arko,

On August 1, 2017, the Nunavut Impact Review Board (NIRB) invited interested parties to provide comments on the exception application under section 12.10.2(b) of the Nunavut Agreement and section 155 of the *Nunavut Planning and Project Assessment Act*, provided by Agnico Eagle Mines in support of their “Whale Tail Pit” project proposal.

The Government of Nunavut (GN) has reviewed the documents provided and in general, the GN agrees with the Proponent that any impacts related to the proposed construction activities can likely be mitigated. However, some concerns remain regarding AEM's proposed mitigation and monitoring of impacts associated with the operation of this infrastructure, as well as the relationship between this application and the ongoing review of the broader "Whale Tail Pit" project.

Given the application materials as presented, it is unclear how some of the listed pre-development activities qualify as facilitating the "limited transport and storage of equipment and materials related to a project undergoing Review, in recognition of the seasonal constraints imposed by the arctic conditions of the Nunavut Settlement Area". Comment GN-01 in the following appendix requests additional information from the proponent in support of the application. The remaining comments address the permanence of the proposed infrastructure (GN-02); the construction schedule for the proposed widening of the exploration road (GN-03); the timing of the pre-development application decision (GN-04); and the management of archaeological resources near the project site (GN-05).

If you have any questions pertaining to this submission or regarding GN participation in the review process, please feel free to contact me at (867) 975-7830 or at [ezell@gov.nu.ca](mailto:ezell@gov.nu.ca).

Qujannamiik,

Erika Zell  
*Avatiliriniq Coordinator*  
*Government of Nunavut*

<b>GN-01: Alternatives to haul road widening</b>	
<b>Department</b>	Environment
<b>Organization</b>	Government of Nunavut
<b>Subject/Topic</b>	Alternatives to haul road widening
<b>References</b>	Whale Tail Pit Pre-Development Type B Water Licence, Main Application Supporting Document, Section 4.0 Alternatives To The Project
<b>SUMMARY OF PROPONENT'S CONCLUSIONS</b>	
<p>Alternatives to the proposed widening of the Whale Tail haul road were discussed by the Proponent in the supporting documentation for the application. It was concluded that:</p> <p>“The alternative investigated was to leave the road in its’ current width. This is possible if pre-delivery of material is not approved. However, the lack of material jeopardizes the project schedule and the road is a key transportation corridor for transportation and pre-delivery of material. As a result, the widening of the road is integral to the pre-development Type B as the safety risk of transporting materials on the 6.5 m AEAR at its current width are significant to the individuals transporting materials and equipment (such as a 777 Haul Truck) to the Project.”</p>	
<b>REVIEWER'S COMMENTS AND SUPPORTING RATIONALE</b>	
<p>The following concerns are noted with respect to this alternatives assessment:</p> <ul style="list-style-type: none"> <li>• The existing 6.5 meter wide exploration road is already used for supplying exploration activities at the Proponent's Amaruq property. It is unclear from the application exactly what materials and equipment could or could not be transported on the existing road. Consequently, Intervenor cannot determine what “lack of material” would result and how this would jeopardize the Project schedule.</li> <li>• The need to widen the exploration road into a 9.5m haul road, as part of pre-development activity, is justified in this application based on safety concerns. The only specific example of a safety concern provided in the application is the movement of 777 haul trucks. These trucks are typically used for hauling of ore during mine operations. However, their role in other phases of the Proposed mine's development is unclear and does not appear to be linked to a pre-development activity such as the limited transport and storage of equipment and materials. Consequently, the importance of moving these trucks during the pre-development phase cannot be determined from the application.</li> <li>• Widening of the haul road and the movement of materials and equipment along this road over an 8- month period cannot be assumed to be a small-scale activity. This activity extends over a &gt;65 km long corridor and has the potential to disrupt the movement of wildlife, such as caribou, at a regional/herd scale (as discussed in the GN's final written submission for the</li> </ul>	

Whale Tail Project review).

**REVIEWER'S RECOMMENDATIONS**

The GN recommends the Proponent provide the following information for Intervenor to review for the 10.12.2 Exception application:

1. List the materials and equipment that they are seeking to transport and store during the pre-development phase;
2. Identify those items that could not be moved on the existing 6.5 m wide road and justify the importance of being able to move those items during the pre-development phase.

GN-02: Permanence of proposed infrastructure	
Department	Environment
Organization	Government of Nunavut
Subject/Topic	Permanence of the proposed activities and potential impacts
References	Proponent Cover letter to NIRB and NWB
SUMMARY OF PROPONENT'S CONCLUSIONS	
<p>In the July 14, 2017, letter from Agnico Eagle to NIRB, regarding the pre-development application the Proponent concludes that:</p> <p>“The scale of the proposed activities would be small and the activities are important steps towards achieving our objective to minimize unforeseen delays in the development of the Whale Tail Project. For clarity, no mining activities are included in the application, and while some of the proposed infrastructure could be characterized as "permanent", the proposed facilities and activities would be used to support exploration at Whale Tail Pit should the NIRB (and the Minister) determine that project would not proceed to permitting at this time. The activities would occur in an area with no particular identified ecosystemic sensitivity such as parks or protected areas, or historical, cultural or archeological significance. Agnico Eagle has not identified any potential for significant negative ecosystemic impacts should these activities proceed.”</p>	
REVIEWER'S COMMENTS AND SUPPORTING RATIONALE	
<p>The infrastructure established through this application would be permanent and it is unclear if it is an essential need for either pre-development transport of materials or for existing exploration activities.</p>	
REVIEWER'S RECOMMENDATIONS	
<p>It is recommended that the Proponent provide additional information supporting the need for establishing permanent infrastructure and how it is an essential need for the pre-development transport of materials or for existing exploration activities.</p>	

GN-03: Schedule for haul road widening	
Department	Environment
Organization	Government of Nunavut
Subject/Topic	Schedule for haul road widening
References	Whale Tail Pit Pre-Development Type B Water Licence, Main Application Supporting Document; 1.6 Pre-Development Works Schedule Agnico - Table 1.1: Work Schedule for Pre-Development
SUMMARY OF PROPONENT'S CONCLUSIONS	
See <i>Table 1.1: Work Schedule for Pre-Development</i> in AEM's Whale Tail Pre-Development Type B Water Licence application	
REVIEWER'S COMMENTS AND SUPPORTING RATIONALE	
<p>This table indicates that expansion of the Whale Tail haul road would occur from November 2017 to June 2018. This includes the fall and spring migratory periods. As detailed in the GN's written submissions during the Whale Tail project review, there is potential to disrupt caribou migrations during this time. The plan to construct during migratory periods is also inconsistent with the Terrestrial Ecosystem Management Plan (v4) for the Whale Tail Project, which indicates the Proponent will "Construct the Whale Tail Haul Road during the winter to avoid effects to caribou during potentially sensitive periods (e.g., spring and fall migration)" (Table 6, TEMP v4).</p>	
REVIEWER'S RECOMMENDATIONS	
<p>If widening of the haul road is approved, it should be timed to occur outside the fall and spring migratory periods for caribou; construction should not occur before December 15th and after April 1.</p>	

<b>GN-04: Timing of decision</b>	
<b>Department</b>	Environment
<b>Organization</b>	Government of Nunavut
<b>Subject/Topic</b>	Timing of pre-development application decision
<b>References</b>	<ul style="list-style-type: none"> <li>Letter from Agnico Eagle to the Nunavut Impact Review Board (Re: NIRB File No. 16MN056 Application No: 124683/ NWB File No. 2AM WTP--- Clarification regarding Agnico Eagle's June 15, 2017 Type B Water Licence Application ("Type B Application"), July 14, 2017.</li> <li>Whale Tail Pit Pre-Development Type B Water Licence Main Application Supporting Document, section 1.3 Whale Tail Pit and Haul Road Mine Plan Schedule</li> </ul>
<b>SUMMARY OF PROPONENT'S CONCLUSIONS</b>	
<p>In the July 14, 2017, letter from Agnico Eagle to NIRB, regarding the pre-development application the Proponent states that:</p> <p>“With respect to the process and timing related to this application, Agnico Eagle anticipates this application will be considered by NIRB in tandem with the current Whale Tail Project review and a decision may not be available until shortly after the NIRB makes its recommendation to the Minister with respect to its review of the Whale Tail Project (currently projected to occur during November 2017).”</p> <p>Within the supporting documentation for the application, the Proponent discusses the planned schedule for pre-development activities stating that:</p> <p>“This phase will commence after receipt of the NIRB Final Hearing Report on the new Type A Application (2AM WTP ----) or earlier (if possible), through a NIRB exception under Section 12.10.2 of the NLCA, a Type B Pre-development Water Licence from the NWB, and the land use permit from the KivIA”(Whale Tail Pit Pre-Development Type B Water Licence, Main Application Supporting Document, section 1.3)”</p> <p>From these statements it is apparent that the Proponent is seeking, if possible, a decision regarding the application before NIRB makes its recommendation to the Minister with respect to the Whale Tail Project. However, the Proponent also acknowledges that the timing of the decision may coincide with NIRB's recommendation to the Minister (or shortly thereafter).</p>	
<b>REVIEWER'S COMMENTS AND SUPPORTING RATIONALE</b>	

This is inconsistent with the Proponent's cover letter statement, where the Proponent anticipates a decision will not be available until after NIRB Final Hearing Report.

As detailed in the GN's final written submission on the Whale Tail Project review, there are currently outstanding concerns regarding the Project's potential impacts on wildlife and the ability to effectively monitor and mitigate those impacts (see GN final written submission for AEM's Whale Tail Project). Since the pre-development application and the Project rely on the same impact assessment, as well as the same wildlife monitoring and mitigation plans, those concerns also extend to the proposed pre-development activities, in particular the expansion and use of the haul road. These outstanding concerns could be resolved during the final hearing phase of the review through revisions to the Project's Terrestrial Ecosystem Management Plan (TEMP).

#### **REVIEWER'S RECOMMENDATIONS**

GN's concerns regarding the pre-development application may be largely resolved if:

- 1) A decision regarding this application is rendered when, or shortly after, the NIRB makes its recommendation to the Minister with respect to the Whale Tail Project, and;
- 2) The specific requirements for wildlife monitoring and mitigation, which are applied as conditions in the Project certificate and within the Project's Terrestrial Ecosystem Management Plan, are also applied fully to the pre-development activities.

In this instance it is assumed that the review of the pre-development application would be significantly, and necessarily, informed/enhanced by the outcome of the final hearing with respect to standards of monitoring and mitigation.



<b>GN-05: Archaeological resources</b>	
<b>Department</b>	Culture and Heritage
<b>Organization</b>	Government of Nunavut
<b>Subject/Topic</b>	Archaeological resources
<b>References</b>	AEM letter re: 12.10.2 application
<b>SUMMARY OF PROPONENT'S CONCLUSIONS</b>	
<p>The proponent is planning specific pre-development (site preparation) activities in order to accelerate the overall Project schedule. The activities include the construction of a pad for the permanent camp, of concrete foundations, of a temporary bridge crossing, of Mammoth Channel crossing and a waste rock berm. Activities will also include quarrying at Quarry 2, and the construction of service roads (between exploration area, Quarry 2 and Waste Rock Storage Facility; between exploration camp and proposed Nemo freshwater intake) and upgrading /widening of Whale Tail Pit haul road from 6.5m wide to 9.5m plus bypasses.</p>	
<b>REVIEWER'S COMMENTS AND SUPPORTING RATIONALE</b>	
<p>In the context of the Whale Tail Study, the proposed development areas have been the object of archaeological assessments under Nunavut Archaeology Permits 2013-15A, 2014 -17A, 2015-26A and 2016-20A. Three archaeological sites have been identified within the Whale Tail Study area including one on the northwest of Nemo Lake (LiLc-1) and two to the southeast of Whale Tail Lake (LiLc-2 and LiLc-3). None of these sites are in position to be affected by the development as currently proposed. However, if the project ultimately proceeds, the Whale Tail Lake levels may rise by a couple of meters and LiLc-3 may flood. At this time however, the potential for adverse impact on archaeological resources is limited.</p> <p>All archaeological and paleontological sites in Nunavut are protected by law. The applicant must understand that it is their responsibility to ensure that no heritage resource sites are disturbed in the course of their activities. No person shall alter, or otherwise disturb an archaeological site, or remove any artifact from an archaeological site. Moreover, the building of inuksuit is not recommended.</p>	
<b>REVIEWER'S RECOMMENDATIONS</b>	
<p>The Department of Culture and Heritage recommends that:</p> <p>(1) No activities be conducted in the vicinity (50 m buffer zone) of any archaeological sites. If archaeological sites or features are encountered during the project, activities should</p>	

immediately be interrupted and moved away from this location. Each site encountered needs to be recorded and reported to the Department of Culture and Heritage.



Environmental Protection Operations Directorate  
Prairie & Northern Region  
5019 52<sup>nd</sup> Street, 4<sup>th</sup> Floor  
P.O. Box 2310  
Yellowknife, NT X1A 2P7

August 18, 2017

ECCC File: 6100 000 008/014  
NIRB File: 16MN056

Sophia Granchinho  
Manager, Impact Assessment  
Nunavut Impact Review Board  
P.O. Box 1360  
Cambridge Bay, NU X0B 0C0

Via email: [info@nirb.ca](mailto:info@nirb.ca)

**RE: 16MN056 – Agnico Eagle Mines Ltd. – Whale Tail Pit Project – Pre-Development Application NIRB Screening**

Attention: Sophia Granchinho

Environment and Climate Change Canada (ECCC) has reviewed the information submitted to the Nunavut Impact Review Board (NIRB) regarding the above-mentioned screening of the pre-development application. ECCC's specialist advice is provided based on our mandate, in the context of the *Canadian Environmental Protection Act*, the pollution prevention provisions of the *Fisheries Act*, the *Migratory Birds Convention Act*, and the *Species at Risk Act* (SARA).

ECCC provides the following comments below, some of which have been provided by ECCC during the ongoing environmental assessment (EA) process for the Whale Tail Pit Project (the Project). Should this application for pre-development works be approved, it is ECCC's understanding that that Agnico Eagle Mines Ltd. (the Proponent) will implement the information provided and all commitments made during the EA process that are applicable to the pre-development activities outlined in this application whether or not the Project proceeds.

**General**

1. ECCC notes discrepancies in the pre-development activities schedule outlined in the Main Application Supporting Document. The following examples have been identified:

- Section 3.3.3 (Mammoth Channel Crossing) indicates that the temporary bridge will be constructed in April 2018 and is expected to be used for pre-development activities during the open water season from June to October 2018. Table 1.1 (Work Schedule for Pre-development) does not list any pre-development activities that will occur after June 2018.
- Table 1.1 indicates that construction of the laydown area for pre-delivery of material will start November 2017, but quarrying at Quarry 2 will begin February 2018. Section 3.1.1 (Quarrying at Quarry 2) indicates that the material excavated from Quarry 2 will be used as construction material for the permanent camp pad (laydown area for pre-delivery material). ECCC is unsure of how material from Quarry 2 will be used for construction of the laydown area if quarrying will not occur until February 2018 and whether material from other sources will be used.

ECCC recommends that the Proponent clarify the scheduling of pre-development works including the timing and duration of these activities.

## **Atmospheric Environment**

### **Haul Road Monitoring**

2. Table 1.1 indicates that the Exploration Access Road may be expanded starting late 2017 and pre-delivery of material on the haul road may start February 2018. However, the application does not outline any dustfall monitoring along the haul road should it be completed and in use prior to the approval of the Project.

ECCC recommends that the Proponent provide information on any haul road monitoring that will be conducted during pre-development activities and clarify if the monitoring will follow the information provided in the Proponent's response to technical comment ECCC#2 a) (see Agnico Eagle Whale Tail Pit TC Response Package, April 2017).

## **Terrestrial Environment**

### **Migratory Birds – Monitoring and Mitigation**

3. ECCC notes that the pre-development activities listed in the application may include clearing (e.g. for laydown area, roads, quarry etc...) and that the majority of this work will occur prior to the general migratory bird season (mid-May to mid-August). However, ECCC would like to remind the Proponent of technical comment ECCC#9 (see ECCC's Technical Review Comments to NIRB, March 2017).

ECCC recommends that the Proponent take into account ECCC's guidelines on migratory birds so that all pre-development activities are carried out in a manner



that protects migratory birds and avoids harming, killing or disturbing migratory birds or destroying, disturbing or taking their nests or eggs. These guidelines can be found at <http://www.ec.gc.ca/paom-itmb/>. Options such as avoiding, adapting, rescheduling or relocating activities should be considered and implemented if there are indications of migratory bird nests where activities having the potential to disturb or destroy nests are proposed.

#### Migratory Birds – Shipping Impacts

4. The Proponent references the Shipping Management Plan throughout the application and notes that shipping will continue to occur for pre-development activities. ECCC provided comments on the shipping impacts to migratory birds during the EA process for the Project and would like to remind the Proponent of technical comment ECCC#7 (see ECCC's Technical Review Comments to NIRB, March 2017).

ECCC recommends that:

- a) the Proponent provide shipping contractors with a map of identified resources at risk along the shipping route, including key marine habitat sites for migratory birds.
- b) the Proponent encourage shipping contractors to establish what steps would be taken to protect wildlife (including migratory birds) in the event of a pollution incident and have the equipment to do so. The information should include specific measures to keep wildlife out of a contaminated area, location and specifics of equipment available to do this, what measures would be taken if animals do come in contact with the pollutant and when such procedures should be used. This information should be incorporated into their Shipboard Oil Pollution Emergency Plan.
- c) the Marine Mammal and Seabird monitoring program in the Shipping Management Plan follow the Eastern Canada Seabird At Sea standardized protocols developed for moving and stationary platforms.

#### Species at Risk

5. The Proponent lists species at risk potentially found in the Project area and provides relevant monitoring and mitigation in the Terrestrial Ecosystem Management Plan. However, ECCC would like to remind the Proponent of technical comment ECCC#8 (see ECCC's Technical Review Comments to NIRB, March 2017).

ECCC recommends that if species at risk are encountered or affected by pre-development activities, the primary mitigation measure should be avoidance. The

Proponent should avoid contact with or disturbance to each species, its habitat and/or its residence. The Proponent should create a list of species at risk potentially interacting with shipping activities in the Shipping Management Plan. As new species are assessed by Committee on the Status of Endangered Wildlife in Canada or added to Schedule 1 of SARA on a regular basis, ECCC recommends that the Proponent consult the Species at Risk registry to obtain the most current information when revising management plans and reporting annual monitoring results.

## **Freshwater Environment**

### Monitoring

6. Table F.2 (Proposed Monitoring for the Project during Pre-Development Activities) in the Main Application Supporting Document provides the proposed monitoring that is specific to the pre-development works (Type B Application). Several stations are proposed relating to various pre-development activities, but additional details are required.
  - a) Station ST-DD-1 will monitor for changes to water quality during construction of the Mammoth temporary bridge by sampling for turbidity and TSS once daily. ECCC notes that daily monitoring is not sufficient during in-stream works.
  - b) ST-S-1 will monitor the seeps (to be determined) during pre-development as required. No details are provided on how often surveys will be conducted to monitor for the occurrence of seeps or the locations in which seeps are to be monitored for.
  - c) ST-WT-TBD will monitor the waste rock storage facility for total sulfur, total inorganic carbon, and total arsenic as required.

ECCC recommends that the Proponent:

- a) provide additional sampling intervals to monitor for TSS/turbidity during the in-stream work at the Mammoth crossing.
- b) describe the timeline for seepage surveys and the locations to be monitored for seepage.
- c) add additional sampling parameters to the monitoring list for ST-WT-TBD, including total metals, major ions, and nutrients. ECCC also recommends that the Proponent provide clarification on what is meant by “as required”.

Should you require further information, please do not hesitate to contact me at (867) 669-4733 or [Melissa.Pinto@canada.ca](mailto:Melissa.Pinto@canada.ca).

Sincerely,

*Melissa Pinto*

Melissa Pinto  
Senior Environmental Assessment Coordinator

cc: Georgina Williston, Head, Environmental Assessment North (NT and NU)  
ECCC Review Team



Fisheries and Oceans  
Canada

Pêches et Océans  
Canada

501 University Crescent  
Winnipeg, MB  
R3T 2N6

*Your file*      *Votre référence*  
16MN056

*Our file*      *Notre référence*  
16-HCAA-00370

August 18, 2017

Sophia Granchinho  
Manager, Impact Assessment  
Nunavut Impact Review Board  
P.O. Box 1360  
Cambridge Bay, NU X0B 0C0

Dear Sophia Granchinho:

**Subject: Agnico Eagle Mines Ltd.'s Application for Exceptions from the ongoing Review of the Whale Tail Pit Project**

The Fisheries Protection Program of Fisheries and Oceans Canada (DFO-FPP) would like to thank the Nunavut Impact Review Board (NIRB) for the opportunity to provide comments on Agnico Eagle Mines Ltd.'s (AEM) Whale Tail Pit Project Type B Pre-development Application.

As outlined in your request dated August 1, 2017, reviewers are invited to submit comments to the NIRB by August 18, 2017.

DFO-FPP has reviewed the application and supporting documents in accordance with its mandate to maintain the sustainability and ongoing productivity of commercial, recreational and Aboriginal fisheries. DFO-FPP is providing the following comments:

*DFO-FPP Comment 1 – Reference: Main Application Supporting Document; 3.3.3 Mammoth Channel Crossing (p. 25).*

DFO-FPP notes that AEM provided conceptual engineering drawings of the temporary bridge crossing in Appendix D. DFO-FPP understands that the centre pier has a footprint of approximately 71 m<sup>2</sup> and that the span of the bridge is 24 m. However, it is unclear to DFO-FPP what the footprint of the bridge abutments below the high water mark (HWM) will be. DFO-FPP recommends that AEM provide DFO-FPP with the width of the



proposed temporary bridge crossing, and the footprint of the abutments and the bank armouring that will occur below the HWM (153 m).

*DFO-FPP Comment 2 – Reference: Main Application Supporting Document; 3.3.2 Culverts (p. 25).*

DFO-FPP notes that AEM plans to install “only 1 new culvert, identified as Culvert 184,...” during the pre-development stage. DFO-FPP acknowledges that AEM has provided preliminary drawings of ‘typical cross sections’ of the culvert designs in Appendix D. DFO-FPP requests that AEM provide detailed, site specific engineer drawings for each of the proposed culverts and watercourse crossings (including Culvert 184). This includes but is not limited to the calculations used to determine correct sizing of the culvert which will ensure adequate velocities for fish passage during both high and low flows, and the hydraulic calculations showing the capacity of the culvert to adequately handle peak flows. This can be provided as part of AEM’s ‘DFO-FPP’s Request for Review’ submission as part of the regulatory phase.

*DFO-FPP Comment 3 – Reference: Main Application Supporting Document; 3.3.1 Haul Roads, All-Weather Roads, Site Access/Service Roads, and Winter Roads (p. 24) and 3.3.2 Culverts (p. 25).*

DFO-FPP notes that AEM plans to widen the Whale Tail haul road from 6.5 m width to 9.5 m and intends to extend the culverts to “allow for adequate drainage” (p. 24). DFO-FPP notes that culverts 182 and 183 are existing culverts that “...were previously approved for construction under the 2B – MEA1318” (p. 25). Since AEM is planning to widen the haul road, it is unclear whether AEM will be extending culverts 182 and 183 to accommodate the wider road. As such, DFO-FPP recommends that AEM clarify whether the noted culverts will require replacement, and if so, DFO-FPP recommends that AEM provide site specific detailed drawings for both culvert 182 and 183. This can be provided as part of AEM’s ‘DFO-FPP’s Request for Review’ submission as part of the regulatory phase.

*DFO-FPP Comment 4 - Reference: Main Application Supporting Document 3.1.1 Quarrying at Quarry 2 (p. 23) and 3.1.2 Borrow Pits and Quarry Sites for Road Development (p. 23).*

DFO-FPP notes that the distance between the Whale Tail Lake and Quarry 2 is approximately 31 m (p. 23). DFO-FPP notes that blasting has the potential to cause *serious harm* to fish and as such DFO-FPP recommends that AEM adhere to the most recent blasting advice. In order to assist proponents in avoiding *serious harm* to fish, DFO-FPP provides the following guidance document: Cott, P.A., and Hanna, B.W. 2005.

Monitoring Explosive-Based Winter Seismic Exploration in Waterbodies, NWT 2000-2002. Blasting should be done in accordance with DFO's NU Timing Window and can be found at <http://www.dfo-mpo.gc.ca/pnw-ppe/timing-periodes/nu-eng.html>.

Furthermore, it remains the Proponent's responsibility to ensure it avoids causing *serious harm* to fish in compliance with the *Fisheries Act*, and that it meets the requirements under the *Species at Risk Act* as it may apply to your project. If the Proponent's plans have changed or if the description of its proposal is incomplete, or changes in the future, the Proponent should consult our website (<http://www.dfo-mpo.gc.ca/pnw-ppe/index-eng.html>) or consult with a qualified environmental consultant to determine if further review is required by the Program.

If you have any questions, please contact Sally Wong at (867) 669 - 4934, or by email at [Sally.Wong@dfo-mpo.gc.ca](mailto:Sally.Wong@dfo-mpo.gc.ca). Please refer to the file number referenced above when corresponding with the Program.

Sincerely,

A handwritten signature in dark ink, appearing to read 'M. Curtis', with a large loop at the end of the last name.

Martyn Curtis  
Regional Manager, Regulatory Reviews  
Fisheries Protection Program

cc. Mark D'Aguiar, DFO-FPP  
Sally Wong, DFO-FPP



Nunavut Regional Office  
P.O. Box 100  
Iqaluit, NU, X0A 0H0

Your file - Votre référence  
16MN056  
Our file - Notre référence  
CIDMS # 1166931

August 18, 2017

Sophia Granchinho  
Manager, Impact Assessment  
Nunavut Impact Review Board  
P.O. Box 1360  
Cambridge Bay, NU, X0B 0C0  
*Via electronic mail to: info@nirb.ca*

**Re: Request for Public Comment Regarding Agnico Eagle Mines Ltd.'s  
Application for Exceptions from the Ongoing Review of the Whale Tail Pit  
Project**

Dear Ms. Granchinho,

On August 1, 2017 the Nunavut Impact Review Board (NIRB) invited interested parties to comment on Agnico Eagle Mine Ltd.'s (AEM or Proponent) application for exceptions, pursuant to Section 12.10.2(b) of the Nunavut Agreement, for a number of pre-development/site preparation activities related to its Whale Tail Pit Project. The Whale Tail Pit Project is currently undergoing a Review by the NIRB pursuant to Part 5, Article 12 of the Nunavut Agreement and Section 94(1)(a)(iv) of the Nunavut Planning and Project Assessment Act (NuPPAA).

The proposed site preparation activities AEM wishes to include are:

1. Pre-delivery of material, fuel, and equipment;
2. Construction of concrete pads, including options for supplies laydown area (the future site of the camp), and water treatment plant foundation;
3. Construction of some service roads around the Whale Tail Pit site to undertake other predevelopment activities including:
  - a) Construction of a temporary bridge crossing over the Mammoth Channel in March 2018,
  - b) Construction of a road between Quarry 2 and Waste Rock Storage Facility (WRSF),
  - c) Construction of a road and one culvert between exploration camp and proposed Nemo freshwater intake,



- d) Construction of a road between exploration area and new road between Quarry 2 and the WRSF,
- e) Upgrading/widening of the Whale Tail Pit haul road from 6.5m wide to 9.5m plus bypasses to ensure the safe pre-delivery of material and equipment (such as Vault Pit 777 haul trucks);
- 4. Quarrying at Quarry 2 (for construction); and
- 5. Construction of the waste rock berm.

Indigenous and Northern Affairs Canada (INAC) appreciates the opportunity to participate in this process and provides the following comments as per the NIRB's request.

**A. A determination of whether Parties agree/disagree with the conclusions in the application package regarding the alternatives assessment, environmental impacts, proposed mitigation, significance of impacts, and monitoring measures – and reasons to support the determination;**

The proposed site preparation activities fall within the larger Whale Tail Pit Project that is currently undergoing a Review by the NIRB pursuant to Part 5, Article 12 of the Nunavut Agreement and Section 94(1)(a)(iv) of the Nunavut Planning and Project Assessment Act (NuPPAA).

INAC conducted a review of the application package and, in areas within INAC's mandate, did not identify any outstanding issues.

**B. A determination of whether or not conclusions in the application package are supported by the analysis – and reasons to support the determination;**

INAC conducted a review of the application package and, in areas within its mandate; INAC did not identify any information, information gaps, analytical errors, or uncertainties that would invalidate the key conclusions reached by the Proponent in the application package.

**C. A determination of whether appropriate methodology was utilized in the application package to develop conclusions – and reasons to support the determination, along with any proposed alternative methodologies which may be more appropriate (if applicable);**

INAC found that the methodology used to develop the conclusions in the application package was appropriate.



**D. An assessment of the quality and presentation of the information in the application package;**

INAC noted that the information included in the application package was generally adequate. However, detailed information on the pre-delivery of material (i.e., equipment, material, and fuel) was absent. This includes information on the proposed list of materials to be delivered, their quantities, and delivery schedule.

**E. Any comments regarding:**

**a) the expressed need for and required timing of the proposed exceptions as presented;**

Table 1.1 of the NWB Main Application Supporting Document Pre-Development indicated that “Quarrying at Quarry 2” would be carried out from February to June 2018, while Table 3.1 of the application showed it occurring from November 2017 to September 2018. Furthermore Table 1.1, of the NWB main application indicated that the construction of Laydown area would start in November 2017, while quarrying at Quarry 2, which would supply the construction material for the Laydown area, would start in February 2018. The work schedule for the pre-development activities requires clarification before INAC is able to adequately assess the need and required timing of the proposed exceptions.

**b) the permanence of proposed infrastructure;**

All of the proposed infrastructure would need to be reclaimed.

**c) the reversibility of potential impacts;**

Pre-construction activities such as upgrading and widening of the Whale Tail Pit haul road and the construction of concrete pads will likely destroy any vegetation within the construction footprints. Given the extreme physical/ecological conditions, the potential impacts on vegetation will most likely be irreversible.

**d) the potential need for associated security bonding**

Should a Type A Water Licence be issued for the Whale Tail Pit Project in the future, INAC considers AEM’s request to incorporate the security required under the Type B Licence into the Type A Water Licence to be reasonable.



**F. Whether an approval of the proposed activities would have the effect or appearance of fettering any further or final decision by the Board or Minister relating to the larger mining and milling project under Review.**

INAC takes no position on the issue of whether approval of the proposed activities would have the effect or appearance of fettering any further or final decision by the NIRB relating to the larger Whale Tail Pit Project Proposal currently under review, and submits that this issue is one that must be determined by the NIRB.

Sincerely,

[Original Signed by]

Marcus Bermann  
A/Director Resource Management



Natural Resources  
Canada

Ressources naturelles  
Canada

## Technical Submission

### Whale Tail Pit - 16MN056 Project Type B Pre-Development Application

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Natural Resources Canada

**Submission to the Nunavut Impact Review Board**

**August 18, 2017**



## 1. Introduction

Agnico Eagle Mines Ltd. (AEM) has submitted to the Nunavut Impact Review Board (NIRB), a request for exception application for the proposed Whale Tail Pit Project. AEM proposes to conduct a number of pre-development activities to allow construction, site preparation and mobilization while awaiting the Project Certificate and Type A license. This would allow for a full open water season of construction and initiation of production in 2019 and reduction of the gap between closure of Meadowbank and start of Whale Tail Pit operations. This is similar to the approved pre-development approach of the Meadowbank and Meliadine mines. The Proposed activities include pad construction for the camp, initiation of concrete foundations, construction of various service roads to undertake pre-development activities, upgrading and widening of the Whale Tail Pit haul road (i.e. upgrading of approved exploration access road) and construction of the waste rock berm. Quarrying at Quarry 2 will also be required to support some of these activities.

The Nunavut Impact Review Board (NIRB) has requested that parties review the documentation to assess the validity of the Proponent's conclusions with respect to environmental effects of these activities. The relevant documentation has been reviewed by Natural Resources Canada (NRCan) with emphasis on permafrost, terrain sensitivity and groundwater aspects of the proposed activities.

### 1.1. NRCan's Mandate

NRCan seeks to enhance the responsible development and use of Canada's natural resources and the competitiveness of Canada's natural resources products. We are an established leader in science and technology in the fields of energy, forests, and minerals and metals and use our expertise in earth sciences to build and maintain an up-to-date knowledge base of our landmass. NRCan develops policies and programs that enhance the contribution of the natural resources sector to the economy and improve the quality of life for all Canadians. We conduct innovative science in facilities across Canada to generate ideas and transfer technologies. We also represent Canada at the international level to meet the country's global commitments related to the sustainable development of natural resources.

### 1.2. NRCan's Participation in the Exception Application Review of the Whale Tail Pit Project

NRCan participated in the review of the proposed pre-development activities outlined in the application for exceptions from the ongoing NIRB review of the Whale Tail Pit Project as a department with expertise in permafrost, terrain sensitivity and groundwater.





## **2. Specific Comments**

### **2.1. Permafrost and Terrain Sensitivity**

#### **2.1.1. Introduction**

The pre-development activities including pad construction, road construction and widening, berm construction and extraction of borrow resources may have impacts on the ground thermal regime which can lead to thawing of permafrost, terrain instability and alterations in drainage. Permafrost conditions and how they may change needs to be considered in the planning and design of the pre-development activities to ensure that impacts on the environment are minimized and that infrastructure integrity is maintained.

#### **2.1.2 Proponent's Conclusion**

The Proponent has concluded that proposed pre-development activities will not result in significant impacts (sec. 5, of Application). They note that baseline programs have been completed as part of the Final Environmental Impact Statement (FEIS) for the haul road and the Whale Tail Pit site. Routing of the haul road for example, has been selected based on terrain conditions, minimization of water crossings and availability of borrow material. Existing management plans will be followed (e.g. Application, App F, G and App. 8-C FEIS) to ensure there are no additional impacts associated with pre-development activities. For the upgrade to the all weather road, the Proponent is requesting the same terms and conditions and mitigation measures for the existing water license issued for the exploration road be applicable to the upgrade in a new license (sec. 2.3.1 of Application).

#### **2.1.3 NRCan's Conclusion**

A significant pre-development activity is the upgrade and widening of the exploration access road to a haul road. Essentially this will involve widening an already approved road by 3 m and will require expansion of already approved borrow pits and quarries to provide the necessary construction material. NRCan agrees that the Proponent has followed a reasonable approach in routing of the approved road and has provided drawings which outline their design approach for various soil and terrain sensitivity conditions (App. D of Application). With respect to impacts on permafrost and terrain, NRCan agrees that impacts can be minimized by following the terms, conditions and mitigation measures of the existing licence, the environmental protection and management plans (Application App. F; FEIS App. 8-C), including the proposed inspections (Table F.4, App. F of Application). Similarly, existing management plans will be followed for borrow pits and quarries and this should be adequate to ensure terrain impacts are minimized (sec. 3.1.2 of Application).

Another significant activity will be construction of the waste rock storage facility berm. Non-potential acid generating and non-metal leaching rock from Quarry 2 will be utilized to construct the berm which is an essential component of the waste rock storage facility. The construction of the berm should not have any adverse effect on ground thermal conditions and temperatures as the base of the waste rock is expected to be below 0°C.



In summary, with respect to the issues considered, it is NRCan's view that impacts of pre-development activities on permafrost conditions can be minimized by following the terms, conditions and mitigation measures in existing approved licences and management plans and the measures proposed in the Application (e.g. App. F and also FEIS App. 8-C).

NRCan has no further recommendations.

#### **2.1.4 Documents Reviewed**

Whale Tail Pit Pre-Development Type B Water Licence, Main Application Supporting Document. Submitted to Nunavut Impact Review Board by Agnico Eagle Mines Ltd, July 2017 Appendices D, E, F, G  
Final Environmental Impact Statement for the Whale Tail Pit, App. 8-C Addendum for Transportation Infrastructure.

### **2.2. Groundwater**

#### **2.1.1 NRCan's Conclusions**

In summary, with respect to groundwater issues, it is NRCan's understanding that the impacts of the pre-development activities on groundwater can be minimized by following the terms and conditions and the mitigation measures in the existing approved licences and monitoring and management plans as proposed in the Whale Tail Application (See section 2.3.6 of NRCan's Final Submission for other references).

NRCan has no further recommendations.

#### **2.1.2 Documents Reviewed**

Volume 8 – Monitoring, Mitigation, and Management Plans – Whale Tail Haul Road Management Plan  
Whale Tail Pit Pre-Development Type B Water Licence, Main Application Supporting Document. Submitted to Nunavut Impact Review Board by Agnico Eagle Mines Ltd, July 2017 Appendices D, E, F, G  
Final Environmental Impact Statement for the Whale Tail Pit, App. 8-C Addendum for Transportation Infrastructure.



Transport  
Canada

Transports  
Canada

Prairie and Northern Region  
Environmental Services, Programs  
P.O. Box 8550  
3<sup>rd</sup> Floor, 344 Edmonton Street  
Winnipeg, Manitoba  
R3C 0P6

Your file / Votre référence  
16MN056  
Our file / Notre référence  
7075-70-1-33

August 18, 2017

Tara Arko  
Director, Technical Services  
Nunavut Impact Review Board  
P.O. Box 1360  
Cambridge Bay, NU  
X0B 0C0

**Re: Request for Comment Regarding Agnico Eagle Mines Ltd.'s Application for Exceptions from the ongoing Review of the Whale Tail Pit Project**

Transport Canada received the Nunavut Impact Review Board (NIRB) letter dated August 1, 2017, requesting parties to review and provide comments on the Agnico Eagle Mines Ltd. (AEM) "Whale Tail Pit Project Type B Predevelopment Application" project proposal. The scope of this proposal consists of pre-development/site preparation activities to occur between November 2017 and June 2018.

Based on the current scope of the proposals, Transport Canada does not require AEM attain any approvals or permits for the Whale Tail Pit Project Type B Predevelopment Application project proposal, nor for the environmental assessment of the proposed AEM Whale Tail Pit project (NIRB File No.: 16MN056). AEM has chosen not to Opt-In for their project-related in-water works on non-Scheduled waterways to be reviewed under the Navigation Protection Act. The responsibility to assess and address potential impacts to navigational access and safety resulting from these works rests with AEM.

Transport Canada appreciates the opportunity to comment on the AEM Application for Exceptions for the Whale Tail Pit Project Type B Predevelopment Application project proposal. Should you have any questions regarding Transport Canada's comments, please contact Christopher Aguirre via email at [christopher.aguirre@tc.gc.ca](mailto:christopher.aguirre@tc.gc.ca) or by telephone at (204) 984-2615.

Regards,

Adam Downing  
A/Superintendent Environmental Services



Sophia Granchinho  
Manager, Impact Assessment, Nunavut Impact Review Board

August 14, 2017

**RE: AEM's Request for Exemptions for 'Whale Tail' Project [16MN056]**

Ms. Granchinho,

The Baker Lake Hunters and Trappers Organization's (BLHTO) has been informed of Agnico-Eagle Mines Ltd. (AEM)'s request for an exemption for its 'Whale Tail Pit' project. The BLHTO understands that AEM would like to begin construction before the NIRB review of this proposal is complete.

The BLHTO recommends the NIRB deny AEM's request. The BLHTO supports responsible mining in our region. However, the BLHTO only supports development that is properly reviewed according to the process set out in the Nunavut Land Claim Agreement (NLCA).

The BLHTO believes that allowing AEM to begin construction before the NIRB process is complete undermines both the NIRB and the NLCA. We are especially concerned that allowing Agnico to begin construction before the NIRB review is complete will set a terrible precedent for future proposals.

According to the NLCA, exemptions that allow a project to begin before a review is complete are only allowed for three reasons:

- 1) If the activity is required to conduct research to support the review
- 2) If the activity is necessary to continue existing exploration activities
- 3) If the activity is necessary due to the seasonal constraints caused by arctic climate

Agnico's request for an exemption does not seem to be based on any of these issues. It simply wishes to begin construction early to avoid delays in its mining production. This has nothing to

do with ongoing research, ongoing exploration, or the Arctic climate. As such, granting AEM's request would seem to violate the spirit and intent of the NLCA.

Thank you for allowing to BLHTO to comment on this important matter.

A handwritten signature in black ink, appearing to read 'Richard Awksawnee', followed by a long, horizontal, wavy line.

Richard Awksawnee  
Chair, Baker Lake Hunters and Trappers Organization

**APPENDIX B: AGNICO EAGLE RESPONSE TO COMMENTS, SEPTEMBER 6, 2017**





September 6, 2017

Sophia Granchinho  
Manager, Impact Assessment - Nunavut Impact Review Board  
29 Mitik St P.O. Box 1360  
Cambridge Bay, NU  
X0B 0C0

**Re: NIRB File No. 16MN056 – Opportunity to Address Comments Received Regarding Agnico Eagle Mines Ltd.’s Application for Exceptions from the Ongoing Review of the Whale Tail Pit Project**

Dear Ms. Granchinho,

Agnico Eagle appreciates that NIRB has provided Agnico Eagle the opportunity to respond to the screening comments provided by the interveners as outlined in the NIRB letter dated August 23rd, 2017 regarding the “Receipt of Public Comment Regarding Agnico Eagle Mines Ltd’s Application for Exceptions from the ongoing Review of the Whale Tail Pit Project”.

The following responses from Agnico Eagle acknowledges the concerns, recommendations and comments of the interveners and believes that the proposed predevelopment activities will not have a significant adverse environmental impact nor ecosystemic effects. Given the scale of the project, our operational experience in Nunavut, the impacts are predictable and can be mitigated by keeping the site footprint small, utilizing the currently approved infrastructure at Amaruq, and by applying best known technologies, “existing documentation from past assessments<sup>1</sup>”, best management practices and other proven technologies presented to NIRB and NWB during the Whale Tail Pit Project review.

It is important to acknowledge that the activities proposed in this amendment are within the current footprint of the KIA commercial lease and are not going to significantly change the current camp activities that support surface drilling on the Amaruq site. Agnico Eagle will continue to work with local stakeholders prior to the predevelopment activities to ensure the concerns that were raised in these comments have been adequately addressed.

Agnico Eagle has applied for a NIRB exemption to ensure a timely assessment and in order to ensure the gap between the end of production and mining at the Meadowbank Mine, and commencement of predevelopment activities at Whale Tail Pit is limited to the extent possible to ensure employment continuity in Nunavut. Agnico Eagle will further address the recommendations from INAC, ECCC and DFO during the NWB Type B regulatory phase of the project.

Should you have any questions or require further information, please contact the undersigned Jamie Quesnel at [Jamie.quesnel@agnicoeagle.com](mailto:Jamie.quesnel@agnicoeagle.com) M: 819.856.0821, or, Ryan Vanengen at [ryan.vanengen@agnicoeagle.com](mailto:ryan.vanengen@agnicoeagle.com) M:819.651.2974.

Regards,

**Agnico Eagle Mines Limited**

---

<sup>1</sup> Aboriginal Affairs and Northern Development Canada. Sept 1, 2016. Minister’s response to NIRB’s report.



Regards,

Jamie Quesnel  
[Jamie.Quesnel@agnicoeagle.com](mailto:Jamie.Quesnel@agnicoeagle.com)  
819.856.8021.  
Environmental Superintendent – Nunavut

Ryan Vanengen  
[ryan.vanengen@agnicoeagle.com](mailto:ryan.vanengen@agnicoeagle.com)  
819.651.2974  
Amaruq Permitting Lead





## **General Comments from KivIA, GN and BL HTO**

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Agnico Eagle acknowledges the KivIA letter of support dated August 17, 2017, for the Whale Tail Pit proposed predevelopment activities. Agnico Eagle agrees the predevelopment activities would help bridge the gap in Inuit employment between completion of Meadowbank and the projected issuance of the Whale Tail Project Certificate.

As well, Agnico Eagle acknowledges the comments submitted by the Baker Lake Hunters and Trappers Organization (BLHTO) and GN regarding the exception application. Following receipt of the BLHTO's letter of August 14, 2017, Agnico Eagle requested an opportunity to meet with the BLHTO in order to better understand their concerns and to explain Agnico-Eagle's proposal and the exception process in further detail. Agnico Eagle and the BLHTO met on August 29, 2017, with a follow-up meeting scheduled for September 8, 2017.

The exception process is an established regulatory process under the Nunavut Agreement as well as Nunavut Planning and Project Assessment Act ("NuPPAA"). Granting of the exception in this case will not interfere with the completion of a thorough and complete review of the Whale Tail Pit Project under Part 5 of Article 12 of the Nunavut Agreement and section 102 of the NuPPAA. The NIRB final hearings for the Whale Tail Pit Project will be completed prior to the start of the proposed excepted activities.

The robust NIRB approach to pre-development exception applications can be found in several examples of applications and decisions for pre development work:

- February 20, 2012 approval of the Agnico Eagle Mine's proposal for a 23.8 km all weather access road ("AWAR") for the Meliadine Project;
- June 24, 2016 decision to approve an application from TMAC Resources for pre development approval of the Madrid Advanced Exploration Program in advance of the environmental assessment of the Phase 2 Hope Bay Project Proposal. The pre development work included additional camp facilities, construction of two access portals and ramps for underground operations, a 4.7 km extension of the existing all weather access road, development of a winter road until the all weather access road has been constructed, ore and rock quarry facilities, waste and ore stockpiles, and water and waste management structures.

As discussed with the BLHTO representative during our meeting on August 29, 2017, our exception application is not a request to proceed with general mining before the NIRB review of the proposal is complete. Rather, Agnico Eagle has requested a very limited scope NIRB approval to proceed with construction of certain facilities and activities. The exception application includes pre delivery of material, construction of a laydown area, construction of some service roads around the Whale Tail Pit site, expansion of the exploration access road to a haul road to ensure the safe delivery of material and equipment, quarrying at Quarry 2, and construction of the waste rock berm.

It is important to note that all of the facilities and activities included in the exception application would be used to support continuing advanced exploration, in the event the Whale Tail Pit project is not approved by NIRB. The proposed activities such as road preparation, pad construction and pre-delivery



are consistent with those which have been approved for other northern advanced exploration projects and do not include production mining activities such as commencement of mining or ore extraction.

Proceeding with the work included in the exception application in the proposed time frame would have significant positive socio-economic benefits as it would significantly address the projected gap in Nunavummiut employment that will occur as a result of the timing of the completion of mining at Meadowbank and projected issuance of the Whale Tail Project Certificate.

In summary, consistent with the KivIA's position, Agnico Eagle believes that granting of the exception application in this case is consistent with the Nunavut Agreement and the NLCA; would not cause any significant adverse ecosystemic impacts; would have significant positive socio-economic impacts and would be an important step towards minimizing potential impacts of any unforeseen delays in the review of the Whale Tail Project.

### **Schedule Inconsistencies from ECCC and INAC**

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1.1: ECCC #1 recommends that the Proponent clarify the scheduling of pre-development works including the timing and duration of these activities.

1.2: INAC E) recommends that the work schedule for the pre-development activities requires clarification before INAC is able to adequately assess the need and required timing of the proposed exceptions.

#### **Agnico Eagle's Response to ECCC #1 and INAC E):**

Agnico Eagle apologizes for the confusion in the schedule for pre-development activities. Please refer to Table 1 which provides the updated schedule of predevelopment activities. Note most of the activities will continue until June 15, 2018, however activities indicated by ^ will begin under the proposed predevelopment license and if approved, construction may continue under the Type 2AM WTP --- activities.

**Table 1: Schedule of Predevelopment Activities**

	NIRB 12.10.2 (b) Exemption Requested Activities and NWB Type B Predevelopment - submitted July 14, 2017	Quarry or Material Source	Construction*		
			Start Date	End Date	
	<b>Works planned between November 15, 2017 to June 15, 2018 (or prior to receiving Type 2AM WTP:----)</b>				
1	construction of a pad for the permanent camp (Note, pad will be used for storing pre-delivered material);	Quarry 1	15-Nov-17	15-Jun-18	^
2	construction of necessary service roads and expansion of the exploration access road to a haul road				
	i) Roads from Amaruq Camp to Mammoth Crossing	Quarry 1	15-Nov-17	15-Feb-18	
	ii) Roads from Quarry 2 to South of Mammoth Lake	Quarry 2	15-Jan-18	15-Jun-18	^
	iii) Site wide road maintenance	Quarry 2	15-Jan-18	15-Jun-18	^
	iv) Enlargement of the Amaruq Exploration Access Road (6.5m) to Haul Road (9.5m)	Road Quarries and Esker	15-Nov-17	15-Jun-18	^
3	quarrying at Quarry 2		15-Jan-18	15-Jun-18	^
4	construction of waste rock berm;	Quarry 1 and 2	15-Nov-17	15-Jun-18	^
5	construct Mammoth Channel crossing ; and	NA	1-Mar-18	15-Apr-18	
6	pre-delivery of material.	NA	15-Dec-17	15-Jun-18	
^ if approved, construction will continue under the Type 2AM WTP---- activities					
* all of these dates are approximate and may change depending on the timing of receipt of the NIRB exemption and NWB Type B for predevelopment activities.					

1.3 GN-01 recommends the Proponent provide the following information for Intervenor to review for the 10.12.2 exception application:

1. List of materials and equipment that they are seeking to transport and store during the predevelopment phase;
2. Identify those items that could not be moved on the existing 6.5 m wide road and justify the importance of being able to move those items during the pre-development phase.

**Agnico Eagle's Response to GN-01:**

To reduce the projected gap in employment, Agnico Eagle has developed an employment strategy that will allow machine operators to transition from mining at Meadowbank to predevelopment activities and then upon receipt of the Type A License, construction and operational activities at Whale Tail Pit. For safety, the quarrying and site preparation equipment such as loaders and 777 Haul Trucks that are currently at Meadowbank require safe shipment on

the 9.5m wide road. As per GN-01 recommendation, Table 2 summarizes the general list of materials and equipment that for safety, require a 9.5m wide road.

**Table 2: List of Equipment and Requirements for pre-delivery on the 9.5 m wide road.**

<b>Material to be Pre-delivered</b>	<b>Model</b>	<b>Quantity</b>	<b>Approximate Date of Shipment to Whale Tail Pit</b>	<b>Requires 9.5m haul road</b>
Temporary Bridge Structures		2	15-Jan-18	No
Crane		1	15-Jan-18	No
Camp Buildings		NA	15-Nov-18	Yes
Camp Construction Material		NA	15-Nov-18	No
Fuel/ Explosives		NA	Ongoing	No
<b>Equipment</b>				
50 tonne trucks		4	15-Nov-17	No
Dozers		2	15-Nov-17	No
Drills	DM-45	2	15-Nov-17	No
Loaders for use in Quarries	992	1	15-Jan-18	Yes
	1250	1	15-Jan-18	Yes
777 Haul Trucks in Quarries (100 tonne)	CAT	4	15-Jan-18	Yes

## **Atmospheric Environment**

2.1: ECCC #2 recommends that the Proponent provide information on any dustfall monitoring along the haul road that will be conducted during pre-development activities and clarify if the monitoring will follow the information provided in the proponent's response to April 2017 technical comment ECCC#2

### **Agnico Eagle's Response to ECCC #2:**

Agnico Eagle agrees with ECCC's recommendation and will apply the Project's Terrestrial Ecosystem Management Plan (TEMP) monitoring and mitigation for pre-development activities that includes adherence to TEMP Appendix D- AWAR and Haul Road Dustfall Monitoring Plan that incorporates ECCC#2 technical comments and follow-up meetings with ECCC regarding sampling locations for Whale Tail Pit.

## **Terrestrial Environment from ECCC and GN**

3.1: ECCC # 3 recommends that the Proponent take into account ECCC's guidelines on migratory birds so that all pre-development activities are carried out in a manner that protects migratory birds and avoids harming, killing or disturbing migratory birds or destroying, disturbing or taking their nests or eggs. These guidelines can be found at [http://www.ec.gc.ca/paom-i\\_tmb/](http://www.ec.gc.ca/paom-i_tmb/). Options such as avoiding, adapting, rescheduling or relocating activities should be considered and implemented if there are



indications of migratory bird nests where activities having the potential to disturb or destroy nests are proposed.

**Agnico Eagle's Response to ECCC 3:**

Agnico Eagle agrees with the recommendations and will adhere to ECCC guidelines for protection of migratory birds and avoidance of harming, killing and disturbing or destroying nests or eggs.

3.2: ECCC 4 a) recommended the Proponent provide shipping contractors with a map of identified resources at risk along the shipping route, including key marine habitat sites for migratory birds.

**Agnico Eagle's Response to ECC 4a:**

Agnico Eagle agrees with this recommendation and will provide the requested information to the shipping contractor.

3.3: ECCC 4 b) recommended the Proponent encourage shipping contractors to establish what steps would be taken to protect wildlife (including migratory birds) in the event of a pollution incident and have the equipment to do so. The information should include specific measures to keep wildlife out of a contaminated area, location and specifics of equipment available to do this, what measures would be taken if animals do come in contact with the pollutant and when such procedures should be used. This information should be incorporated into their Shipboard Oil Pollution Emergency Plan.

**Agnico Eagle's Response to 4b:**

Agnico Eagle agrees with this recommendation and will provide the requested information to the shipping contractor.

3.4: ECCC 4 c) recommended the Marine Mammal and Seabird monitoring program in the Shipping Management Plan follow the Eastern Canada Seabird At Sea standardized protocols developed for moving and stationary platforms

**Agnico Eagle's Response to 4c)**

Agnico Eagle agrees with this recommendation and will follow Appendix 8-D.5 Whale Tail Pit Shipping Management Plan and will adhere to applicable protocols developed for moving and stationary platforms.

3.5: ECCC 5) recommended that if species at risk are encountered or affected by pre- development activities, the primary mitigation measure should be avoidance. The Proponent should avoid contact with or disturbance to each species, its habitat and/or its residence. The Proponent should create a list of species at risk potentially interacting with shipping activities in the Shipping Management Plan. As new species are assessed by Committee on the Status of Endangered Wildlife in Canada or added to Schedule 1 of SARA on a regular basis, ECCC recommends that the Proponent consult the Species at Risk



registry to obtain the most current information when revising management plans and reporting annual monitoring results.

#### **Agnico Eagle's Response to 3.5**

Agnico Eagle agrees with ECCC's recommendation and will update the Appendix 8-D.5 Whale Tail Pit Shipping Management Plan accordingly.

3.6: GN-04 recommends that the specific requirements for wildlife monitoring and mitigation, which are applied as conditions in the Project certificate and within the Project's Terrestrial Ecosystem Management Plan, are also applied fully to the pre-development activities.

#### **Agnico Eagle's Response to GN-04**

Agnico Eagle agrees with GN's recommendation and will apply the Project's Terrestrial Ecosystem Management Plan monitoring and mitigation for pre-development activities.

3.7: NRCan recommended that by following the terms, conditions and mitigation measures in existing approved licenses and management plans and the measures proposed in the Application that impacts of pre-development activities on permafrost conditions can be minimized.

#### **Agnico Eagle's Response to NRCan**

Agnico Eagle appreciates NRCan's comments and will adhere to these recommendations.

### **Freshwater Environment from ECCC and INAC**

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4.1: ECCC 6a) recommended the proponent provide additional sampling intervals to monitor for TSS/turbidity during the in-stream work at the Mammoth crossing.

#### **Agnico Eagle's Response to ECCC 6a)**

Agnico Eagle will complete the construction of the Mammoth channel during the winter to prevent TSS/turbidity from entering the Mammoth stream. Agnico Eagle will conduct standard spring geotechnical and erosional inspections as per the NWB Type B license requirements.

4.2: ECCC 6b) recommended the proponent describe the timeline for seepage surveys and the locations to be monitored for seepage.

#### **Agnico Eagle's Response to ECCC 6b)**

Agnico Eagle agrees with ECCC's recommendation and will conduct seepage survey down gradient from the waste rock berm and in the quarries on a monthly basis as per the NWB Type B license requirements.



4.3: ECCC 6c) recommended the proponent add additional sampling parameters to the monitoring list for ST-WT-TBD, including total metals, major ions, and nutrients. ECCC also recommends that the Proponent provide clarification on what is meant by "as required".

**Agnico Eagle's Response to ECCC 6c)**

Agnico Eagle agrees with ECCC's recommendation and will adhere to the NWB Type B license requirements. For clarification, "as required" denotes that Agnico Eagle will adhere to the conditions imposed by the licensing and authorizing agency; in this case, "as required" by the NIRB screening decision or Type B predevelopment license.

4.4: NRCan recommended that by following the terms and conditions and the mitigation measures in the existing approved licences and monitoring and management plans as proposed in the Whale Tail Application impacts of the pre-development activities on groundwater can be minimized.

**Agnico Eagle's Response to NRCan:**

Agnico Eagle appreciates NRCan's comments and will adhere to these recommendations.

**GN and INAC recommendations – Additional Information Required**

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5.1: GN-02 recommends that the Proponent provide additional information supporting the need for establishing permanent infrastructure and how it is an essential need for the pre-development transport of materials or for existing exploration activities.

**Agnico Eagle's Response to GN-02**

Agnico Eagle refers the GN to Agnico Eagle response 1.3. Agnico Eagle agrees with the GN. The *predevelopment* application inherently is a request to begin preparing the site for construction of the Whale Tail Pit Project through proposed activities such as road preparation, pad construction for pre-delivery and quarry development. That said, in the event the Whale Tail Pit project is not approved by NIRB, as noted in our application, the predevelopment infrastructure will be used to support continuing advanced exploration to the north of Whale Tail Lake and south of Mammoth Lake.

5.2: GN-03 recommends that if widening of the haul road is approved, it should be timed to occur outside the fall and spring migratory periods for caribou; construction should not occur before December 15th and after April 1.

**Agnico Eagle's Response to 5.4**

During the predevelopment Agnico Eagle will adhere to the monitoring and mitigation in accordance with the TEMP. Based on our experience constructing the Amaruq exploration road and operational practices at Meadowbank, best management and mitigation practices outlined



in the TEMP can ensure safe protection of caribou throughout the year and construction activities will be managed in accordance with the TEMP requirements for sensitive seasons.

## **Culture and Heritage from GN**

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6.1: It is recommended that no activities be conducted in the vicinity (50 m buffer zone) of any archaeological sites. If archaeological sites or features are encountered during the project, activities should immediately be interrupted and moved away from this location. Each site encountered needs to be recorded and reported to the Department of Culture and Heritage.

### **Agnico Eagle's Response to 6.1**

Agnico Eagle agrees with the GN recommendations and will continue to adhere to the Appendix 8-E.8 Archaeological management plan for the Whale Tail Pit Project.

## **Design from DFO**

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7.1: DFO-FPP recommends that AEM provide DFO-FPP with the width of the proposed temporary bridge crossing, and the footprint of the abutments and the bank armoring that will occur below the HWM (153 m).

### **Agnico Eagle's Response to 7.1**

Agnico Eagle refers DFO to the attached drawing which indicates a width of the bridge is 5.5m. Consistent with the design of bridges constructed along the Amaruq Exploration Access Road, the abutments will be above the water level of 152.00. Agnico Eagle will continue to work with the DFO during the regulatory phase of the project and will include details regarding the abutment footprints at that time.

7.2: DFO-FPP requests that AEM provide detailed, site specific engineer drawings for each of the proposed culverts and watercourse crossings (including Culvert 184). This includes but is not limited to the calculations used to determine correct sizing of the culvert which will ensure adequate velocities for fish passage during both high and low flows, and the hydraulic calculations showing the capacity of the culvert to adequately handle peak flows. This can be provided as part of AEM's 'DFO-FPP's Request for Review' submission as part of the regulatory phase.

### **Agnico Eagle's Response to 7.2**

Agnico Eagle will continue to work with DFO during the regulatory phase of the project.

7.3: DFO-FPP recommends that AEM clarify whether the noted culverts will require replacement, and if so, DFO-FPP recommends that AEM provide site specific detailed drawings for both culvert 182 and 183. This can be provided as part of AEM's 'DFO-FPP's Request for Review' submission as part of the regulatory phase.





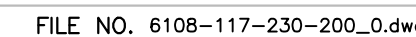
### **Agnico Eagle's Response to 7.3**

Agnico Eagle will continue to work with DFO during the regulatory phase of the project.

7.4: DFO-FPP notes that the distance between the Whale Tail Lake and Quarry 2 is approximately 31 m (p. 23). DFO-FPP notes that blasting has the potential to cause serious harm to fish and as such DFO-FPP recommends that AEM adhere to the most recent blasting advice. In order to assist proponents in avoiding serious harm to fish, DFO-FPP provides the following guidance document: Cott, P.A., and Hanna, B.W. 2005. Monitoring Explosive-Based Winter Seismic Exploration in Waterbodies, NWT 2000-2002. Blasting should be done in accordance with DFO's NU Timing Window and can be found at <http://www.dfo-mpo.gc.ca/pnw-ppe/timing-periodes/nu-eng.html>

### **Agnico Eagle's Response to 7.3**

Agnico Eagle agrees with DFO and will adhere to the above mentioned guidance for blasting.



## Appendix C: Species at Risk in Nunavut

Due to the requirements of Section 79(2) of the Species At Risk Act (SARA), and the potential for project-specific adverse effects on listed wildlife species and its critical habitat, measures should be taken as appropriate to avoid or lessen those effects, and the effects need to be monitored. Project effects could include species disturbance, attraction to operations and destruction of habitat. This section applies to all species listed on Schedule 1 of SARA, as listed in the table below, or have been assessed by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC), which may be encountered in the project area. This list may not include all species identified as at risk by the Territorial Government. The following points provide clarification on the applicability of the species outlined in the table.

- Schedule 1 is the official legal list of Species at Risk for SARA. SARA applies to all species on Schedule 1. The term “listed” species refers to species on Schedule 1.
- Schedule 2 and 3 of SARA identify species that were designated at risk by the COSEWIC prior to October 1999 and must be reassessed using revised criteria before they can be considered for addition to Schedule 1.
- Some species identified at risk by COSEWIC are “pending” addition to Schedule 1 of SARA. These species are under consideration for addition to Schedule 1, subject to further consultation or assessment.

If species at risk are encountered or affected, the primary mitigation measure should be avoidance. The Proponent should avoid contact with or disturbance to each species, its habitat and/or its residence. All direct, indirect, and cumulative effects should be considered. Refer to species status reports and other information on the species at risk Registry at <http://www.sararegistry.gc.ca> for information on specific species.

Monitoring should be undertaken by the Proponent to determine the effectiveness of mitigation and/or identify where further mitigation is required. As a minimum, this monitoring should include recording the locations and dates of any observations of species at risk, behaviour or actions taken by the animals when project activities were encountered, and any actions taken by the proponent to avoid contact or disturbance to the species, its habitat, and/or its residence. This information should be submitted to the appropriate regulators and organizations with management responsibility for that species, as requested.

For species primarily managed by the Territorial Government, the Territorial Government should be consulted to identify other appropriate mitigation and/or monitoring measures to minimize effects to these species from the project.

Mitigation and monitoring measures must be undertaken in a way that is consistent with applicable recovery strategies and action/management plans.

Schedules of SARA are amended on a regular basis so it is important to check the SARA registry ([www.sararegistry.gc.ca](http://www.sararegistry.gc.ca)) to get the current status of a species.

Updated: September 2017

Terrestrial Species at Risk <sup>1</sup>	COSEWIC Designation	Schedule of SARA	Government Organization with Primary Management Responsibility <sup>2</sup>
Migratory Birds			
Buff-breasted Sandpiper	Special concern	Schedule 1	ECCC
Eskimo Curlew	Endangered	Schedule 1	ECCC
Harlequin Duck (Eastern population)	Special Concern	Schedule 1	ECCC
Harris's Sparrow	Special Concern	Pending	ECCC
Horned Grebe (Western population)	Special Concern	Schedule 1	ECCC
Ivory Gull	Endangered	Schedule 1	ECCC
Peregrine Falcon	Special Concern ( <i>anatum-tundrius</i> complex <sup>3</sup> )	Schedule 1 - Schedule 3	ECCC
Red Knot ( <i>islandica</i> subspecies)	Special Concern	Schedule 1	ECCC
Red Knot ( <i>rufa</i> subspecies)	Endangered	Schedule 1	ECCC
Red-necked Phalarope	Special concern	Pending	ECCC
Ross's Gull	Threatened	Schedule 1	ECCC
Rusty Blackbird	Special Concern	Schedule 1	ECCC
Short-eared Owl	Special Concern	Schedule 1	ECCC
Vegetation			
Blanket-leaved Willow	Special Concern	Schedule 1	Government of Nunavut
Felt-leaf Willow	Special Concern	Schedule 1	Government of Nunavut
Porsild's Bryum (Moss)	Threatened	Schedule 1	Government of Nunavut
Arthropods			
Traverse Lady Beetle	Special Concern	Pending	Government of Nunavut
Terrestrial Wildlife			
Caribou (Barren-Ground population)	Threatened	Pending	Government of Nunavut
Dolphin and Union Caribou	Special Concern	Schedule 1	Government of Nunavut
Grizzly Bear (Western Population)	Special Concern	Pending	Government of Nunavut
Peary Caribou	Endangered	Schedule 1	Government of Nunavut
Peary Caribou (High Arctic Population)	Endangered	Schedule 2	Government of Nunavut
Peary Caribou (Low Arctic Population)	Threatened	Schedule 2	Government of Nunavut
Wolverine	Special Concern	Pending	Government of Nunavut
Wolverine (Western population)	Non-active	Pending	Government of Nunavut
Marine Wildlife			
Atlantic Walrus	Special Concern	Pending	DFO
Beluga Whale (Cumberland Sound population)	Endangered	Schedule 2	DFO
Beluga Whale (Eastern High Arctic – Baffin Bay population)	Special Concern	Pending	DFO
Beluga Whale (Eastern Hudson Bay population)	Endangered	Pending	DFO
Beluga Whale (Southeast	Endangered	Schedule 2	DFO

Baffin Island – Cumberland Sound population)			
Beluga Whale (Western Hudson Bay population)	Special Concern	Pending	DFO
Bowhead Whale (Eastern Arctic population)	Endangered	Schedule 2	DFO
Bowhead Whale (Eastern Canada – West Greenland population)	Special Concern	Pending	DFO
Killer Whale (Northwest Atlantic / Eastern Arctic populations)	Special Concern	Pending	DFO
Narwhal	Special Concern	Pending	DFO
Polar Bear	Special Concern	Schedule 1	Government of Nunavut/DFO
Fish			
Atlantic Cod, Arctic Lakes	Special Concern	Pending	DFO
Atlantic Wolffish	Special Concern	Schedule 1	DFO
Bering Wolffish	Special Concern	Schedule 3	DFO
Blackline Prickleback	Special Concern	Schedule 3	DFO
Fourhorn Sculpin	Special Concern	Schedule 3	DFO
Fourhorn Sculpin (Freshwater form)	Data Deficient	Schedule 3	DFO
Northern Wolffish	Threatened	Schedule 1	DFO
Roundnose Grenadier	Endangered	Pending	DFO
Spotted Whitefish	Threatened	Schedule 1	DFO
Thorny Skate	Special Concern	Pending	DFO

<sup>1</sup> The Department of Fisheries and Oceans has responsibility for aquatic species.

<sup>2</sup> Environment Canada (EC) has a national role to play in the conservation and recovery of Species at Risk in Canada, as well as responsibility for management of birds described in the Migratory Birds Convention Act (MBCA). Day-to-day management of terrestrial species not covered in the MBCA is the responsibility of the Territorial Government. Populations that exist in National Parks are also managed under the authority of the Parks Canada Agency.

## Appendix D: Archaeological and Palaeontological Resources Terms and Conditions for Land Use Permit Holders



### INTRODUCTION

The Department of Culture and Heritage (CH) routinely reviews land use applications sent to the Nunavut Water Board, Nunavut Impact Review Board and the Indigenous and Northern Affairs Canada. These terms and conditions provide general direction to the permittee/proponent regarding the appropriate actions to be taken to ensure the permittee/proponent carries out its role in the protection of Nunavut's archaeological and palaeontological resources.

### TERMS AND CONDITIONS

- 1) The permittee/proponent shall have a professional archaeologist and/or palaeontologist perform the following **Functions** associated with the **Types of Development** listed below or similar development activities:

	<b>Types of Development</b> (See Guidelines below)	<b>Function</b> (See Guidelines below)
a)	Large scale prospecting	Archaeological/Palaeontological Overview Assessment
b)	Diamond drilling for exploration or geotechnical purpose or planning of linear disturbances	Archaeological/ Palaeontological Inventory
c)	Construction of linear disturbances, Extractive disturbances, Impounding disturbances and other land disturbance activities	Archaeological/ Palaeontological Inventory or Assessment or Mitigation

Note that the above-mentioned functions require either a Nunavut Archaeologist Permit or a Nunavut Palaeontologist Permit. CH is authorized by way of the *Nunavut and Archaeological and Palaeontological Site Regulations*<sup>5</sup> to issue such permits.

- 2) The permittee/proponent shall not operate any vehicle over a known or suspected archaeological or palaeontological site.

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<sup>5</sup> P.C. 2001-1111 14 June, 2001

- 3) The permittee/proponent shall not remove, disturb, or displace any archaeological artifact or site, or any fossil or palaeontological site.
- 4) The permittee/proponent shall immediately contact CH at (867) 934-2046 or (867) 975-5500 should an archaeological site or specimen, or a palaeontological site or fossil, be encountered or disturbed by any land use activity.
- 5) The permittee/proponent shall immediately cease any activity that disturbs an archaeological or palaeontological site encountered during the course of a land use operation until permitted to proceed with the authorization of CH.
- 6) The permittee/proponent shall follow the direction of CH in restoring disturbed archaeological or palaeontological sites to an acceptable condition. If these conditions are attached to either a Class A or B Permit under the Territorial Lands Act Indigenous and Northern Affairs Canada directions will also be followed.
- 7) The permittee/proponent shall provide all information requested by CH concerning all archaeological sites or artifacts and all palaeontological sites and fossils encountered in the course of any land use activity.
- 8) The permittee/proponent shall make best efforts to ensure that all persons working under its authority are aware of these conditions concerning archaeological sites and artifacts and palaeontological sites and fossils.
- 9) If a list of recorded archaeological and/or palaeontological sites is provided to the permittee/proponent by CH as part of the review of the land use application the permittee/proponent shall avoid the archaeological and/or palaeontological sites listed.
- 10) Should a list of recorded sites be provided to the permittee/proponent, the information is provided solely for the purpose of the proponent's land use activities as described in the land use application, and must otherwise be treated confidentially by the proponent.

### **Legal Framework**

As stated in Article 33 of the *Agreement between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in right of Canada* (Nunavut Agreement):

*Where an application is made for a land use permit in the Nunavut Settlement Area, and there are reasonable grounds to believe that there could be sites of archaeological importance on the lands affected, no land use permit shall be issued without written consent of the Designated Agency. Such consent shall not be unreasonably withheld. [33.5.12]*

*Each land use permit referred to in Section 33.5.12 shall specify the plans and methods of archeological site protection and restoration to be followed by the permit holder, and any other conditions the Designated Agency may deem fit. [33.5.13]*

### **Palaeontology and Archaeology**

Under the *Nunavut Act*<sup>6</sup>, the federal government can make regulations for the protection, care and preservation of palaeontological and archaeological sites and specimens in Nunavut. Under

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<sup>6</sup> s. 51(1)

the *Nunavut Archaeological and Palaeontological Sites Regulations*<sup>7</sup>, it is illegal to alter or disturb any palaeontological or archaeological site in Nunavut unless permission is first granted through the permitting process.

## **Definitions**

As defined in the *Nunavut Archaeological and Palaeontological Sites Regulations*, the following definitions apply:

*“archaeological site” means a place where an archaeological artifact is found.*

*“archaeological artifact” means any tangible evidence of human activity that is more than 50 years old and in respect of which an unbroken chain of possession or regular pattern of usage cannot be demonstrated, and includes a Denesuline archaeological specimen referred to in Section 40.4.9 of the Agreement between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in right of Canada (Nunavut Agreement).*

*“palaeontological site” means a site where a fossil is found.*

*“fossil” includes:*

*Fossil means the hardened or preserved remains or impression of previously living organisms or vegetation and includes:*

- (a) natural casts;*
- (b) preserved tracks, coprolites and plant remains; and*
- (c) the preserved shells and exoskeletons of invertebrates and the preserved eggs, teeth and bones of vertebrates.*

## *Guidelines for Developers for the Protection of Archaeological Resources in the Nunavut Territory*

(Note: Partial document only, complete document at: [www.ch.gov.nu.ca/en/Archaeology.aspx](http://www.ch.gov.nu.ca/en/Archaeology.aspx))

## **Introduction**

The following guidelines have been formulated to ensure that the impacts of proposed developments upon heritage resources are assessed and mitigated before ground surface altering activities occur. Heritage resources are defined as, but not limited to, archaeological and historical sites, burial grounds, palaeontological sites, historic buildings and cairns. Effective collaboration between the developer, the Department of Culture, and Heritage (CH), and the contract archaeologist(s) will ensure proper preservation of heritage resources in the Nunavut Territory. The roles of each are briefly described.

CH is the Nunavut Government agency which oversees the protection and management of heritage resources in Nunavut, in partnership with land claim authorities, regulatory agencies, and the federal government. Its role in mitigating impacts of developments on heritage resources is as follows: to identify the need for an impact assessment and make recommendations to the appropriate regulatory agency; set the terms of reference for the study depending upon the scope of the development; suggest the names of qualified individuals

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prepared to undertake the study to the developer; issue an archaeologist or palaeontologist permit authorizing field work; assess the completeness of the study and its recommendations; and ensure that the developer complies with the recommendations.

The primary regulatory agencies that CH provides information and assistance to are the Nunavut Impact Review Board, for development activities proposed for Inuit Owned Lands (as defined in Section 1.1.1 of the *Agreement between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in right of Canada* (Nunavut Agreement)), and the Indigenous and Northern Affairs Canada, for development activities proposed for federal Crown Lands.

A developer is the initiator of a land use activity. It is the obligation of the developer to ensure that a qualified archaeologist or palaeontologist is hired to perform the required study and that provisions of the contract with the archaeologist or palaeontologist allow permit requirements to be met; i.e. fieldwork, collections management, artifact and specimen conservation, and report preparation. On the recommendation of the contract archaeologist or palaeontologist in the field and the Government of Nunavut, the developer shall implement avoidance or mitigative measures to protect heritage resources or to salvage the information they contain through excavation, analysis, and report writing. The developer assumes all costs associated with the study in its entirety.

Through his or her active participation and supervision of the study, the contract archaeologist or palaeontologist is accountable for the quality of work undertaken and the quality of the report produced. Facilities to conduct fieldwork, analysis, and report preparation should be available to this individual through institutional, agency, or company affiliations. Responsibility for the curation of objects recovered during field work while under study and for documents generated in the course of the study as well as remittance of artifacts, specimens and documents to the repository specified on the permit accrue to the contract archaeologist or palaeontologist. This individual is also bound by the legal requirements of the *Nunavut Archaeological and Palaeontological Sites Regulations*.

### **Types of Development**

In general, those developments that cause concern for the safety of heritage resources will include one or more of the following kinds of surface disturbances. These categories, in combination, are comprehensive of the major kinds of developments commonly proposed in Nunavut. For any single development proposal, several kinds of these disturbances may be involved

- *Linear disturbances: including the construction of highways, roads, winter roads, transmission lines, and pipelines;*
- *Extractive disturbances: including mining, gravel removal, quarrying, and land filling;*
- *Impoundment disturbances: including dams, reservoirs, and tailings ponds;*
- *Intensive land use disturbances: including industrial, residential, commercial, recreational, and land reclamation work, and use of heritage resources as tourist developments.*

- *Mineral, oil and gas exploration: establishment of camps, temporary airstrips, access routes, well sites, or quarries all have potential for impacting heritage resources.*

### **Types of Studies Undertaken to Preserve Heritage Resources**

**Overview:** An overview study of heritage resources should be conducted at the same time as the development project is being designed or its feasibility addressed. They usually lack specificity with regard to the exact location(s) and form(s) of impact and involve limited, if any, field surveys. Their main aim is to accumulate, evaluate, and synthesize the existing knowledge of the heritage of the known area of impact. The overview study provides managers with baseline data from which recommendations for future research and forecasts of potential impacts can be made. A Class I Permit is required for this type of study if field surveys are undertaken.

**Reconnaissance:** This is done to provide a judgmental appraisal of a region sufficient to provide the developer, the consultant, and government managers with recommendations for further development planning. This study may be implemented as a preliminary step to inventory and assessment investigations except in cases where a reconnaissance may indicate a very low or negligible heritage resource potential. Alternately, in the case of small-scale or linear developments, an inventory study may be recommended and obviate the need for a reconnaissance.

The main goal of a reconnaissance study is to provide baseline data for the verification of the presence of potential heritage resources, the determination of impacts to these resources, the generation of terms of reference for further studies and, if required, the advancement of preliminary mitigative and compensatory plans. The results of reconnaissance studies are primarily useful for the selection of alternatives and secondarily as a means of identifying impacts that must be mitigated after the final siting and design of the development project. Depending on the scope of the study, a Class 1 or Class 2 Permit is required for this type of investigation.

**Inventory:** A resource inventory is generally conducted at that stage in a project's development at which the geographical area(s) likely to sustain direct, indirect, and perceived impacts can be well defined. This requires systematic and intensive fieldwork to ascertain the effects of all possible and alternate construction components on heritage resources. All heritage sites must be recorded on Government of Nunavut Site Survey forms. Sufficient information must be amassed from field, library and archival components of the study to generate a predictive model of the heritage resource base that will:

- allow the identification of research and conservation opportunities;
- enable the developer to make planning decisions and recognize their likely effects on the known or predicted resources; and
- make the developer aware of the expenditures, which may be required for subsequent studies and mitigation. A Class 1 or 2 permit is required.

**Assessment:** At this stage, sufficient information concerning the numbers and locations of heritage resources will be available, as well as data to predict the forms and magnitude of impacts. Assessments provide information on the size, volume, complexity and content of a

heritage resource, which is used to rank the values of different sites or site types given current archaeological knowledge. As this information will shape subsequent mitigation program(s), great care is necessary during this phase.

**Mitigation:** This refers to the amelioration of adverse impacts to heritage resources and involves the avoidance of impact through the redesign or relocation of a development or its components; the protection of the resource by constructing physical facilities; or, the scientific investigation and recovery of information from the resource by excavation or other method. The type(s) of appropriate mitigative measures are dictated by their viability in the context of the development project. Mitigation strategies must be developed in consultation with, and approved by, the Department of Culture and Heritage. It is important to note that mitigation activities should be initiated as far in advance of the construction of the development as possible.

**Surveillance and monitoring:** These may be required as part of the mitigation program.

*Surveillance* may be conducted during the construction phase of a project to ensure that the developer has complied with the recommendations.

*Monitoring* involves identification and inspection of residual and long-term impacts of a development (i.e. shoreline stability of a reservoir); or the use of impacts to disclose the presence of heritage resources, for example, the uncovering of buried sites during the construction of a pipeline.