



SCREENING DECISION REPORT NIRB FILE No.: 17EA068

Related to NIRB File No: 16EN035
NPC File No. 148647

March 23, 2018

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.'s "Huckleberry Exploration" project proposal is not required pursuant to paragraph 92(1)(a) of the *Nunavut Planning and Project Assessment Act*, S.C. 2013, c. 14, s. 2 (*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 accepts this Screening Decision Report.

OUTLINE OF SCREENING DECISION REPORT

- 1) REGULATORY FRAMEWORK
- 2) PROJECT REFERRAL
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- 6) RECOMMENDED PROJECT-SPECIFIC TERMS AND CONDITIONS
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REGULATORY FRAMEWORK

The primary objectives of the NIRB are set out in Section 12.2.5 of the *Agreement between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in right of Canada* (*Nunavut Agreement*) and are confirmed by section 23 of the *NuPPAA*:

Nunavut Agreement, Article 12, Section 12.2.5: 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.

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

NuPPAA, s. 88: 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*:

NuPPAA, s. 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) of the *NuPPAA* provides that the considerations set out in paragraph 89(1)(a) prevail over those set out in paragraph 89(1)(b) of the *NuPPAA*.

As set out under subsection 92(1) of the *NuPPAA*, upon conclusion of the screening process, the Board must provide its written report the Minister:

NuPPAA, s. 92(1): The Board must submit a written report to the responsible Minister containing a description of the project that specifies its scope and indicating that:

- (a) a review of the project is not required;
- (b) a review of the project is required; or
- (c) the project should be modified or abandoned.

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 pursuant to paragraph 92(2)(a) of *NuPPAA* as follows:

NuPPAA, s. 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 REFERRAL

On November 22, 2017 the NIRB received a referral to screen Agnico Eagle Mines Ltd.'s (Agnico Eagle, or Proponent) "Huckleberry Exploration" project proposal (on behalf of John Tugak) from the Nunavut Planning Commission (NPC or Commission), with an accompanying positive conformity determination with the Keewatin Regional Land Use Plan. The NPC noted that a previous conformity determination issued on June 1, 2016 for the activities associated with the current proposal continues to apply and determined that the project proposal is a significant modification to John Tugak's 2016 prospecting and staking proposal because the exploration camp activities relate to the same areas.

Pursuant to Article 12, Sections 12.4.1 and 12.4.4 of the *Nunavut Agreement* and section 87 of the *NuPPAA*, the NIRB commenced screening this project proposal and assigned it file number 17EA068.

PROJECT OVERVIEW & THE NIRB ASSESSMENT PROCESS

1. Project Scope

The proposed "Huckleberry Exploration" project is located within the Kivalliq region, approximately 65 kilometres (km) west of Whale Cove, 110 km north of Arviat, and 115 km southwest of Rankin Inlet. The Proponent intends to conduct mineral exploration at the "Huckleberry-0001" property.^{1,2} The program is proposed to take place seasonally between April and October from 2018 to 2025.

As required under subsection 86(1) of the *NuPPAA*, the Board accepts the scope of the "Huckleberry Exploration" project as set out by Agnico Eagle in the proposal. The scope of the project proposal includes the following undertakings, works, or activities:

- Conduct prospecting, airborne and ground-based geophysical surveys;
- Conduct on-land and on-ice drilling with the use of one (1) diamond drill and one (1) rab drill;
- Conduct trenching activities (bedrock exposition by overburden removal);
- Establishment of exploration camp and associated facilities to accommodate twenty (20) personnel;
- Use of two (2) helicopters and one (1) Twin Otter plane to transport material, equipment, and personnel to site and the use of one (1) helicopter to transport personnel and equipment to drill sites;
- Use of a D6 bulldozer and mini excavator to move the diamond drill during the winter around drill sites;
- Use of existing airstrip approximately 400 metres (m) long;

¹ The Huckleberry-0001 property is one of four claims included in John Tugak's project proposal screened by the NIRB in 2016 (NIRB File No. 16EN035).

² Historic exploration activities were conducted on this property by a previous Proponent but these activities were not assessed by the NIRB.

- Winter access from the Meliadine Gold Mine and from Whale Cove area to transport drills and dozer and other material and equipment on an annual basis using three (3) tracked Challenger tractors;
- Use of two (2) all-terrain vehicles (ATVs) and two (2) snowmobiles to transport personnel around site;
- Transportation, storage and use of 107,000 litres (L) of diesel, 4,100 L of gasoline, and 41,000 L of aviation fuel;
- Transportation, storage and use of chemicals and oil;
- Daily withdrawal of up to 299 cubic metres (m³) of water from surrounding waterbodies for camp use and drilling activities;
- Domestic wastes to be incinerated with a standard dual chamber incinerator, or transported offsite to appropriate facility;
- Greywater and drill cuttings to be disposed of in a natural depression;
- Sewage to be incinerated with a standard dual chamber incinerator, or transported south for disposal at authorized facility; and
- Hazardous and non-combustible wastes to be transported south for disposal at accredited facilities.

2. Inclusion or Exclusion to Scoping List

The NIRB has identified no additional works or activities in relation to the project proposal. As a result, the NIRB proceeded with screening the project based on the scope as described above. The NIRB however notes that previous prospecting and staking activities in the area were assessed under NIRB File 16EN035 but the activities are sufficiently unrelated to the proposed works or activities based on the scope described above.

3. Key Stages of the Screening Process

The following key stages were completed:

Date	Stage
November 22, 2017	Receipt of project proposal and positive conformity determination (Keewatin Regional Land Use Plan) from the NPC
November 23, 2017, December 6, 2017	Information requests
December 4, 2017 December 12, 2017	Proponent responded to information request(s)
December 12, 2017	Scoping pursuant to subsection 86(1) of the <i>NuPPAA</i>
December 13, 2017	Public engagement and comment request
January 12, 2018	Receipt of public comments
January 22, 2018	Proponent provided with an opportunity to address comments/concerns raised by public
February 16, 2018	Ministerial extension requested from the Minister of Crown – Indigenous Relations and Northern Affairs
March 2, 2018	Proponent responded to comments/concerns raised by public
March 5, 2018, March 15, 2018	Receipt of additional public comments

4. Public Comments and Concerns

Notice regarding the NIRB's screening of this project proposal was distributed on December 12, 2017 to community organizations in Whale Cove, Rankin Inlet, and Arviat, as well as to relevant federal and territorial government agencies, Inuit organizations and other parties. The NIRB requested that interested parties review the proposal and provide the Board with any comments or concerns by January 12, 2018 regarding:

- Whether the project proposal is likely to arouse significant public concern; and if so, why;
- Whether the project proposal is likely to cause significant adverse eco-systemic or socio-economic effects; and if so, why;
- Whether the project proposal is likely to cause significant adverse impacts on wildlife habitat or Inuit harvest activities; and if so, why;
- Whether the project proposal is of a type where the potential adverse effects are highly predictable and mitigable with known technology, (and providing any recommended mitigation measures); and
- Any matter of importance to the Party related to the project proposal.

The following is a summary of the comments and concerns received by the NIRB:

Kivalliq Inuit Association (KIA)

- Concerns with respect to wildlife and their habitat, heritage resources in the area, traditional uses of land, Inuit harvesting activities, and community involvement and consultation.
- Recommended the Proponent conduct community consultation.
- Noted that the proposed activities are in caribou herd calving grounds and KIA cannot support the project until community consultation is conducted and community concerns are addressed.

Government of Nunavut (GN)

- Noted the proposed project location is within calving and post calving habitat for the Qamanirjuaq caribou, which are of critical importance for maintaining healthy caribou herds.
- Noted that habitat modification through permanent works/infrastructure, consistent disturbance, and cumulative fragmentation may result in serious negative impacts to caribou herd demography or population size.
- Recommended project activities do not take place from June 9 to July 3 each year to prevent disturbances to Qamanirjuaq caribou during the calving and post-calving periods.
- Recommended that no permanent infrastructure including roads, trails, airstrips, and buildings, be installed within the calving grounds and that the site be completely remediated when activities are complete.
- Requested clarification on the type of ammunition and/or weapon that would be used for euthanizing all medium and large game and referenced the *Nunavut Wildlife Act* that list of prohibited means to destroy large wildlife. Further, provided indication on what type of ammunition should be used for euthanizing small game.

- Requested clarification of how greywater / wastewater would be managed in order to minimize attraction of wildlife, noting that wastewater should be stored far from where workers are present and that ideally a physical barrier should be used.
- Recommended the Proponent contact the Department of Health, Environmental Health Officer to ensure adequate review of the proposed camp's food and drinking water systems.

Fisheries and Oceans Canada (DFO)

- Noted that not enough information was provided by the Proponent to evaluate potential impacts of the project on fish and fish habitat.
- Requested further details of the waterbodies from which water would be taken, including their location, volume / flow, fish and fish habitat.

Environment and Climate Change Canada (ECCC)

- Recommended a Waste Management Plan be provided as information appeared to be lacking regarding the management of different types of waste including camp greywater, incineration, hazardous materials, pacto toilet waste and drill cuttings.

Indigenous and Northern Affairs Canada (INAC)

- Noted that unable to comment on whether the amended project is likely to arouse significant public concern, given the broader scope of the current proposal and the lack of community consultation/engagement activities presented.
- Recommended the Proponent conduct public consultations in Whale Cove, Arviat and Rankin Inlet prior to commencement of project activities, should the project be approved to proceed.
- Recommended the Proponent assess the potential for cumulative ecosystemic and socioeconomic impacts due to the change in the scale and scope of the current proposal compared to the original prospecting and staking project submitted in 2016.

Hamlet of Whale Cove

- Noted concern with respect to water quality, terrain, wildlife and their habitat (including marine mammals, birds, and fish), heritage resources, traditional land uses of land, Inuit harvesting activities, and community involvement and consultation.
- Recommended flight restrictions and mobile protection measures around caribou, and requested that water quality is maintained, fuels are properly stored, land disturbance is minimized, and that there is no restriction to traditional/recreational use/access to the area, and that heritage resources are reported.
- Expressed support for the Project, provided the Proponent ensure that Whale Cove residents and businesses are supported.
- Recommended the Proponent regularly consult and update the Whale Cove Hamlet and the HTO on plans and activities.
- In a follow-up comment, the Hamlet confirmed support for the Project, noting it is satisfied the project would occur outside of calving grounds and it understands there would be associated employment and business opportunities.
- In correspondence with the KIA, the Hamlet encouraged the KIA to reconsider allowing mineral exploration in the project area, noting that the Proponent's proposed wildlife

protection measures have proven effective in other projects in the region, and highlighting the employment benefits for Inuit should a mine eventually open in the area.

Arviat Hunters and Trappers Organization (HTO)

- Noted it is in full support of the proposed project and would like to hire two (2) local people to monitor and ensure all conditions given are followed.
- Noted the people of Arviat would like to continue to have rights and access to harvest caribou and fish in the area.

Baker Lake Hunters and Trappers Organization (HTO)

- Commented that it does not support the Project due to its location within caribou calving grounds and indicated that the proposal should be abandoned.
- Noted concern about impacts on an important food source for communities in northern Manitoba, northern Saskatchewan, Northwest Territories, and Nunavut.
- Noted that caribou is critical to the physical and cultural well-being of Inuit.
- Expressed concern that exploration activities are being proposed within critical wildlife areas, that the activities can be ongoing for many years and can have lasting effects on caribou, which in turn impacts the health of Inuit.
- Requested a moratorium on mining exploration and development within caribou calving and post calving grounds, and near water crossings until there is evidence that the caribou herd populations are no longer in decline.

Issatik (Whale Cove) Hunters and Trappers Organization (HTO)

- Expressed support for the Project, noting its understanding that the planned activities would occur in an area that is on the migratory route to caribou calving grounds, and not within the calving grounds.
- Requested that two (2) local monitors be used to ensure all conditions given are followed.

Kangigliniq (Rankin Inlet) Hunters and Trappers Organization (HTO)

- Noted that the proposed activities are in the Qamanirjuaq caribou herd calving grounds and expressed concerns that the Proponent had not undertaken community consultations within the Kivalliq region and thus community concerns cannot be not fully known.

Athabasca Denesuline Né Né Land Corporation (ADNLC)

- Expressed serious concerns that the proposed activities are located in the Qamanirjuaq barren-ground caribou herd's calving grounds.
- Expressed concern that the project will have a direct impact on the caribou herd and potentially the Athabasca Denesuline communities that rely on the caribou for substance. Further noted that industrial activity and development is the first and foremost activity that causes impacts to caribou.
- Noted that the barren-ground caribou are listed as threatened by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC).
- Noted that the herds are in decline and emphasized that the Precautionary Principle be followed and that no permits be issued for disturbances to the calving grounds.
- The ADNLC requested that :

- The NIRB not issue a permit for this proposal, and for any other exploration or development within traditional barren-ground caribou calving grounds, the risks are too high.
- If NIRB goes against our request, and issues a permit, we would like this project proposal to go through a Part 5 Review. We would request to participate in this comprehensive review.
- Cumulative impacts need to be considered on a larger scale, and consider impacts from climate change.

Beverly and Qamanirjuaq Caribou Management Board (BQCMB)

- Noted the Proposal is in the core area of the traditional calving ground of Qamanirjuaq Caribou and that long-term legislated protected areas that exclude industrial activities must be established for calving and post-calving areas. In absence of this protection, BQCMB recommended that proposals for exploration and development on these areas be rejected.
- Noted that the Qamanirjuaq Caribou herd is the largest herd in Canada and stressed the great importance of this herd to Indigenous and other people across the caribou range who rely on the harvest of this herd, including communities in the Kivalliq Region of Nunavut, northern Manitoba, and northern Saskatchewan.
- Strongly urged the NIRB to recognize that effective protection of caribou is critical to both the ecological and socio-economic future of these regions at a time when:
 - Vulnerability of the herd is high;
 - Abundance is significantly declining; and
 - Cumulative effects, including disturbance will seriously and negatively impact northern barren-ground caribou Herds.
- Noted that the Qamanirjuaq herd is in decline based on several surveys conducted since 2008 and that the Precautionary Principle must be applied when making decision.
- Noted that protection of critical caribou range, in particular calving grounds, is critical to the ecological and socioeconomic future of the Kivalliq region, northern Manitoba, the Northwest Territories, and northern Saskatchewan.
- Noted that based on community visits and special workshops, communities in the Kivalliq region have made the BQCMB aware that they are opposed to exploration and development on the Qamanirjuaq Calving grounds. Further, BQCMB noted that the Kivalliq Inuit Association has advised that it does not support permit issuance on calving grounds until the Nunavut Land Use Plan is approved.
- Recommended that no exploration or development activities be permitted on the calving ground of the Qamanirjuaq Caribou Herd even if the activities occur outside of the calving period, noting that exploration often results in subsequent development.
- The BQCMB stressed that it does not agree with permitting exploration activities on calving and post-calving areas, and recommended that the current application not be approved.
- Recommended that should the project proposal not be rejected, a Part 5 Review should be conducted whereby all interested parties have the opportunity to present their views.
- Recommended that cumulative effects should be assessed over a broader, regional area.

World Wildlife Fund (WWF) Canada

- Noted the importance of the Qamanirjuaq herd as an essential resource for Indigenous communities in Nunavut, northern Manitoba, and northern Saskatchewan.
- Noted that the Qamanirjuaq caribou herd is in decline and is subject to a variety of cumulative impacts.
- Recommended that the calving ground habitat of barren-ground caribou be off-limits to all exploration projects, because the goal of exploration is to progress to the development stage with permanent infrastructure, and future large-scale development projects would be incompatible with those areas.
- Commented that both scientific knowledge and Inuit Qaujimajatuqangit agree that disturbing caribou during calving can lead to calf abandonment and lower caribou populations.
- Noted that barren-ground caribou were recently assessed as Threatened by COSEWIC.
- Recommended that a public review of the project is necessary to hear from all potentially affected communities both within and outside of Nunavut.

5. Comments and Concerns with respect to Inuit Qaujimaningit, Traditional, and Community Knowledge

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

Athabasca Denesuline Né Né Land Corporation (ADNLC)

- Noted that Athabasca Denesuline culture, history, and way of life are highly dependent on the health of barren-ground caribou herds.
- Noted that the Athabasca Denesuline Elders, through traditional knowledge, indicate that any activity that causes stress, or results in a change of usual behaviour and/or diversion of the migratory path of the caribou, can impact on the health and condition of these animals.
- Expressed concern that the area that the project is located in is heavily used by caribou during the critical time of calving and post-calving.

Baker Lake Hunters and Trappers Organization (HTO)

- Noted that the Qamanirjuaq herd has not been seen to reach Baker Lake for the last five (5) or more years.
- Noted that it is the knowledge of their ancestors combined with observed changes that informs their submission.
- Remarked that historically Inuit of the region experience times when wildlife were scarce, but after a time the caribou returned.
- Commented that Inuit, Denesuline and others have depended upon these areas for their primary source of protein for millennia.

6. Proponent's Response to Public Comments and Concerns

The following is a summary of the Proponent's response to concerns as received on March 2, 2018:

- In response to the comments regarding lack of public consultation, the Proponent noted the following:
 - Met with Whale Cove Hamlet and representatives on October 11, 2017 and February 13, 2018, and has agreed to hold bi-monthly meetings in the future to keep the community informed. Further, the Proponent highlighted the Hamlet's support of the project.
 - Met with the Issatik (Whale Cove) HTO on February 9, 2018 and the HTO requested Agnico Eagle hire two (2) local wildlife monitors. Further, the Proponent noted that the HTO was in support of the project.
 - Met with the Mayor of Arviat and Hamlet's administration on February 15, 2018 and noted that the Hamlet was committed to a partnership with Agnico Eagle to enhance training to meet employment needs in the community.
 - Anticipates meeting with the community of Rankin Inlet in March 2018.
- In response to comments regarding waste management, the Proponent developed and provided a Waste Management Plan for the project.
- In response to DFO's concerns regarding the limited information provided regarding fish and fish habitat in reference to water withdrawal, Agnico Eagle provided a summary of the mitigative actions it would take to ensure protection of waterbodies including fish habitat.
- In response to concerns about activities taking place within caribou calving grounds, the Proponent emphasized that according to the spatial data included in the 2016 Draft Nunavut Land Use Plan, the proposed project would not be located within the calving grounds, but rather in the post-calving area. Agnico Eagle added that when it met with the Issatik (Whale Cove) HTO in February 2018 the HTO described the location as occurring within an area used by caribou during migration but not within the calving grounds. Further, the Proponent added that the Hamlet of Whale Cove's comments on the proposal submitted to the NIRB on February 9, 2018 included the same observation.
- In response to general concerns regarding caribou, Agnico Eagle provided a project-specific caribou protection plan and summarized its mobile caribou protection measures that involve the shut-down of activities when a caribou herd approaches. The Proponent highlighted its participation in the regional caribou collar monitoring program in collaboration with the GN, and noted the caribou data collected help reduce the risk of disrupting caribou.

7. Time of Report Extension

As a result of the time required to allow parties sufficient time to comment on the project as well as to let the Proponent provide a response to the comments, and given the public commenting period overlapped with the holiday season, the NIRB was not able to provide its screening decision report to the responsible Minister within 45 days as required by Article 12, Section 12.4.5 of the Nunavut Agreement and subsection 92(3) of the NuPPAA. Therefore, on December 13, 2017 the NIRB wrote to the Minister of Crown - Indigenous Relations, seeking an extension to the 45-day timeline for the provision of the Board's Report. On February 16, 2018 the NIRB sent an update letter to the Minister as a courtesy noting that the screening process was still ongoing given multiple late submissions from interested parties and requests by the Proponent for additional time to respond.

In determining whether a review of the project is required, the Board considered whether the project proposal had 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 the *NuPPAA*. The Board took particular care to take into account Inuit Qaujimaningit, traditional and community knowledge 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 proposed mineral exploration activities would occur approximately 65 kilometres (km) west of Whale Cove, 110 km north of Arviat, and 115 km southwest of Rankin Inlet. The total area of the Huckleberry-0001 mineral claim is approximately 35 square kilometres (km²), which would include a 20-person exploration camp at the site of a previous exploration camp, and an existing airstrip approximately 400 m long. The proposed project footprint also includes a winter access trail approximately 313 km long and less than 6 m wide. The proposed project activities may take place within habitat for the Qamanirjuaq caribou, muskox, wolves, wolverine, Arctic fox, Arctic hare, migratory and non-migratory birds, and Species at Risk such as Polar Bear as identified by the Proponent, the Government of Nunavut and the Nunavut Planning Commission (NPC) mapping sources. The project may potentially affect animal migratory patterns.

2. *The ecosystemic sensitivity of that area.*

The area of the proposed project, including where the winter trail would pass, has been identified as having value and priority to the communities of Whale Cove, Arviat, Rankin Inlet, and Baker Lake for:

- i. Fish and fish habitat (Arctic char);
- ii. Terrestrial wildlife (caribou, muskox, wolves, and wolverine); and
- iii. Drinking water.

The proposed project would occur within the range of the Qamanirjuaq caribou herd, specifically within the calving and post-calving grounds as identified by the Beverly and Qamanirjuaq Caribou Management Board and the Government of Nunavut, and within a Caribou Protection Area designated in the Keewatin Regional Land Use Plan. A letter of support provided by the Issatik (Whale Cove) HTO disputes that this area is used by calving caribou, indicating their understanding that the area is used primarily by migrating caribou only. Within its Wildlife Protection and Response Plan for the project, the Proponent has committed to following the caribou protection measures outlined within the Keewatin Regional Land Use Plan.

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

Neither the Proponent nor any parties that submitted comments for this project identified any known areas of historical, cultural and archaeological significance associated with the project area. It should be noted that online community mapping data from the NPC indicates the area of mineral exploration is near a historic Hudson Bay Company building, and that the proposed winter access trail would cross near a traditional camping area with tent rings and sod houses. Should the project be approved to proceed, the Proponent would be required and has committed to conduct an archaeological assessment of the project area, and to contact the Government of Nunavut-Department of Culture and Heritage if any sites of historical, cultural or archaeological significance are encountered.

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

During the commenting period, it was noted that there is potential for impacts to the Qamanirjuaq caribou herd and that these caribou are very important to the way of life for Indigenous people from the Kivalliq region and other regions of Nunavut, the Northwest Territories, northern Manitoba, and northern Saskatchewan. Additionally, as discussed above, NPC's online community values mapping data shows that the area has been identified as very important for caribou hunting to community members from Whale Cove, Arviat, and Rankin Inlet. The proposed project could result in adverse impacts to traditional pursuits as community members in the Kivalliq region may use areas in proximity to the proposed project area for traditional activities such as hunting, fishing and camping.

No other specific animal populations have been identified as likely to be affected by potential project impacts. As activities associated with the proposed winter access will be limited to the winter and early spring months, the probability of adverse impacts to migratory birds are considered to be low as these wildlife are likely to be located in wintering habitats in the southern regions during the timing of activities associated with the establishment and use of the winter access trail.

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 "Huckleberry Exploration" project is a proposed mineral exploration program involving prospecting, drilling, and trenching, the nature of potential impacts is considered to be well-known. Direct impacts to the physical environment and to wildlife habitat will be localized, of medium magnitude, and restricted to particular seasons. However, due to the mineral claim being within calving and post-calving habitat for the Qamanirjuaq caribou herd, potential impacts to caribou are somewhat uncertain and have the potential to be longer lasting and broader in scope. Mitigation measures for the protection of critical life stages of the herd may be necessary.

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 current project proposal would take place at the site of a historic exploration project. There is a pre-existing portal, airstrip, and some waste such as old fuel drums and scrap metal distributed around the site, and possibly contaminated soils. The Proponent has indicated in its proposal that it will minimize disturbance by re-using the existing airstrip and basing its exploration camp in the previously disturbed area. The Proponent further indicated it will work with the Kivalliq Inuit Association and other stakeholders to fully understand the impacts of the historical activities and discuss the possibility of progressive reclamation of the historical impacts.

The proposed project would also occur within a 100 km of a number of other exploration and development projects that are currently active, in addition to other projects proposed and currently undergoing assessment with the Board, listed in Table 1 below. The potential for cumulative impacts to water and soil quality, wildlife and wildlife habitats, as well as freshwater fish and habitats resulting from the mineral exploration activities and other projects occurring within 100 km have been considered during the development of the NIRB's recommendations. Terms and conditions recommended for each of these projects are expected to reduce any residual impacts, and as such would limit or eliminate the potential for cumulative effects to occur.

It is noted that during the public commenting period, concerns were raised about the potential for cumulative effects to caribou at a broader scale. The NIRB recommends that industry, federal and territorial governments, Regional Inuit Associations, HTOs, and other stakeholders work together to identify and mitigate cumulative effects on barren-land caribou at regional scales (see Other NIRB Concerns and Recommendations section).

Table 1: Project List

NIRB Number	Project	Project Title	Project Type
<i>Active Developments</i>			
16YN040		Western Hudson Bay Geoscience for Infrastructure	Scientific Research
08EN052		Angilak Project	Mineral Exploration
11EN027		Pistol Bay	Mineral Exploration
16EN049		Tagak	Mineral Exploration
16EN045		Huckleberry Claim	Mineral Exploration

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.

Views of the Board

In considering the factors as set out above in the screening of the project proposal, the NIRB has identified a number of issues below and respectfully provide the following views regarding whether or not the proposed project has the potential to result in significant impacts. In addition, the NIRB 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.

Ecosystem, wildlife habitat and Inuit harvesting activities:

Issue 1: Potential adverse impacts to caribou (Qamanirjuaq caribou herd) and muskox from the sensory disturbance (including noise) associated with aerial surveys, from transportation of personnel and equipment with helicopters, fixed-wing aircraft, ATVs and snowmobiles, use of a winter access trail, establishment of a temporary camp and from exploration activities including prospecting, drilling and trenching.

Board views: The proposed project has the potential to disturb caribou in calving and post-calving of the Qamanirjuaq caribou herd as well as muskox. The Board also notes that during the public commenting period, concerns were raised regarding the potential for cumulative impacts on a broad scale, and further concerns that the project could induce additional exploration and mineral development activities in the region.

However, as discussed above in the assessment of factors relevant to this project proposal, the project footprint is limited to a small geographic area. The potential impacts to caribou and muskox are considered to be infrequent and of moderate magnitude due to the seasonal (April to October) nature of the proposed activities and the mitigation measures proposed by the Proponent, including ceasing activities when a group of caribou or muskox are near. The Proponent would be required to follow the *Species at Risk Act*, the *Wildlife Act (Nunavut)*, and has committed to adhering to the caribou protection measures within the Keewatin Regional Land Use Plan. The Proponent has provided a Wildlife Protection and Response Plan, which details its required and proposed mitigative actions. The Proponent has also committed to continue working with the GN to gather and analyze caribou collaring data.

Noted Inuit Qaujimaningit, traditional or community knowledge: As noted during the commenting period by parties, Inuit, Athabasca Denesuline and other Indigenous groups have traditionally depended upon caribou as an important food source, and caribou are central to the cultural and physical well-being of these groups.

Recommended Mitigation Measures: It is recommended that the potential adverse impacts to caribou and muskox be mitigated by measures such as requiring the Proponent to cease activities that may interfere with the migration or calving of caribou or muskox until the

caribou and/or muskox have left the area, by placing altitude restrictions on aircraft, and by requiring efforts to minimize noise. The NIRB is also recommending that the Proponent retain independent wildlife monitors to undertake monitoring for caribou and to ensure compliance with the wildlife protection measures. Accordingly, the NIRB is recommending terms and conditions 26 through 30, 31 through 35, and 37.

The Board is also recommending that the Proponent conduct ongoing public consultation and provide an annual report that includes wildlife observations and an evaluation of the success of the mitigative measures applied (see Monitoring and Reporting Requirements section below). The Board is further recommending federal and territorial governments work with industry, Regional Inuit Associations, and other stakeholders to improve the assessment and mitigation of cumulative effects on caribou (see Other NIRB Concerns and Recommendations below).

Issue 2: Potential adverse impacts to migratory and non-migratory birds and other terrestrial wildlife from the sensory disturbance (including noise) associated with aerial surveys, from transportation of personnel and equipment with helicopters, fixed-wing aircraft, ATVs and snowmobiles, use of a winter access trail, establishment of a temporary camp and from exploration activities including prospecting, drilling and trenching.

Board views: As discussed above in the assessment of factors relevant to this project proposal, potential impact(s) are generally confined to specific geographic areas. The proposed project has the potential to disturb migratory and non-migratory birds, and other terrestrial wildlife. However, the potential adverse impact(s) of the proposed project activities to terrestrial wildlife and birds is considered to be of moderate magnitude due to the seasonal nature of the exploration activities. The Proponent would be required to follow the *Species at Risk Act*, the *Wildlife Act (Nunavut)*, the *Migratory Birds Convention Act* and *Migratory Birds Regulations*. The Proponent has provided a Wildlife Protection and Response Plan, which details its required and proposed mitigative actions for wildlife including raptors and migratory birds.

Recommended Mitigation Measures: It is recommended that the potential adverse impacts to wildlife and birds be mitigated by minimizing impacts on habitat and opportunities for human-wildlife interactions, by minimizing noise, by placing altitude restrictions on aircraft, by avoiding nesting sites, and by minimizing activities when birds are particularly sensitive to disturbance such as during migration, nesting, and moulting. The Board is recommending the following terms and conditions: 18 through 21, 22 through 25, 26 through 30, and 37.

Issue 3: Potential adverse impacts to surface water quality and quantity, and fish and fish habitat from mineral exploration operations, storage and use of fuel and chemicals, waste storage and disposal, winter trail development and use, transportation of equipment and personnel, the establishment of a temporary camp and water usage for the proposal.

Board views: There is the potential for the project to adversely impact surface water quality and fish and fish habitat from fuel spills during establishment and/or operation of the winter

access, movement of machinery, fuel, and supplies - particularly in sections of the alignment that overlap frozen water bodies that support fish. In addition, there is a potential for impacts from the exploration activities at each of the drill sites with the use of chemical additives and the potential for fuel spills. Greywater, sewage, and other wastes associated with the exploration camp also have the potential to adversely affect water quality, fish and fish habitat.

The Proponent has provided a Spill Contingency Plan that includes storage measures including secondary containment, spill response measures, equipment requirements, and overall handling procedures for the management of fuel and chemicals. The Proponent has also provided a Waste Management Plan and has committed to properly disposing of sewage and to depositing greywater at least 31 m from any waterbody. The Proponent would require a water licence from the Nunavut Water Board for the water usage activities and fuel storage. In addition, the Proponent would also be required to follow the *Fisheries Act*, the *Transportation of Dangerous Goods Regulations*, *Transportation of Dangerous Goods Act* and the *Canadian Environmental Protection Act* (see Regulatory Requirements section).

The potential for impacts is applicable to small geographic areas within the project footprint 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

Recommended Mitigation Measures: It is recommended that the potential adverse impacts to water and fish from chemicals, fuels, and wastes can be mitigated through proper storage, handling, and disposal procedures and the Board is recommending terms and conditions 7 through 10, and 12 through 15. The Board is also recommending the following terms and conditions to protect fish and fish habitat due to winter travel routes: 38 to 40, and 42 to 46. Terms and conditions 47 through 54, 56, 57, and 59 through 61 are recommended to potential impacts to water quality and aquatic habitat from stripping, trenching, and drilling on ice and on land, and terms and conditions 5 and 6 are recommended to mitigate impacts from domestic water usage.

Issue 4: Potential adverse impacts to ground stability, vegetation health, soil quality, terrain, and permafrost from winter trail development and use, the establishment of a temporary camp, from mineral exploration operation activities (drilling and trenching), and from accidents and malfunctions associated with fuel storage facilities.

Board Views: There is also potential for adverse impacts to ground stability, vegetation health and soil quality from the use of vehicles on portions of the winter access route with exposed soil. Specifically, the use of heavy equipment on exposed soil may result in soil compaction or rutting, which could contribute to soil erosion during snow melt in late spring and early summer. The activities proposed for the project, including establishment of temporary camp and fuel caches, may also result in degradation of permafrost which would negatively affect ground stability. Further, there is potential

for impacts to vegetation health and soil quality from the exploration activities including the trenching and drilling activities.

The Proponent has also committed to reclaim the site once activities are completed, including, to the extent possible and in discussion with other stakeholders, some wastes remaining from historic works. The Proponent would be required to follow *The Northern Land Use Guidelines - Pits and Quarries* and *The Nunavut Mining Safety Ordinance and the Territorial Quarrying Regulations*. The potential adverse impacts to ground stability, vegetation health, soil quality, terrain, and permafrost would be limited to the project footprint and are considered to be of low magnitude, short-term, and reversible.

Recommended Mitigation Measures: The Board is recommending the following terms and conditions to prevent erosion, rutting or gouging: 36, 38, 42, 43, 45 and 46. The Board is further recommending terms and conditions 47, and 62 through 66 to ensure the Proponent undertakes clean-up and restoration of the site upon completion of project activities. The Board also recommends term and condition 55 to minimize the footprint of drill sites and term and condition 17 to mitigate the potential adverse impacts from fuel spills.

Issue 5: Potential adverse impacts to air quality from drilling activities, use of heavy equipment, and incineration of combustible wastes.

Board views: Impacts to air quality would be limited to within the project footprint with a low probability of extending beyond the geographic area. Combustible wastes would be incinerated in a dual chamber incinerator and hazardous and non-combustible wastes would be transported south to an appropriate facility. The Proponent has provided a Waste Management Plan which describes segregating wastes at the camp site to minimize the creation of dioxin and furan compounds that are a by-product of the incineration of certain wastes. The potential adverse impacts to air quality are considered to be of low magnitude, short-term, and reversible.

Recommended Mitigation Measures: It is recommended that the potential adverse impacts may be mitigated by measures such as requiring the Proponent to not allow the incineration of waste oil/grease on site. The NIRB recommends term and condition 8 through 10 and 37 to mitigate the potential adverse impacts to air quality from incineration and engine idling.

Issue 6: Potential adverse impacts to public and traditional land use activities in the area, in particular caribou hunting, due to potential disturbance to caribou from drilling, aircraft, ATVs and snowmobiles, and movement of machinery.

Board Views: The proposed project is located in an area used by the Qamanirjuaq caribou herd. The Board notes that numerous concerns have been raised with respect to caribou and the potential decline of the herd and it is noted that the animals are important to the way of life of Inuit and Indigenous persons over a broad area. There is potential for

disruption to caribou habitat and caribou migration routes as a result of the exploration activities and as a result of the noise generated from activities associated with the field camp operations, which may reduce local caribou populations and availability of caribou as country food. It is possible that the project could result in other terrestrial wildlife avoidance that may change the distribution of wildlife species commonly harvested which may in turn affect personal enjoyment of the land, and the social and cultural activities practiced in the region.

The Proponent has committed to implementing wildlife mitigation measures to minimize disturbance to caribou, including seasonal restrictions on activity. The Proponent has also committed to conducting additional community consultation. Such additional community engagement may help identify potential resource use conflicts and inform the execution of the project. As a result of concerns raised during the public commenting period regarding disturbance to caribou habitat and caribou movement, the NIRB has included recommendations that the Proponent conduct the operations outside of May 15 to July 15 in project areas in proximity to natural ranges for caribou migration to calving and post-calving areas. In addition, terms and conditions have been recommended so that the Proponent plan operations to avoid disturbance to key wildlife, birds, and humans, and to minimize negative impacts to traditional land use activities by ensuring ongoing consultation with the community and community organizations.

Noted Inuit Qaujimaningit, traditional or community knowledge: As noted during the commenting period and as summarized above, Inuit, Athabasca Denesuline and other Indigenous groups have traditionally depended upon caribou as an important food source, and caribou are central to the cultural and physical well-being of these groups.

Recommended Mitigation Measures: Term and condition 67 is recommended to ensure that the affected communities and organizations are informed about the project proposal to ensure that project activities and term and condition 68 is recommended to ensure activities do not interfere with Inuit wildlife harvesting or traditional land use activities in the area. Terms and conditions 18 through 35 have been recommended to minimize impacts on wildlife, including caribou, muskox, and migratory and non-migratory birds.

Socio-economic effects on northerners:

Issue 7: Potential adverse impacts to historical, cultural and archaeological sites from exploration activities and the establishment of a temporary camp.

Board Views: The Proponent is proposing to work in an area where some historical, cultural or archaeological significance may be present, but none have specifically been identified in the proposal. The Proponent has committed to conducting archaeological surveys and is required to contact the Culture and Heritage Department when encountering historical sites and is required to follow the *Nunavut Act* (as recommended in Regulatory Requirements section). Additionally, considering that the proposed winter access trail

would overlap many frozen water bodies where historical, cultural, and archaeological sites would not be located, the probability of adverse impacts to such sites is low.

Recommended Mitigation Measures: Term and condition 67 is recommended to ensure that available Inuit Qaujimaningit can inform project activities, and reduce the potential for negative impacts occurring to any additional historical sites.

Significant public concern:

Issue 8: Public concern was expressed during the public commenting period for this project proposal, specifically in relation to potential project effects on the Qamanirjuaq caribou herd and the resultant adverse impacts on communities which rely on harvesting of this herd.

Board Views: The Board notes that several parties, in particular the Athabasca Denesuline Né Né Land Corporation, the Beverly and Qamanirjuaq Caribou Management Board, and World Wildlife Fund Canada, raised concerns with respect to the potential impacts of the proposed activities taking place within the calving and post-calving grounds of the Qamanirjuaq caribou herd. The Proponent has agreed to conduct community consultation; and follow up consultation and involvement of local community members is expected to provide an opportunity for the Proponent to hear and address concerns.

Recommended Mitigation Measures: Term and condition 67 is recommended to ensure that the affected communities and organizations are informed about the project proposal, and to provide the Proponent with an opportunity to proactively address or mitigate any concerns that may arise from the project activities. The Board is recommending that the Proponent conduct ongoing public consultation and provide an annual report that includes wildlife observations and an evaluation of the success of the mitigative measures applied (see Monitoring and Reporting Requirements section below).

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 (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, November 22, 2017), and the NIRB (Online Application Form, December 4, 2017; clarification of scope, December 4, 2017).
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/Incineration

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.
8. The Proponent shall incinerate all combustible wastes daily, and remove the ash from incineration activities and non-combustible wastes from the project site to an approved facility for disposal.
9. 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*.
10. The Proponent shall ensure that no waste oil/grease is incinerated on site.

Fuel and Chemical Storage

11. The Proponent shall store all fuel and chemicals in such a manner that they are inaccessible to wildlife.
12. 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.
13. 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.

14. 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.
15. The Proponent shall ensure that appropriate spill response equipment and clean-up materials (e.g., shovels, pumps, barrels, drip pans, and absorbents) are readily available during any transfer of fuel or hazardous substances, at all fuel storage sites, at all refuelling stations, at vehicle maintenance areas and at drill sites.
16. The Proponent shall remove and treat hydrocarbon contaminated soils on site or transport them to an approved disposal site for treatment.
17. 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

18. The Proponent shall ensure that there is no damage to wildlife habitat in conducting this operation.
19. The Proponent shall not harass wildlife. This includes persistently circling, chasing, hovering over pursuing or in any other way harass wildlife, or disturbing large groups of animals.
20. The Proponent shall not hunt or fish, unless proper Nunavut authorizations have been acquired.
21. 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

22. 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 metres 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.
23. The Proponent shall minimize activities during periods when birds are particularly sensitive to disturbance such as migration, nesting and moulting.
24. The Proponent shall avoid the seaward site of seabird colonies and areas used by flocks of migrating waterfowl by three (3) kilometres.
25. The Proponent shall ensure its aircraft avoid excessive hovering or circling over areas where bird presence is likely.

Aircraft Flight Restrictions

26. The Proponent shall not alter flight paths to approach wildlife, and shall avoid flying directly over animals.

27. The Proponent shall restrict aircraft/helicopter activity related to the project to a minimum flight altitude of 610 metres above ground level except during landing, take-off or if there is a specific requirement for low-level flying, which does not disturb wildlife or migratory birds.
28. 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.
29. The Proponent shall ensure that aircraft/helicopter do not, unless for emergency, touch-down in areas where wildlife are present.
30. 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 Muskox Disturbance

31. The Proponent shall not block or cause any diversion to caribou or muskox 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 or muskox have passed.
32. The Proponent shall not construct or operate any camp, cache any fuel or conduct blasting within ten (10) kilometres, or conduct any drilling operation within five (5) kilometres of any designated water crossings. The Proponent shall avoid interfering with any paths or crossings known to be frequented by caribou during periods of migration.
33. During the period of May 15 to July 15, the Proponent shall suspend all project operations, including low-level over flights, drilling, blasting/trenching, and use of snow mobiles and all-terrain vehicles outside the immediate vicinity of the camp. Should the results of localized monitoring satisfy the Land Use Inspector that project operations may resume without disturbing pregnant caribou cows or cows with young calves, the suspension may be lifted for the period specified.
34. Should pregnant caribou cows, cows with young calves, or groups of 50 or more caribou be observed within one (1) kilometre of project operations at any time, the Proponent shall suspend all operations in the vicinity, including low-level over flights, drilling, blasting/trenching, and use of snow mobiles and all-terrain vehicles outside the immediate vicinity of the camp, until caribou are no longer in the immediate area.
35. The Proponent shall retain independent wildlife monitors provided through the Issatik (Whale Cove) and Arviat Hunters and Trappers Organizations to undertake monitoring for caribou in proximity to project operations and ensure compliance with associated wildlife protection measures.

Ground Disturbance

36. 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.

37. All construction and road vehicles must be fitted with standard and well-maintained noise suppression devices and engine idling is to be minimized.

Winter Road/Trail

38. The Proponent shall select a route for its winter trail that maximizes the use of frozen water bodies.
39. The Proponent shall not erect camps or store materials on the surface ice of lakes or streams, except that which is for immediate use.
40. The Proponent shall ensure that no disturbance of the stream bed or banks of any definable watercourse be permitted, except where deemed necessary for maintaining project-specific operational commitments or by a responsible authority in cases of spill management.
41. 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.
42. 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.
43. The Proponent shall ensure that bank disturbances are avoided and no mechanized clearing carried out immediately adjacent to any watercourse.
44. 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.
45. The Proponent shall avoid disturbance on slopes prone to natural erosion, and alternative locations shall be utilized.
46. The Proponent shall implement suitable erosion and sediment suppression measures on all areas before, during and after conducting activities in order to prevent sediment from entering any waterbody. 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.
47. 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.

Stripping and Trenching

48. The Proponent shall not conduct any trenching activities within thirty-one (31) metres of the high water mark of any water body unless otherwise authorized by the Nunavut Water Board.
49. The Proponent shall implement sediment and erosion control measures by employing erosion prevention measures (e.g., berms or silt fence) in the trenching area during the project operation.
50. The Proponent shall stockpile all overburden/topsoil generated during trenching using proper erosion prevention measures. Upon completion of operation, the Proponent shall back fill, reclaim/re-contour and re-vegetate all disturbed areas.

51. The Proponent shall pump accumulated water in blast trenches to a natural depression sump, with berms build if necessary. Water should be analyzed in accordance with the Nunavut Water Board water license discharge criteria before discharging into the environment.

Drilling on Land

52. 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 unless otherwise authorized by the Nunavut Water Board.
53. The Proponent shall not allow any drilling wastes to spread to the surrounding lands or water bodies.
54. If an artesian flow is encountered, the Proponent shall ensure the drill hole is immediately plugged and permanently sealed.
55. 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.
56. 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.
57. The Proponent shall not locate any sump within thirty-one (31) metres of the normal high water mark of any water body unless otherwise authorized by the Nunavut Water Board. Sumps and areas designated for waste disposal shall be sufficiently bermed or otherwise contained to ensure that substances do not enter a waterway.
58. 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

59. 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.
60. 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.
61. The Proponent shall ensure that all drill cuttings are removed from ice surfaces daily.

Temporary Camps

62. The Proponent shall ensure that all camps are located on gravel, sand or other durable land.
63. The Proponent shall ensure that the land use area is kept clean and tidy at all times.

Restoration of Disturbed Areas

64. The Proponent shall survey the full extent its mineral leases to identify sources of pre-existing waste and/or contamination prior to establishing its camp and supporting infrastructure. Progressive reclamation should be practiced to the extent possible.
65. The Proponent shall remove all garbage, fuel and equipment upon abandonment.
66. 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

67. 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.
68. The Proponent shall ensure that project activities do not interfere with Inuit wildlife harvesting or traditional land use activities.
69. The Proponent should, to the extent possible, hire local people and access local services where possible.

MONITORING AND REPORTING REQUIREMENTS

In addition, the Board is recommending the following:

Community Consultation Report

1. The Proponent shall submit a public consultation report to the Nunavut Impact Review Board 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 to the Nunavut Impact Review Board by March 31st of each year of permitted activities beginning March 31, 2019. The annual report must contain at least the following information:
 - a) A summary of activities undertaken for the year, including:
 - a map showing the approximate location of drill sites;
 - a map showing the location of the fuel cache;
 - a description of local hires, contracting opportunities and initiatives;
 - flight altitudes, frequency of flights and anticipated flight routes;
 - site photos;
 - b) A work plan for the following year, including descriptions of any planned progressive reclamation work;
 - c) 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;

- d) A log of instances in which residents from nearby communities 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;
- e) A record of wildlife observations, including observed 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. A map of known sensitive wildlife sites such as denning sites, caribou crossing sites, and raptor nests in the area should accompany the report.
- f) A summary of any wildlife mitigation actions undertaken, including the number of cease-work orders required as a result of proximity to caribou and any other wildlife;
- g) An analysis of the effectiveness of mitigation measures for wildlife, and identification of adaptive mitigation that will be implemented if mitigation measures were unsuccessful;
- h) 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;
- i) 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
- j) 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:

Change in Project Scope

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

Bear and Carnivore Safety

2. The Proponent should review the Government of Nunavut's booklet on Bear Safety, which can be downloaded from this link: http://gov.nu.ca/sites/default/files/bear_safety_-_reducing_bear-people_conflicts_in_nunavut.pdf. Further information on bear/carnivore detection and deterrent techniques can be found in the "Safety in Grizzly and Black Bear Country" pamphlet, 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.

3. There are polar bear and grizzly bear safety resources available from the Bear Smart Society with videos on polar bear safety available in English, French and Inuktitut at <http://www.bearsmart.com/play/safety-in-polar-bear-country/>. Information can also be obtained from Parks Canada's website on bear safety at the following link: <http://www.pc.gc.ca/eng/pn-np/nu/quttinirpaaq/visit/visit6/d.aspx> or in reviewing the "Safety in Polar Bear Country" pamphlet, which can be downloaded from the following link: http://www.pc.gc.ca/eng/pn-np/nu/quttinirpaaq/visit/visit6/~media/pn-np/nu/auyuittuq/pdf/shared/PolarBearSafety_English.ashx.
4. 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 Arviat, phone: 867-857-3169 or Conservation Officer of Rankin Inlet, 867-645-8083 or 867-645-8084).

Species at Risk

5. 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://www.sararegistry.gc.ca/virtual_sara/files/policies/EA%20Best%20Practices%202004.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

6. 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.
7. 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/>.

Incineration of Wastes

8. The Proponent review Environment and Climate Change Canada's "Technical Document for Batch Waste Incineration", available at the following link: <http://www.ec.gc.ca/gdd-mw/default.asp?lang=En&n=F53EDE13-1>. The technical document provides information on appropriate incineration technologies, best management and operational practices, monitoring and reporting.

Transport of Dangerous Goods and Waste Management

9. Environment and Climate Change Canada recommends that all hazardous wastes, including waste oil, receive proper treatment and disposal at an approved facility.

10. The Proponent shall ensure that proper shipping documents (waste manifests, transportation of dangerous goods, etc.) accompany all movements of dangerous goods. Further, the Proponent shall ensure that the shipment of all dangerous goods is registered with the Government of Nunavut Department of Environment, Department of Environment Manager. Contact the Manager (867) 975-7748 to obtain a manifest if dangerous goods including hazardous wastes will be transported.

Winter Roads/Trails

11. If ice bridges are constructed, the Proponent follow the mitigation measures outlined in Fisheries and Oceans Canada's Operational Statement for Ice Bridges, available at the following internet address: now <http://www.dfo-mpo.gc.ca/pnw-ppe/fpp-ppp/guide-eng.html>.
12. Cutting or filling of crossing approaches below the high water mark will require prior review and approval by Fisheries and Oceans Canada - Fish Habitat Management Branch.

Aircraft Identification

13. The Proponent shall provide the communities of Whale Cove, Rankin Inlet, and Arviat a description of the planned helicopter activities, including photo(s) of the helicopter to be used, approximate flight paths, plans and times as available prior to commencement of activities to ensure community members are aware of the planned activities.

Caribou Management

14. 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).
15. Territorial and federal government agencies update the DIAND Caribou Protection Map with updated data and information from the Government of Nunavut and Beverly Qamanirjuaq Caribou Management Board.
16. 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 NPC, territorial and federal government agencies should work together with Regional Inuit Associations, co-management boards, the public, and industry to ensure the Nunavut-wide Land Use Plan currently under development identifies appropriate land use in these areas prior to potential mineral exploration occurring. The plan should identify and mitigate potential cumulative effects of human land use activities on barren-ground caribou on both localized and regional scales.
17. The NPC 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.

Kivalliq Inuit Association and Indigenous and Northern Affairs Canada

18. Indigenous and Northern Affairs Canada (INAC) and Kivalliq Inuit Association (KIA) impose mitigation measures, conditions and monitoring requirements pursuant to the land use authorizations, 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.
19. INAC and KIA consider the importance of conducting regular Land Use Inspections, pursuant to the authority of the land use authorization, 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 land use authorization.
20. INAC and KIA forward to the NIRB copies of any decisions by Inspectors which allow project activities to continue in areas of caribou presence between dates indicating work stoppages are necessary (exemptions from Caribou Protection Measures).
21. It is recommended to INAC and KIA that no extension be issued to land use authorizations until the Proponent's Public Consultation Report and Annual Reports are received.

Nunavut Water Board

22. The Nunavut Water Board imposes 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.
23. In particular, mitigation measures, conditions and monitoring requirements should be considered for the use of water, snow and ice for the development and maintenance of the winter road/trail for this project.

Indigenous and Northern Affairs Canada – Water Resources Division

24. INAC – Water Resources Division should consider the importance of conducting regular inspections, pursuant to the authority of the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*, while the project is in operation. Inspectors should focus on ensuring the Proponent is in compliance with the conditions imposed through the Water Licence.

REGULATORY REQUIREMENTS

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

Acts and Regulations

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://laws-lois.justice.gc.ca/eng/acts/n-28.8/>).
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* (Nunavut) and its corresponding regulations (<http://www.canlii.org/en/nu/laws/stat/snu-2003-c-26/latest/snu-2003-c-26.html>).
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* (<http://www.tc.gc.ca/eng/tdg/clear-tofc-211.htm>), *Transportation of Dangerous Goods Act* (<http://laws-lois.justice.gc.ca/eng/acts/t-19.01/>), and the *Canadian Environmental Protection Act* (<http://laws-lois.justice.gc.ca/eng/acts/C-15.31/>).
9. The *Aeronautics Act* (<http://laws-lois.justice.gc.ca/eng/acts/A-2/>).
10. The *Navigation Protection Act* (<http://laws-lois.justice.gc.ca/eng/acts/N-22/index.html>).
11. 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.

Other Applicable Guidelines

12. The *Northern Land Use Guidelines Pits and Quarries* (<http://www.aadnc-aandc.gc.ca/eng/1100100023585>).

CONCLUSION

The foregoing constitutes the Board's screening decision with respect to Agnico Eagle Mines Ltd.'s "Huckleberry Exploration" project proposal. The NIRB remains available for consultation with the Minister regarding this report as necessary.

Dated March 23, 2018 at Whale Cove, 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: September 2017

Terrestrial Species at Risk ¹	COSEWIC Designation	Schedule of SARA	Government Organization with Primary Management Responsibility ²
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 ³)	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 Baffin Island – Cumberland Sound population)	Endangered	Schedule 2	DFO
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

¹ The Department of Fisheries and Oceans has responsibility for aquatic species.

² 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 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*³ to issue such permits.

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

³ 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*⁴, the federal government can make regulations for the protection, care and preservation of palaeontological and archaeological sites and specimens in Nunavut. Under

⁴ s. 51(1)

the *Nunavut Archaeological and Palaeontological Sites Regulations*⁵, 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)

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

⁵ P.C. 2001-1111 14 June, 2001

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.