



SCREENING DECISION REPORT NIRB FILE No.: 15EN049

NPC File No.: 148149

January 18, 2016

Following the Nunavut Impact Review Board's (NIRB or Board) assessment of all materials provided, the NIRB is recommending that a review of Agnico Eagle Mines Ltd. (AEM) "Peter, Fox, and Parker Lakes" is not required pursuant to paragraph 92(1)(a) of the *Nunavut Planning and Project Assessment Act* (NuPPAA).

Subject to the Proponent's compliance with the terms and conditions as set out in below, the NIRB is of the view that the project proposal is not likely to cause significant public concerns, and it is unlikely to result in significant adverse environmental and social impacts. The NIRB therefore recommends that the responsible Minister(s) accepts this Screening Decision Report.

OUTLINE OF SCREENING DECISION REPORT

- 1) REGULATORY FRAMEWORK
- 2) PROJECT OVERVIEW & THE NIRB ASSESSMENT PROCESS
- 3) FACTORS FOR DETERMINING SIGNIFICANCE OF IMPACTS
- 4) RECOMMENDED PROJECT-SPECIFIC TERMS AND CONDITIONS
- 5) MONITORING AND REPORTING REQUIREMENTS
- 6) OTHER NIRB CONCERNS AND RECOMMENDATIONS
- 7) REGULATORY REQUIREMENTS
- 8) CONCLUSION

REGULATORY FRAMEWORK

The primary objectives of the NIRB are set out in Section 12.2.5 of the Nunavut Land Claims Agreement (NLCA) 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 confirmed under section 23 of the NuPPAA.

The purpose of screening is provided for under section 88 of the NuPPAA:

“The purpose of screening a project is to determine whether the project has the potential to result in significant ecosystemic or socio-economic impacts and, accordingly, whether it requires a review by the Board...”

To determine whether a review of a project is required, the NIRB is guided by the considerations as set out under subsection 89(1) of NuPPAA:

“89. (1) The Board must be guided by the following considerations when it is called on to determine, on the completion of a screening, whether a review of the project is required:

- (a) a review is required if, in the Board’s opinion,*
 - i. the project may have significant adverse ecosystemic or socio-economic impacts or significant adverse impacts on wildlife habitat or Inuit harvest activities,*
 - ii. the project will cause significant public concern, or*
 - iii. the project involves technological innovations, the effects of which are unknown; and*
- (b) a review is not required if, in the Board’s opinion,*
 - i. the project is unlikely to cause significant public concern, and*
 - ii. its adverse ecosystemic and socioeconomic impacts are unlikely to be significant, or are highly predictable and can be adequately mitigated by known technologies.”*

It is noted that subsection 89(2) provides that the considerations set out in paragraph 89(1)(a) prevail over those set out in paragraph 89(1)(b).

Where the NIRB determines that a project may be carried out without a review, the NIRB has the discretion to recommend specific terms and conditions to be attached to any approval of the project proposal. Specifically, paragraph 92(2)(a) of NuPPAA provides:

“92. (2) In its report, the Board may also
(a) recommend specific terms and conditions to apply in respect of a project that it determines may be carried out without a review.”

PROJECT OVERVIEW & THE NIRB ASSESSMENT PROCESS

1. Project Description

The proposed “Peter, Fox and Parker Lakes” project is located within the Kivalliq region, between 40 and 140 kilometres (km) northwest from Rankin Inlet. The Proponent intends to conduct exploration activities for gold mineralization. The program is proposed to take place annually from May to November 2016 through 2021.

According to the project proposal, the scope of the project includes the following works or activities:

- Exploration activities proposed to be typically conducted between May to November to include ground or aerial geophysical survey, prospecting and diamond drilling (on-land and on-ice drilling activities);
- Use of existing facilities at Meliadine site for the approximately 10 staff for approximately 30 days a year;
- Use of helicopters to move drills, fuel, equipment and workers;
- Drilling approximately 30 holes per year between a depth of 150 to 250 metres on average. The number of drill holes and depth could be adjusted depending on the results obtained during the drilling program;
- Use of water from local ponds or lakes for drilling activities;
- Use and storage of fuel from the existing Meliadine site for drilling activities with up to 40 L of gasoline, 3600 L of diesel, 2050 L of jet fuel and 200 pounds of propane stored at each active drill site;
- Use and storage of hazardous materials and chemicals including drilling additives with the associated wastes (hazardous and non-hazardous) returned to the Meliadine camp daily for proper disposal; and
- Completion of ongoing archaeological investigations within the planned exploration area.

2. Scoping

The NIRB has identified no additional works or activities in relation to the project proposal.

3. Key Stages of the Screening Process

The following key stages were completed:

Date	Stage
October 21, 2015	Receipt of project proposal from the NPC
October 21, 2015	Scoping pursuant to subsection 86(1) of the NuPPAA
October 30, 2015	Information request(s)
November 12, 2015	Proponent responded to information requests
November 13, 2015	Public engagement and comment request
December 1, 2015	Ministerial extension
December 4, 2015	Receipt of public comments
December 28, 2015	Proponent responded to comments/concerns raised by public
December 29, 2015	Request for clarification regarding responses
January 4, 2016	Proponent provided clarification

4. Public Comments and Concerns

From November 13, 2014 to December 4, 2015 the NIRB provided opportunity for the public to provide comments and concerns regarding the project proposal. The following is a summary of the comments and concerns received:

Government of Nunavut (GN):

Archaeological Comments

- Noted that site database indicated no archaeological sites were recorded within the proposed study area and no archaeological reconnaissance has been conducted in the proposed drilling areas. Department of Culture and Heritage recommended that:
 - An overview assessment of the three exploration areas be conducted by qualified personnel.
 - The archaeological permit and report for the proposed project be produced separately from the Meliadine report.
 - All land drill holes (including drill layout) and water-hose route be visually assessed by a qualified archaeologist prior to drilling.
 - All aircraft landing areas be visually inspected prior to landing or dropping any materials as not to interfere with potential archaeological features.

Environmental and Human Health Comments

- Could not provide comments on the following due lack of information in the application:
 - Whether the project was likely to cause significant adverse impacts on wildlife habitat or Inuit harvest activities as no assessment was provided.
 - Whether the project was likely to arouse significant public concern as no record of community consultations was not provided.
 - No cumulative effects assessment was provided.
- Noted that disturbances from the proposal may have the potential to impact sensitive life history stages for caribou and expressed concerns and recommendations as follows:
 - The proposed project area overlaps with critical calving, post calving areas and migration routes and provided maps showing the project overlap with migration corridors, rut range and winter range.
 - Disturbances from project activities have the potential to impact sensitive life stages for caribou and negatively impact the long-term survival of caribou.
 - Recommended seasonal restrictions be put in place on project activities to avoid risks to migrating and rutting caribou.
 - Recommended avoid critical and sensitive wildlife areas such as calving grounds at all times by choosing alternate flight corridors.
 - Recommended prohibition on all development within calving grounds and key access corridors, with seasonal restrictions on activities within post-calving grounds.
 - Recommended removing the portion of the proposed Parker Lake project area that extends into core calving grounds.
 - Provide an activity suspension plan which outlines the means for detecting concentrations of caribou, chain of commands for suspension of work, length in time to implement activity suspensions etc.
 - Provide a Caribou Mitigation and Monitoring Plan.
- Noted that a wildlife mitigation and monitoring plan was not provided.
- Noted current application did not recognize the need to avoid the potential impacts of their operations on caribou calving grounds.
- Noted recent caribou surveys have shown declining population trends since 2000 estimates are similar to those seen currently in other herds.

- Noted potential disturbance to all wildlife (caribou, muskoxen and birds) from project activities, specifically:
 - Potential interaction of muskox with project activities with potential displacement from calving areas could have negative effects on muskox breeding.
 - High probability of encounters with grizzly bears in the project area with bears attracted to human installations. Recommended proponent put in place plans to avoid human-bear conflicts, meet with local hunters to discuss local traditional knowledge of bears, and ensure staff are aware and trained in human-bear conflicts.
 - Potential disturbance of raptors and nesting raptors by project activities with *Species at Risk Act* listing species in the area to include Peregrine Falcon and Short-eared Owl. Avoidance of raptors nesting during critical periods is required with a minimum distance of at least 100 metres from a nest site recommended.
 - Aerial traffic interfering with wildlife movement, and recommended raising flight altitudes and the development of a mitigation and monitoring plan to reduce impacts to wildlife.
 - Monitoring and reporting of any wildlife sightings in the area during the time of operations with reports sent to the Wildlife Research department in Igloolik.

Indigenous and Northern Affairs Canada (INAC):

- Could not provide comments on several issues due to a lack of information in the application, specifically:
 - Could not provide comments on whether the project was likely to arouse significant public concern as no consultation has been conducted or the record of community consultations was not provided. Further, INAC recommended that the Proponent consult any potentially affected communities prior to the commencement of the project.
 - Information required regarding the use of “normally, flexible berms” as secondary containment facilities.
 - Absence of cumulative effects assessment in application limited options for feedback.
- Is confident that the potential impacts from the proposed project can be limited reduced or avoided through stringent implementation of mitigation measures.
- Additional information on the contingency plans was requested, specifically:
 - Wildlife mitigation and monitoring plan(s) were not provided for review of the potential impacts to wildlife from the proposals. This plan should be provided to assist with identifying impacts to all wildlife, including those used for country foods.
 - Clarification needed on the source of peat moss that would be used to absorb any petroleum products (as noted in the Spill Contingency Plans).
 - Clarification on the amount of aviation fuel stored on site.

Fisheries and Oceans Canada (DFO)

- Noted no additional approvals under the *Species at Risk Act* (SARA) would be required.

- Indicated that the proposal should not result in serious harm to fish or contravene sections of SARA as long as AEM implements the following required mitigation measures and follow the DFO measures.
- Reminded AEM that:
 - It is their responsibility to consult the DFO's website or a qualified environmental consultant if plans changed or the description of the proposal changes.
 - That it should notify DFO (*Duty to Notify*) if it has caused or is about to cause serious harm to fish.

Baker Lake Hunters and Trappers Organization (HTO)

- Believes that these projects are already having significant cumulative impacts and has caused public concern and believe that impacts will worsen unless new and stricter terms and conditions are applied.
- Noted that if AEM continues with these projects, and constructs further mines and access roads in the area, it could have a significant impact on the caribou herds and on the hunting rights of Baker Lake Inuit.
- Concerned about potential cumulative impacts of induced development from the operation of these projects.
- Recommended the following:
 - Project should have seasonal shutdowns during the migration season. There should be no aerial geophysical surveys, drilling or helicopter travel between Meliadine and other sites during the spring/summer migration season.
 - At all other times, halt project activities when caribou are nearby.
 - Nunavut regulators should find ways to limit the total amount of development that takes place in caribou post-calving grounds, to protect caribou herds from the induced development of these projects.

Aqigiq Hunters and Trappers Organization

- Believes that these projects are already having significant cumulative impacts and has caused public concern and believe that impacts will worsen unless new and stricter terms and conditions are applied.
- Recommended the following:
 - Aspects of the exploration projects should have seasonal shutdowns during the migration seasons. There should be no aerial geophysical surveys, exploratory drilling, or helicopter travel between Meliadine and other sites during migrations
 - All other project activities should be halted when caribou migrate through the area.

Kivalliq Wildlife Board (KWB):

Inuit Land Use and Heritage

- Noted that the project area includes areas of current and past Inuit Land Use.
- Recommended AEM provide a summary of the known heritage resources in the area (through western archeology and Inuit Qaujimajatuqangit), Inuit land use in/near the project area, and explain how it has changed project activities to mitigate the impacts on these heritage resources and Inuit land use.

- Noted importance of areas to the Baker Lake and Chesterfield Inlet Inuit for hunting and traditional activities.

Caribou and Caribou Habitat

- That the GN collar data, aspects of the project appear to lie within the calving grounds of the Qamanirjuaq caribou herd and post-calving is widely acknowledged as a particularly sensitive time in the caribou's lifecycle.
- Recommended the following:
 - Seasonal shutdowns of all project activities located within post-calving grounds during post-calving season should be required.
 - Seasonal restrictions should be imposed on some project activities during migration seasons (e.g., airborne geophysical surveys and other particularly disruptive activities should be prohibited during migration season, etc.).
 - All project activities should cease when caribou approach or migrate through the area.

5. Comments and Concerns with respect to Inuit Qaujimaningit

The following is a summary of the comments and concerns received with respect to Inuit Qaujimaningit:

Government of Nunavut (GN):

- Scientific research (including telemetry and monitoring) and *Inuit Qaujimajatuqangit* have clearly shown that barren ground caribou annually and predictably use core calving and post-calving habitats as they are known to offer spatial and temporal segregation from factors that may decrease survival, including predation and industrial activities.

Baker Lake Hunters and Trappers Organization (HTO)

- Noted that Qamanirjuaq caribou migrate through the project areas in the spring on their way to Chesterfield Inlet, Baker Lake, Kazan River, Pitz Lake and the Thelon River.
- Noted that the Qamanirjuaq caribou herd have not arrived in these areas in large numbers in the past few years. This may be partially due to disturbance to its migration routes from project activities.
- Noted that harvesting Qamanirjuaq caribou near these water bodies is central harvesting activity of Baker Lake Inuit.
- Noted that the post-calving period is a very sensitive period during the caribou lifecycles.

Kivalliq Wildlife Board (KWB)

- Noted that according to the Baker Lake and Chesterfield Inlet HTOs caribou herds including Qamanirjuaq caribou migrate through these areas during the late spring and late summer.
- Noted that the Qamanirjuaq caribou are important to Baker Lake and Chesterfield Inlet hunters. Additionally, as Baker Lake is an inland community, disruption to the herd's migration to the community could have a very significant impact on the local hunting economy.

6. Proponent's Response to Public Comments and Concerns

The following is a summary of the Proponent's response to concerns as received on December 28, 2015. On December 31, 2015 additional clarification regarding migratory birds was sought and was received on January 4, 2015:

General

- AEM to provide shapefiles associated with the proposed drilling area and noted that the final number of drill sites per location would be highly dependent on results obtained from the core analysis.
- Public consultation to be completed by AEM prior to start of proposal.
- Provided clarification that the proposed exploration activities would include up to 10 people during 30 days between May and November.
- No camp is planned on either crown land or Inuit Owned Land as the Meliadine exploration camp would be used to support the exploration works.

Culture, Heritage and Traditional Activities

- Outlined its archaeological assessment process, including communication with the GN and made related commitments.

Wildlife, Fish and Fish Habitat

- AEM submitted a Wildlife Protection and Response Plan that included proposed mitigation and reporting measures for caribou, muskox, migratory and raptors.
- AEM noted that pursuant to its Wildlife Protection and Response Plan a work cessation would be applied if caribou herds were observed near an exploration area, and predicted that with proposed caribou protection measures there would be no significant impacts on caribou herds.
- Commitments made related to mitigation and reporting measures for caribou, muskox, and migratory birds.
- AEM stated that exploration works could be conducted with low impact on the caribou by applying the mitigation measures proposed in the Wildlife Protection and Response Plan and by applying the caribou protection measures described in the Keewatin regional Land Use Plan.
- AEM included a description of the training planned for the workers and reactive procedures to be applied in case of encounters with wildlife (including bear) in the Wildlife Protection and Response Plan.
- Noted it is confident that there will be no significant impact on caribou herds by following the Keewatin Regional Land Use Plan protection measures and the Wildlife Protection and Response Plan.
- Noted that the exact period of exploration will be determined through the caribou protection measures and the wildlife protection and response plan and it stated that it would avoid working between May 15 and July 15.
- AEM noted that any future development (example mining), would have to be assessed in an Environmental Impact Statement (EIS) and cumulative impacts on the caribou herd would be included in that assessment.

Fuel and Chemical Storage

- Provided clarification that the flexible berm (e.g., instaberms) or rigid berms (i.e., using plastic or wood) would be utilized as secondary containment facilities.
- Provided clarification that the industrial bagged peat moss would be used as a hydrocarbon absorbent to absorb film of petroleum products.

FACTORS FOR DETERMINING SIGNIFICANCE OF IMPACTS

In determining whether a review of the project is required, the Board considered whether the project proposal had a potential to result in significant ecosystemic or socio-economic impacts.

Accordingly, the assessment of impact significance was based on the analysis of those factors that are set out under section 90 of NuPPAA. The Board took particular attention to take into account traditional knowledge and Inuit Qaujimaningit in carrying out its assessment and determination of the significance of impacts.

The following is a summary of the Board's assessment of the factors that are relevant to the determination of significant impacts with respect of this project proposal:

1. *The size of the geographic area, including the size of wildlife habitats, likely to be affected by the impacts.*

The size of the geographic area for the project proposal encompasses three exploration sites near the Proponent's existing Meliadine bulk sample area, also known as the Meliadine Gold Mine project which is completing its licencing phase. The proposed activities may take place within habitat for many far-ranging wildlife species, including areas that overlap the range of the Qamanirjuaq caribou herd. In addition, the proposed project would include helicopter-assisted mineral exploration taking place over mineral leases to transport equipment, fuel and personnel to drill sites.

2. *The ecosystemic sensitivity of that area.*

The proposed project would occur in an area with no particular identified ecosystemic sensitivity, with the exception of a portion of the exploration areas which would occur within the range of the Qamanirjuaq herd though activities would occur outside of the critical calving/key access corridor range.

This area has also been identified as having value and priority to local communities for:

- i. Caribou (critical calving and post calving areas, as well as migration routes),
- ii. General wildlife (migratory birds, and raptors), and
- iii. Muskox.

3. *The historical, cultural and archaeological significance of that area.*

The proposed project would occur northwest of Rankin Inlet and the project proponent did not indicate that there are any known areas of historical, cultural and archaeological significance associated with the project area. Should the project be approved to proceed, the

Proponent has committed to undertaking a further archaeological/paleontological survey at the recommendation of the Government of Nunavut.

4. *The size of the human and the animal populations likely to be affected by the impacts.*

The proposed project would occur 40 to 140 km from Rankin Inlet, the nearest community and as such no human populations are likely to be affected by project impacts. Terrestrial species at risk have been identified as potentially occurring within the project area and may be impacted by the project proposal.

5. *The nature, magnitude and complexity of the impacts; the probability of the impacts occurring; the frequency and duration of the impacts; and the reversibility or irreversibility of the impacts.*

As the “Parker, Peter and Fox Lakes” project is a proposed mineral exploration project, the nature of potential impacts is considered to be well-known, with potential for infrequent, localized impacts to the biophysical environment that are temporary in nature, reversible and mitigable with due care.

6. *The cumulative impacts that could result from the impacts of the project combined with those of any other project that has been carried out, is being carried out or is likely to be carried out.*

The proposed project areas would take place in proximity to other active mineral interests nearby (including advanced exploration) that are currently being explored and/or assessed by the Proponent. This includes the Meliadine Bulk Sample (NIRB File No. 10EA018), the Meliadine River – Mining Exploration (10EN006), Meliadine East Project (NIRB File No. 08EN043) and the Meliadine Gold Mine Project (NIRB Project Certificate No. 006).

Potential for cumulative impacts to caribou migration, muskox and general wildlife resulting from exploration activities (noise and presence of people and equipment), and transportation of equipment, fuel and personnel to exploration sites via helicopter has been identified and considered in development of the recommended mitigation measures set out in the following section. Further, this project proposal could induce additional exploration activities in the area.

7. *Any other factor that the Board considers relevant to the assessment of the significance of impacts.*

No other specific factors have been identified as relevant to the assessment of this project proposal.

In considering the factors as set out above in the screening of the project proposal, the NIRB has identified a number of issues and provides the following views regarding whether or not the proposed project has the potential to result in significant impacts, and has proposed terms and conditions that would mitigate the potential adverse impacts identified.

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 following project-specific terms and conditions have been recommended: 1-4.

1. Ecosystem, wildlife habitat and Inuit harvesting activities:

Issue 1: Potential negative impacts to caribou and caribou calving habitat from aerial geophysical surveys and daily transport of personnel, fuel and equipment to drill sites by helicopter.

Board views: As discussed above in the assessment of factors relevant to this project proposal, the proposed activities may take place within calving and/or post calving habitat for the Qamanirjuaq caribou herd. The impacts from the proposed project may be negative and the Proponent has committed to adhering to the Keewatin Regional Land Use Plan caribou protection measures and the Wildlife Protection and Response Plan as provided. AEM has also committed to minimum flight altitudes and seasonal restrictions and are expected to further mitigate potential adverse impacts to caribou through operational shutdowns if caribou are noted within the area (see Wildlife Protection and Response Plan). It is expected that any resulting impacts would be temporary in nature.

Noted Traditional Knowledge or Inuit Qaujimaningit: As noted by the GN, Baker Lake HTO and KWB *Inuit Qaujimajatuqangit* has shown that the project proposal is within the calving grounds of the Qamanirjuaq caribou herd. Additionally, the GN noted that the project around Peter Lake spatially overlap with post-calving habitat of the Qamanirjuaq caribou herd. The KWB has also noted the importance of the areas for hunting and traditional activities.

Recommended Mitigation Measures: It is recommended that the potential negative impacts may be mitigated by measures such as requiring the Proponent to maintain minimum flight altitudes and seasonal restrictions. The following terms and conditions are recommended to mitigate the potential adverse impacts: 20 through 27.

Issue 2: Potential negative impacts to wildlife and wildlife habitat and migratory birds from conducting project activities. This includes potential impacts from noise generated from ground or aerial geophysical survey, prospecting and diamond drilling activities, from daily transport of personnel, fuel and equipment to project sites by helicopter to drill sites. Further, cumulative impacts have also been identified.

Board views: The potential for impacts is applicable to a limited geographic area and the probability of impacts occurring is considered to be low, with potential adverse effects anticipated to be low in magnitude and it is unlikely that the proposed activities would interact significantly with identified wildlife and wildlife habitat. The Proponent has developed a Wildlife Protection and Response Plan that it committed to following. Specific and general measures have also been recommended to mitigate any potential negative impacts.

In addition, as discussed above in the assessment of factors, the proposed activities may have the potential for cumulative impacts to caribou migration, muskox and general wildlife from the exploration activities as the project proposal could induce additional exploration activities in the area.

The Proponent will be required to follow the *Migratory Birds Convention Act* and *Migratory Birds Regulations*. Further, the Proponent would be required to provide a finalized wildlife mitigation and monitoring plan (see Monitoring and Reporting Requirements) which would further address the impacts noted here and parties concerns.

Noted Traditional Knowledge or Inuit Qaujimaningit: The KWB has noted the importance of the areas for hunting and traditional activities.

Recommended Mitigation Measures: It is recommended that the potential negative impacts may be mitigated by measures such as requiring the Proponent to maintain minimum flight altitudes and seasonal restrictions. The following terms and conditions are recommended to mitigate the potential adverse impacts: 7, 10 and 14 through 23.

Further, recommendations have been made to the Nunavut Planning Commission, territorial and federal agencies, Regional Inuit Associations, co-management boards and industry to develop an action plan to identify and mitigate potential cumulative effects of human land use activities, including mineral exploration, on barren-ground caribou. The Board is also recommending that a plan be developed that identifies appropriate land use in these areas prior to potential mineral exploration (see Other NIRB's Concerns and Recommendations).

Issue 3: Potential negative impacts to surface and ground water quality and quantity, and fish and fish habitat from storage and use of fuel and drilling additives from drilling activities (on-land and on-ice).

Board views: The probability of negative impacts occurring is considered to be low, infrequent in occurrence and reversible in nature and while the magnitude of impacts resulting from a potential spill is unknown, the Proponent has provided a comprehensive spill contingency plan. The Proponent has also committed to conduct monitoring program related to the potential impacts from the exploration activities on the waterbodies.

Further, the Proponent will require a water licence from the Nunavut Water Board for the use of water for the project activities and for the storage of fuel (see Regulatory Requirements section).

Recommended Mitigation Measures: It is recommended that operational procedures for storing and transfer of materials, use of secondary containment, and spill response equipment would reduce the risk of uncontrolled releases of fuel or hazardous materials resulting in negative impacts to surface and ground water quality and quantity. Further, the potential negative impacts are also issues relevant for consideration by the Nunavut

Water Board. In addition, the following terms and conditions are recommended to mitigate the potential adverse impacts to waterbodies in addition to ensuring no wastes enter surrounding lakes or waterbodies from drilling activities: 5, 6, 8, 9, 11, 12, 13 and 30 through 39.

Issue 4: Potential negative impacts to vegetation, soils and land from storage and use of fuel and drilling additives from on-land drilling activities.

Board views: The potential for negative impacts is applicable to a small geographic area and the probability of impacts occurring is considered to be low, with potential adverse effects anticipated to be low in magnitude, infrequent in occurrence and reversible in nature. While the magnitude of impacts resulting from a potential spill is unknown, the Proponent has provided a comprehensive spill contingency plan.

Recommended Mitigation Measures: It is recommended that operational procedures for storing and transfer of materials, use of secondary containment, and spill response equipment would reduce the risk of uncontrolled releases of fuel or hazardous materials resulting in negative impacts to soils and vegetation. The following terms and conditions are recommended to mitigate the potential adverse impacts to the land in addition to ensuring that transportation occurs only during appropriate conditions and that site remediation activities are undertaken: 7, 11 through 13, 28, 29, 36, 37, 39, 40 and 41.

Socio-economic effects on northerners:

Issue 5: Potential negative impacts to historical, cultural and archaeological sites.

Board Views: The Proponent has provided a mitigation plan (see Proponent response to parties concerns) and committed to the protection of Inuit heritage sites in the area by conducting ongoing archaeological investigations. Further, the Proponent is required to contact the Culture and Heritage Department when encountering historical sites.

Recommended Mitigation Measures: The Proponent is required to follow the *Nunavut Act*. Term and condition 42 is recommended to ensure that available Inuit Qaujimaningit can inform project activities.

Issue 6: Continued potential positive socio-economic effect on northerners from employment opportunities as the Proponent has committed to continue to hire beneficiaries.

Board Views: It is noted that the Proponent will continue to hire local beneficiaries, which is considered a continued positive impact.

Recommended Mitigation Measures: Term and condition 42 has been recommended to ensure the Proponent continues to hire local people.

Issue 7: Potential negative impact to hunting areas or local routing to past and present Inuit land use areas due to helicopter traffic and drilling activities which could also have areas become temporarily unavailable for traditional use.

Board views: The areas identified for exploration activities are known for traditional land use activities, however, due to the low-intensity and intermittent nature of the proposed project components, standard measures would be expected to mitigate any potential negative impacts. The Proponent has noted that no new camp would be established for the proposed project and personnel would be working for approximately 30 days in the areas. AEM has committed to also consult with the community and the Rankin Inlet HTO to provide information on the project.

Noted Traditional Knowledge or Inuit Qaujimaningit: As noted by the KWB *Inuit Qaujimajatuqangit* has shown that the project proposal includes areas of current and past hunting and traditional land use.

Recommended Mitigation Measures: It is recommended that the potential negative impacts may be mitigated by measures such as requiring the Proponent to communicate with local organizations and be aware of locations commonly used for hunting so as to choose routes that do not interfere with local subsistence hunting. Term and condition 43 has been recommended to mitigate potential negative impacts to traditional land use activities and Inuit wildlife harvesting and term and condition 42 has been recommended to ensure local communities are consulted on the proposal.

Significant public concern:

Issue 8: No significant public concern was expressed during the public commenting period for this file.

Board Views: Follow up consultation and involvement of local community members is expected to mitigate any potential for public concern resulting from project activities.

Recommended Mitigation Measures: Term and condition 42 is recommended to ensure that the affected community and organizations are informed about the project proposal and to mitigate any concerns that may arise from the project activities.

Technological innovations for which the effects are unknown:

No specific issues have been identified associated with this project proposal.

In considering the above factors and subject to the Proponent's compliance with the terms and conditions necessary to mitigate against the potential adverse environmental and social effects, the Board is of the view that the proposed project is unlikely to cause significant public concern and its adverse ecosystemic and socioeconomic impacts are unlikely to be significant, or are highly predictable and can be adequately mitigated by known technologies.

RECOMMENDED PROJECT-SPECIFIC TERMS AND CONDITIONS

The Board is recommending the following specific terms and conditions to apply in respect of the project:

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 the Nunavut Planning Commission (Application to Determine Conformity, October 21, 2015), to the NIRB (NIRB Part 1 form, non-technical summary and PSIR on September 30, 2015; additional information submitted November 12, 2015 including NIRB Part 1 form in Inuktitut, Spill Contingency Plan and Waste Management Plan), the Indigenous and Northern Affairs Canada (Application for Class B Land Use Permit), and to the Nunavut Water Board Application (application for a new Water Licence, September 30, 2015).
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. 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.
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, unless otherwise authorized by the Nunavut Water Board.
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 barrelled fuel and chemicals at all locations.
12. The Proponent shall use drip pans or other equivalent device when refuelling equipment on-site. 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.
13. 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 - General

14. The Proponent shall ensure that there is no damage to wildlife habitat in conducting this operation.
15. 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.
16. 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.

Migratory Birds and Raptors Disturbance

17. 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.
18. The Proponent shall minimize activities during periods when birds are particularly sensitive to disturbance such as migration, nesting and moulting.
19. The Proponent shall ensure its aircraft avoid excessive hovering or circling over areas where bird presence is likely.

Aircraft Flight Restrictions

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.

Caribou and Muskoxen Disturbance

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 kilometre (km), or conduct any drilling operation within 5 km of any paths or crossings known to be frequented by caribou (e.g. designated caribou crossings).
27. During the period of May 15 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 all-terrain 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 snow mobiles and all-terrain vehicles, until caribou are no longer in the immediate area.

Ground Disturbance

28. 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. Overland travel of equipment or vehicles must be suspended if rutting occurs.
29. 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 waterbody.

Drilling on Land

30. 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.
31. The Proponent shall not allow any drilling wastes to spread to the surrounding lands or water bodies.
32. If an artesian flow is encountered, the Proponent shall ensure the drill hole is immediately plugged and permanently sealed.
33. 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.
34. 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.
35. 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.

36. 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

37. 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).
38. 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.
39. The Proponent shall ensure that all drill cuttings are removed from ice surfaces daily.

Restoration of Disturbed Areas

40. The Proponent shall remove all garbage, fuel and equipment upon abandonment.
41. 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

42. The Proponent should, to the extent possible, hire local people and consult with local residents regarding their activities in the area and available Inuit Qaujimaningit that can inform project activities.
43. The Proponent shall ensure that project activities do not interfere with Inuit wildlife harvesting or traditional land use activities.

MONITORING AND REPORTING REQUIREMENTS

In addition, the Board is recommending the following:

Community Consultation Report

- 1) The Proponent shall submit a public consultation report prior to the commencement of project activities. The report shall include a copy of materials presented to community members, a description of issues and concerns raised, and advice offered to the company as well as any follow-up actions that were required or taken to resolve any concerns expressed about the project proposal.

Annual Report

- 2) The Proponent shall submit a comprehensive annual report with copies provided to the Nunavut Impact Review Board and Government of Nunavut – Department of Environment, by March 31st of each year of permitted activities beginning March 31, 2017. The annual report must contain at least the following information:

- a) A summary of activities undertaken for the year, including:
 - i) a map showing the approximate location of drill sites;
 - ii) a map showing the location of the fuel caches;
 - iii) a description of local hires, contracting opportunities and initiatives;
 - iv) flight altitudes, frequency of flights and anticipated flight routes;
 - v) site photos;
- b) A summary of the overview assessment conducted of the exploration areas;
- c) A work plan for the following year, including any progressive reclamation work undertaken;
- d) A summary of community consultations undertaken throughout the year, providing copy of materials presented to community members, a description of issues and concerns raised, discussions with community members and advice offered to the company as well as any follow-up actions that were required or taken to resolve any concerns expressed about the project proposal;
- e) A log of instances in which community residents occupy or transit through the project area for the purpose of traditional land use or harvesting. This log should include the location and number of people encountered, activity being undertaken (e.g. berry picking, fishing, hunting, camping, etc.), date and time; and any mitigation measures or adaptive management undertaken to prevent disturbance;
- f) A discussion of issues related to wildlife and environmental monitoring, including the number of cease-work orders required as a result of proximity to caribou;
- g) A brief summary of Wildlife Monitoring and Mitigation Plan (WMMP) results as well as any mitigation actions that were undertaken. In addition, the Proponent shall maintain a record of wildlife observations while operating within the project area and include it as part of the summary report. The summary report based on wildlife observations should include the following:
 - (1) Locations (i.e., latitude and longitude), species, number of animals, a description of the animal activity, and a description of the gender and age of animals if possible.
 - (2) Prior to conducting project activities, the Proponent should map the location of any sensitive wildlife sites such as denning sites, calving areas, caribou crossing sites, and raptor nests in the project area, and identify the timing of critical life history events (i.e., calving, mating, denning and nesting).
 - (3) Additionally, the Proponent should indicate potential impacts from the project, and ensure that operational activities are managed and modified to avoid impacts on wildlife and sensitive sites.
- h) An analysis of the effectiveness of mitigation measures for wildlife as proposed in the WMMP;

- i) Summary of any heritage sites encountered during the exploration activities, any follow-up action or reporting required as a result and how project activities were modified to mitigate impacts on the heritage sites;
- j) Summary of its knowledge of Inuit land use in/near the project area and explain how project activities were modified to mitigate impacts on Inuit land use; and
- k) A summary of how the Proponent has complied with conditions contained within this Screening Decision, and all conditions as required by other authorizations associated with the project proposal.

OTHER NIRB CONCERNS AND RECOMMENDATIONS

In addition to the project-specific terms and conditions, the Board is recommending the following:

Bear and Carnivore Safety

1. The Proponent review the bear/carnivore detection and deterrent techniques outlined in “Safety in Grizzly and Black Bear Country” which can be downloaded from this link: http://www.enr.gov.nt.ca/sites/default/files/web_pdf_wd_bear_safety_brochure_1_may_2015.pdf. There are polar bear and grizzly bear safety resources available from the Government of Nunavut at the following link: <http://env.gov.nu.ca/wildlife/resources/polarbearsafety> and a “You are in Polar Bear Country” pamphlet from Parks Canada at the following link <http://www.pc.gc.ca/eng/lhn-nhs/mb/prince/securite-safety/ours-bear.asp> following link <http://www.pc.gc.ca/eng/pn-np/nu/auyuittuq/visit/visit6/d/i.aspx>.
2. Any problem wildlife or any interaction with carnivores should be reported immediately to the local Government of Nunavut, Department of Environment Conservation Office (Conservation Officer of Rankin Inlet, phone: 867-645-8084).

Species at Risk

3. The Proponent review Environment and Climate Change Canada’s “Environment Assessment Best Practice Guide for Wildlife at Risk in Canada”, available at the following link: http://epe.lac-bac.gc.ca/100/200/301/environment_can/cws-scf/environmental_assessment-ef/ea_best_practices_2004_e.pdf. The guide provides information to the Proponent on what is required when Wildlife at Risk, including *Species at Risk*, are encountered or affected by the project.

Migratory Birds

4. The Proponent review Canadian Wildlife Services’ “Key migratory bird terrestrial habitat sites in the Northwest Territories and Nunavut”, available at the following link: <http://publications.gc.ca/site/eng/317630/publication.html> and “Key marine habitat sites for migratory birds in Nunavut and the Northwest Territories”, available at the following link: <http://publications.gc.ca/site/eng/392824/publication.html>. The guide provides information to the Proponent on key terrestrial and marine habitat areas that are essential to the welfare of various migratory bird species in Canada.
5. For further information on how to protect migratory birds, their nests and eggs when planning or carrying out project activities, consult Environment and Climate Change

Canada's Incidental Take web page and the fact sheet "Planning Ahead to Reduce the Risk of Detrimental Effects to Migratory Birds, and their Nests and Eggs" available at <http://www.ec.gc.ca/paom-itmb/>.

Change in Project Scope

6. Responsible authorities or Proponent shall notify the NPC and the NIRB of any changes in operating plans or conditions, including phase advancement, associated with this project prior to any such change.

Caribou Management

7. Territorial and federal government agencies in Nunavut should work together with Regional Inuit Associations, co-management boards and industry to develop an action plan to identify and mitigate potential cumulative effects of human land use activities, including mineral exploration, on barren-ground caribou. This assessment of cumulative effects should occur at a regional scale (i.e., larger than individual project areas).
8. Territorial and federal government agencies update the Caribou Protection Map with updated data and information from the Beverly Qamanirjuaq Caribou Management Board (BQCMB).
9. As a result of expressed concerns regarding mineral exploration and the associated potential for cumulative effects on caribou and caribou habitat within the Kivalliq region, the Nunavut Planning Commission, territorial and federal government agencies should work together with Regional Inuit Associations, co-management boards, the public, and industry to develop a plan that identifies appropriate land use in these areas prior to potential mineral exploration. The plan should identify and mitigate potential cumulative effects of human land use activities on barren-ground caribou on both localized and regional scales.
10. The Nunavut Planning Commission should be aware of the public concerns regarding a perceived lack of protection for caribou and caribou habitat within the Kivalliq Region of Nunavut. In developing a Nunavut-wide land use plan, the NPC may wish to consider formalized protection of important caribou habitat, and seasonal restrictions on potentially disruptive activities in these areas to minimize disturbance to caribou lifecycles and Inuit harvesting activities.

Indigenous and Northern Affairs Canada

11. Indigenous and Northern Affairs Canada (INAC) impose mitigation measures, conditions and monitoring requirements pursuant to the Federal Land Use Permit, which require the Proponent to respect the sensitivities and importance of the area. These mitigation measures, conditions and monitoring requirements should be in regard to the location and area; type, location, capacity and operation of facilities; use, storage, handling and disposal of chemical or toxic material; wildlife and fisheries habitat; and petroleum fuel storage.
12. INAC consider the importance of conducting regular Land Use Inspections, pursuant to the authority of the Federal Land Use Permit, while the project is in operation. The Land Use Inspections should be focused on ensuring the Proponent is in compliance with the conditions imposed through the Federal Land Use Permit.

Kivalliq Inuit Association

13. The Kivalliq Inuit Association (KIA) impose strict mitigation measures and/or conditions upon the Proponent pursuant to the Inuit Owned Lands License in regard to fuel and chemical storage, drilling, water conditions, ground disturbance and wildlife on Inuit owned land.

Nunavut Water Board

14. The Nunavut Water Board (NWB) impose mitigation measures, conditions and monitoring requirements pursuant to the Water Licence, which require the Proponent to respect the sensitivities and importance of water in the area. These mitigation measures, conditions and monitoring requirements should be in regard to use of water, snow and ice; waste disposal; access infrastructure and operation for camps; drilling operations; spill contingency planning; abandonment and restoration planning; and monitoring programs.

REGULATORY REQUIREMENTS

The Proponent is also advised that the following legislation may apply to the project:

1. 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.
2. The *Fisheries Act* (<http://laws-lois.justice.gc.ca/eng/acts/F-14/index.html>).
3. The *Nunavut Waters and Nunavut Surface Rights Tribunal Act* (<http://www.canlii.org/ca/sta/n-28.8/whole.html>).
4. The *Migratory Birds Convention Act* and *Migratory Birds Regulations* (<http://laws-lois.justice.gc.ca/eng/acts/M-7.01/>).
5. The *Species at Risk Act* (<http://laws-lois.justice.gc.ca/eng/acts/S-15.3/index.html>). Attached in **Appendix A** is a list of Species at Risk in Nunavut.
6. The *Wildlife Act* (<http://www.canlii.org/en/nu/laws/stat/snu-2003-c-26/latest/snu-2003-c-26.html>) which contains provisions to protect and conserve wildlife and wildlife habitat, including specific protection measures for wildlife habitat and species at risk.
7. The *Nunavut Act* (<http://laws-lois.justice.gc.ca/eng/acts/N-28.6/>). The Proponent must comply with the proposed terms and conditions listed in the attached **Appendix B**.
8. 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.
9. The *Aeronautics Act* (<http://laws-lois.justice.gc.ca/eng/acts/A-2/>).

CONCLUSION

The foregoing constitutes the Board's screening decision with respect to the AEM's "Peter, Fox, and Parker Lakes".

Dated January 18, 2016 at Arviat, NU.



Elizabeth Copland, Chairperson

Attachments: Appendix A: Species at Risk in Nunavut
 Appendix B: Archaeological and Palaeontological Resources Terms and Conditions for Land Use
 Permit Holders

Appendix A: **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) to get the current status of a species.

Updated: June 2015

Species at Risk ¹	COSEWIC Designation	Schedule of SARA	Government Organization with Primary Management Responsibility ²
Eskimo Curlew	Endangered	Schedule 1	Environment and Climate Change Canada (ECCC)
Ivory Gull	Endangered	Schedule 1	ECCC
Ross's Gull	Threatened	Schedule 1	ECCC
Harlequin Duck (Eastern population)	Special Concern	Schedule 1	ECCC
Rusty Blackbird	Special Concern	Schedule 1	Government of Nunavut (GN)
Peregrine Falcon	Special Concern (<i>anatum-tundrius</i> complex ³)	Schedule 1 - Threatened (<i>anatum</i>) Schedule 3 – Special Concern (<i>tundrius</i>)	GN
Short-eared Owl	Special Concern	Schedule 3	GN
Red Knot (<i>rufa</i> subspecies)	Endangered	Schedule 1	ECCC
Red Knot (<i>islandica</i> subspecies)	Special Concern	Schedule 1	ECCC
Horned Grebe (Western population)	Special Concern	Pending	ECCC
Red-necked Phalarope	Special concern	Pending	ECCC
Buff-breasted Sandpiper	Special concern	Pending	ECCC
Felt-leaf Willow	Special Concern	Schedule 1	GN
Porsild's Bryum	Threatened	Schedule 1	GN
Peary Caribou	Endangered	Schedule 1	GN
Barren-ground Caribou (Dolphin and Union population)	Special Concern	Schedule 1	GN
Polar Bear	Special Concern	Schedule 1	GN/Fisheries, Oceans and the Canadian Coast Guard (DFO)
Grizzly Bear	Special Concern	Pending	GN
Wolverine	Special Concern	Pending	GN
Atlantic Cod, Arctic Lakes	Special Concern	Pending	DFO
Atlantic Walrus	Special Concern	Pending	DFO
Beluga Whale (Cumberland Sound population)	Threatened	Schedule 2	DFO
Beluga Whale (Eastern Hudson Bay population)	Endangered	Pending	DFO
Beluga Whale (Western Hudson Bay population)	Special Concern	Pending	DFO
Beluga Whale (Eastern High Arctic – Baffin Bay population)	Special Concern	Pending	DFO
Bowhead Whale (Eastern Canada – West Greenland population)	Special Concern	Pending	DFO
Bowhead Whale (Eastern Arctic population)		Schedule 2	DFO

Species at Risk ¹	COSEWIC Designation	Schedule of SARA	Government Organization with Primary Management Responsibility ²
Killer Whale (Northwest Atlantic / Eastern Arctic populations)	Special Concern	Pending	DFO
Narwhal	Special Concern	Pending	DFO

¹ The Department of Fisheries, Oceans and the Canadian Coast Guard has responsibility for aquatic species.

² Environment and Climate Change Canada (ECCC) 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.

³ The *anatum* subspecies of Peregrine Falcon is listed on Schedule 1 of SARA as threatened. The *anatum* and *tundrius* subspecies of Peregrine Falcon were reassessed by COSEWIC in 2007 and combined into one subpopulation complex. This subpopulation complex was assessed by COSEWIC as Special Concern.

Appendix B:
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:

	Types of Development (See Guidelines below)	Function (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*¹ to issue such permits.

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

¹ 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 *Nunavut Land Claims 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*², the federal government can make regulations for the protection, care and preservation of palaeontological and archaeological sites and specimens in Nunavut. Under

² s. 51(1)

the *Nunavut Archaeological and Palaeontological Sites Regulations*³, 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 Nunavut Land Claims 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.*

³ P.C. 2001-1111 14 June, 2001

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)

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, Language, Elders and Youth (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 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 Nunavut Land Claims 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*

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.