



## SCREENING DECISION REPORT NIRB FILE No.: 17UN035

NPC File No.: 148489

**June 13, 2017**

Following the Nunavut Impact Review Board's (NIRB or Board) assessment of all materials provided, the NIRB is recommending that a review of Indigenous and Northern Affairs Canada's "Bathurst/High Arctic Remediation and Risk Management" is not required pursuant to paragraph 92(1)(a) of the *Nunavut Planning and Project Assessment Act* (NuPPAA).

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

### OUTLINE OF SCREENING DECISION REPORT

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

### 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) as follows:

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

These objectives are confirmed under section 23 of the NuPPAA.

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

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

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

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

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

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

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

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

#### PROJECT REFERRAL

On March 9, 2017 the Nunavut Impact Review Board (NIRB or Board) received a referral to screen Indigenous and Northern Affairs Canada’s (INAC or Proponent) “Bathurst/High Arctic Remediation and Risk Management” project proposal from the Nunavut Planning Commission (NPC or Commission) with an accompanying positive conformity determination with the North Baffin Regional Land Use Plan. Pursuant to Article 12, Sections 12.4.1 and 12.4.4 of the *Agreement between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in right of Canada* (Nunavut Agreement) and section 87 of the *Nunavut Planning and Project*

*Assessment Act* (NuPPAA), the NIRB commenced screening this project proposal and assigned it file number 17UN035.

### **Information Requests and Suspension of Assessment:**

Following a preliminary completeness check, the NIRB determined that the proposal as submitted did not contain the necessary information for the NIRB to carry out its screening and on March 13, 2017 issued correspondence to INAC detailing the additional information required by March 27, 2017. On March 16, 2017 the NIRB received the requested additional information. After reviewing the additional information, the NIRB identified that components of the proposed project are proposed within the Qausuittuq National Park and pursuant to subsection 70(1) of the NuPPAA the NPC's conformity determination process does not apply for those portions of the project that occur in the National Park<sup>1</sup>; therefore on March 30, 2017 the NIRB requested that the Proponent submit its project to Parks Canada pursuant to subsection 164(1) of the NuPPAA.

### **Referral from Parks Canada**

On April 28, 2017 the NIRB received a referral from Parks Canada to screen the "Bathurst/High Arctic Remediation and Risk Management" project proposal pursuant to section 167 of the *Nunavut Planning and Project Assessment Act* (NuPPAA), and commenced screening the project.

## **PROJECT OVERVIEW & THE NIRB ASSESSMENT PROCESS**

### **1. Project Scope**

The proposed "Bathurst/High Arctic Remediation and Risk Management" project is located within the Qikiqtani (North Baffin) region, and would occur at several sites between approximately 300-400 kilometres (km) west and northwest from the community of Resolute Bay. The Proponent intends to conduct site remediation and risk management activities at fifteen (15) sites across the North Baffin Region and Qausuittuq National Park, which were contaminated as a result of previous oil and gas exploration activities. The program is proposed to take place from July to September 2017.

As required under subsection 86(1) of the NuPPAA, the Board accepts the scope of the Bathurst/High Arctic Remediation and Risk Management project as set out by INAC in the proposal. The scope of the project proposal includes the following undertakings, works, or activities:

- Establishment of a temporary base camp at Ile Vanier for up to 20 personnel:
  - Use and storage of water from a nearby seasonal water body for domestic purposes;
  - Use of Pacto toilets for sewage disposal;
  - Disposal of grey water into a pit backfilled with lime;
- Transportation, storage and use of 5,330 litres (L) of diesel, 5,330L of gasoline, 23,575L of aviation fuel, and 1,035 pounds of propane in on-site berms;

---

<sup>1</sup> Subsection 70(1) states: This Part and the broad planning policies, priorities and objectives, the specific planning objectives and any land use plan, established under this Part, do not apply in respect of a park that has been established or to a historic place that has been designated under the *Historic Sites and Monuments Act* and is administered by the Parks Canada Agency.

- Undertake reparation and upgrades to an existing airstrip at Ile Vanier to support mobilization and demobilization using heavy lift aircraft;
- Transportation of personnel and equipment from main camp site at Ile Vanier to other project sites via small aircraft or helicopter;
- Posting of warning signs at six (6) high arctic and nine (9) Bathurst sites prior to commencement of remedial activities including sites within the Qausuittuq National Park;
- Use of one (1) small excavator and four (4) all-terrain vehicles (ATV) with trailers to facilitate on-site remedial activities;
- Cleanup and remediation of sites by proper consolidation, packaging, and off-site shipment for proper disposal of hazardous materials, such as asbestos floor tiles, mercury containing materials, PCBs, metals and petroleum hydrocarbon contaminate soils, and refrigerator containing halocarbons to an accredited disposal facility;
- Onsite incineration of organic solvents, and combustible wastes;
- Development of an engineered cap to isolate approximately 100 cubic metres (m<sup>3</sup>) of contaminated soils from the local environment; and
- Containerization and labelling of contaminated soils for long-term monitoring, and off-site shipment to an accredited disposal facility.

## 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.

## 3. Key Stages of the Screening Process

The following key stages were completed:

Date	Stage
March 9, 2017	Receipt of project proposal and positive conformity determination (North Baffin Land Use Plan) from the NPC
March 13, 2017	Information request
March 16, 2017	Proponent responded to information request(s)
March 16, 2017	Scoping pursuant to subsection 86(1) of the NuPPAA
April 28, 2017	Receipt of project proposal from Parks Canada
May 4, 2017	Public engagement and comment request
May 25, 2017	Receipt of public comments

## 4. Public Comments and Concerns

Notice regarding the NIRB's screening of this project proposal was distributed on May 4, 2017 to community organizations in Grise Fiord, Resolute Bay, and Arctic Bay, 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 May 25, 2017 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; if so, why;
- Whether the project proposal is of a type where the potential adverse effects are highly predictable and mitigable with known technology, (please provide 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:

#### **Government of Nunavut – Department of Culture and Heritage (GN-CH)**

- A field assessment was previously conducted at the Bathurst sites: Ile Vanier, including airstrip, Bent Horn (Cameron Island), Stokes Range and Young Inlet/Humphries. As a result, no archaeological concerns were identified and no further archaeological work was recommended at these locations in relation to remediation work.
- However, an archaeological assessment has not been conducted for the High Arctic remediation sites, specifically (Rea Point, Drake Point, Dale Payne, Loughheed Island, Thor Island, and Romulus); therefore, recommend the Proponent work with a qualified archaeologist, as well as apply for a Class 2 permit in order to conduct archaeological assessment field assessments at these project sites.

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

- Noted that the Interim Spill Contingency Plan needs to be updated:
  - Clarified that the 24 Hour NWT/NU Spill Report line should be contacted first in case of a spill or emergency, and that ECCC's contact number listed in the Interim Spill Contingency Plan be removed; and
  - Recommended that ECCC's Environmental Enforcement Unit be contacted for information regarding the environmental enforcement and reporting requirements under the *Canadian Environmental Protection Act* and the *Fisheries Act*.
- Noted the potential for helicopter access to the project sites to cause disturbance to migratory birds at key locations, and recommended that the Proponent undertake the following actions:
  - Avoid known concentrations of birds (e.g., Sabine Peninsula and Fosheim Peninsula, bird colonies, moulting areas) by maintaining a lateral distance of at least 1.5 kilometres, and where not possible, keep a minimum flight altitude of 1,100 metres over these areas;
  - Avoid excessive hovering or circling over areas of high bird concentration; and
  - Inform pilots of these recommendations and any areas of high bird concentrations.

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

- No comments or additional terms and conditions to offer at this time.

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

No concerns or comments were received with respect to Inuit Qaujimaningit or traditional and community knowledge in relation to the proposed project.

### FACTORS FOR DETERMINING SIGNIFICANCE OF IMPACTS

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 size of the geographic area for the proposed remediation activities will include 15 sites across the North Baffin Region and within the Qausuittuq National Park, approximately 350 to 400 kilometres (km) west and northwest from the community of Resolute Bay. The proposed activities may take place within habitats for many far-ranging wildlife species such as caribou, wolves, migratory birds and non-migratory birds, and Species at Risk (Ross's Gull, Ivory Gulls, and Polar Bears), as identified by the Proponent and mapping sources and may potentially affect animal migratory patterns.

2. *The ecosystemic sensitivity of that area.*

The proposed project would occur in an area with no particular identified ecosystemic sensitivity, with the exception of a portion of the project area, which would occur within the Qausuittuq National Park, and adjacent to Seymour Island Bird Sanctuary including the Polar Bear Pass National Wildlife Area. However, the project area has been identified as having value and priority to the local community for:

- i. Terrestrial wildlife,
- ii. Marine mammals including walrus habitat, bearded and ring seal breeding ground, narwhal, beluga,
- iii. Migratory birds,
- iv. Polar bears including hunting, and
- v. Substance hunting and sport hunting.

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

The project Proponent has submitted a comprehensive Archaeological Field Assessment Reports for the project locations within the Bathurst area, and specifically indicated that all project sites designated for remediation are located approximately 100 km from any archaeological area. However, during the commenting period, the Government of Nunavut indicated that INAC has yet to conduct any archaeological field assessment studies at the High Arctic project sites, and recommended that the Proponent apply for a Class 2 permit in order to conduct archaeological field assessments at the High Arctic locations. Should the project be approved to proceed, the Proponent would be required 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.*

The proposed project would occur at locations approximately 350-400 km from Resolute Bay, the nearest community; as such, no human populations are likely to be affected by project impacts. Although the proposed project activities may take place in areas proximal to caribou and Polar Bear habitats, no animal populations were specifically identified as likely to be affected by potential project impacts. Far-ranging wildlife species such as caribou, muskox, wolf, Polar Bear, migratory birds and non-migratory birds are likely to be encountered within the area and may be impacted by the project proposal. Terms and conditions have been recommended in the following section to mitigate any potential impacts on their populations.

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 “Bathurst/High Arctic Remediation and Risk Management” project would involve site remediation and risk management activities, the proposed project would focus on reducing existing environmental impacts at the project area(s). Potential adverse impacts are likely to be localized, low to medium magnitude, infrequent and restricted to the short period of project activities (up to 10 weeks). However, due to the proximity of some project sites to caribou habitats and Polar bear passage area, specific mitigation measures for the protection of terrestrial wildlife may be necessary. Based on past evidence of similar scope of activities, potential adverse impacts will be reversible and mitigable with due care. The removal of material due to the project should increase the ecological integrity and improve the caribou habitat and other terrestrial habitat of the area.

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

The proposed project would take place within a 100 kilometre radius to a number of other projects that are currently active, in addition to other projects proposed and currently

undergoing assessment by the Board as listed in Table 1 below. However, it is noted that this project is not likely to result in residual or cumulative impacts.

The need for this project has been identified to address issues related to containment of previously stored wastes, especially adjacent to and within a National Park boundary, as such the benefits would be expected to outweigh the impacts; however in the assessment of impacts for this proposed project, and to ensure that the adverse impacts are minimized, the NIRB would recommend terms and conditions to mitigate the impacts identified above. The potential for cumulative impacts to human populations, local wildlife, vegetation, soil, and water resulting from the remediation activities and other projects occurring in the region has been identified and considered in 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.

**Table 1: Project List**

<b>NIRB Project Number</b>	<b>Project Title</b>	<b>Project Type</b>
<b><i>Proposed Developments – undergoing assessment</i></b>		
17YN019	Permafrost-active layer dynamics and feedbacks with climate forcing in ice-rich sediments	Research
17YN039	Multidisciplinary Investigation of Salt Diapirs	Research
17CN051	Arctic Kingdom - Redbull	Filming and Camp
17UN052	Qausuittuq National Park Caribou Habitat Restoration Phase 1	Restoration/Remediation
<b><i>Active Projects</i></b>		
08YN010	Ice Dynamics and Cryospheric Changes in Northern Canada	Research
<b><i>Past Projects</i></b>		
16DN017	Operation Nevus 2016	Defense
16YN043	Past climate reconstruction using annually-layered carbonate	Research
16DN061	NOREX 17	Defense

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; however it is noted that the proposal would be remediating fifteen (15) sites across the North Baffin Region and Qausuittuq National Park, which were contaminated as a result of previous oil and gas exploration activities. These activities would improve the ecological integrity and wildlife habitat.



## IEWS 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 negative impacts to terrestrial wildlife (including caribou, muskox, wolf and Polar Bear), migratory and non-migratory birds, and their associated habitats due to remediation activities such as soil excavation and increased noise generated, including transportation of personnel and equipment by helicopter and ATV to various sites.

**Board views:** As discussed above in the assessment of factors relevant to this project proposal, the potential for impact(s) is applicable to a small geographic area within 15 sites across the North Baffin Region and Qausuittuq National Park, but may affect terrestrial wildlife species such as migrating caribou, muskox, wolf, and Polar Bear, including migratory and non-migratory birds. Although the proposed project activities are anticipated to take place within caribou habitat, within the Qausuittuq National Park and in areas adjacent to Seymour Island Bird Sanctuary as well as Polar Bear passage areas, the potential for impacts to ungulate, Species at Risk and other terrestrial wildlife are considered to be short-term (up to 10 weeks) and reversible. Further, it is noted that the remedial activities would improve the look and function of the areas that were previously contaminated, as well as increase the ecological integrity of the wildlife habitat. The Proponent has also committed to ensuring that the proposed remedial activities would not induce any disturbance to terrestrial wildlife species within the project area. Further, the implementation of minimum flight altitudes and seasonal restrictions are expected to further mitigate potential adverse impacts to caribou and muskox, including migratory birds. In addition, the Proponent has submitted an Environmental Screening Report, which outlines various commitments that no terrestrial species would be affected beyond the presence of human activities during the proposed works.

The Proponent would also be required to follow the *Migratory Birds Convention Act*, *Migratory Birds Regulations*, *Canada National Parks Act*, *Species at Risk Act*, *Wildlife Act (Nunavut)* and *Aeronautics Act* (see Regulatory Requirements section).

**Recommended Mitigation Measures:** It is recommended that the potential adverse impacts to terrestrial wildlife, migratory and non-migratory birds may be mitigated by measures such as requiring the Proponent to maintain minimum flight altitudes, seasonal restrictions, ceasing activities that may interfere with wildlife, and the migration or

calving of caribou until caribou have left the area, and not damage wildlife habitats during reclamation activities. The following terms and conditions are recommended to mitigate the potential adverse impacts: 7, 10, 17 through 29, and 31.

**Issue 2:** Potential negative impacts to surface and marine water quality, and fish and fish habitat, from potential spill events, and erosion of excavated materials, and disposal of hazardous materials.

**Board views:** There is potential for adverse impacts to surface water quality, fish and fish habitat, from fuel and hazardous material spills, erosion and deposition of contaminated soils into fresh water and marine environment, including fish-bearing water bodies. However, the likelihood of such spill events or dispersion of hazardous material is considered to be low as the Proponent has committed to using berms and liners at storage sites for fuel and other hazardous materials and has committed to implementing a Spill Contingency Plan to address any spill incidents likely to occur within the project sites. Further, the Proponent would be required to also implement erosion protection measures, such as using silt curtains to reduce the spread of any eroded soils to nearby water bodies. As a result, the potential adverse impacts to water quality, fish and fish habitat are considered to be of low magnitude, infrequent, and reversible.

The Proponent would require a water license from the Nunavut Water Board for water usage activities, fuel storage and waste disposal activities associated with the project. Further, the Proponent would also be required to follow the *Fisheries Act*, the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*, the *Transportation of Dangerous Goods Regulations*, the *Transportation of Dangerous Goods Act*, and the *Canadian Environmental Protection Act* (see Regulatory Requirements section).

**Recommended Mitigation Measures:** It is recommended that the potential adverse impacts to fresh and marine water quality, fish and fish habitat may be mitigated by measures such as requiring the Proponent to ensure that silt fences or curtains are established down slope of the reclamation sites, and that re-fueling activities occur at a minimum of 31 metres away from the high water mark of any water body. The Board recommends the following terms and conditions to mitigate the potential adverse impacts to water quality, fish and fish habitat: 5, 6, 11 through 14, 16, and 30.

**Issue 3:** Potential adverse impacts to ground stability, vegetation health, soil quality, terrain, and permafrost from site preparation and excavation activities.

**Board Views:** The proposed activities for the project may result in adverse impacts to soil quality due to erosion and redistribution of contaminated soil, and may also adversely impact terrain and permafrost condition as a result of exposure of the active zones of the soil. However, the potential for impacts is limited to the project footprint and the probability of long term impacts occurring is considered to be low. Further, as noted below in Issue 6, the remedial activities would improve the look and function of the areas that were previously contaminated. To mitigate potential impacts, the Proponent has committed to ensuring that sign placement activities across the project sites would not affect

permafrost and groundwater hydrology of the area. The potential adverse impacts to soil quality, terrain, and permafrost are considered to be of low magnitude and reversible.

The Proponent would also be required to follow the *Transportation of Dangerous Goods Regulations*, *Transportation of Dangerous Goods Act*, and the *Canadian Environmental Protection Act*.

**Recommended Mitigation Measures:** It is recommended that the potential adverse impacts to ground stability, vegetation, soils and permafrost would be mitigated by measures requiring the Proponent to follow appropriate procedures for moving equipment or vehicles overland, and undertaking restoration of disturbed areas upon completion of field activities. The Board recommends the following terms and conditions to mitigate the potential adverse impacts to soil quality, terrain, and permafrost: 13 through 15, 30 through 35.

**Issue 4:** Potential adverse impacts to air quality from dust generated by use of heavy equipment and vehicles, including emissions from incineration of organic solvents and combustible wastes.

**Board views:** There is potential for adverse impacts to air quality from emissions generated from site preparation, excavation, onsite incineration of organic solvents and combustible wastes, which would be limited to a small geographical area within the project footprint and with a low probability of extending beyond the project area. 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 ensuring that the Proponent review the Canadian Council of Ministers of the Environment guidance document for open-air burning. In addition, the Board recommends the following terms and conditions to mitigate the potential adverse impacts to air quality: 8 and 9.

**Issue 5:** Potential adverse impacts to traditional land use activities in the area from noise and movement disruptions associated with the remediation activities and transportation operations.

**Board Views:** There is potential for ground-based activities such as mobilization, site preparation, and cleanup activities to cause disruptions to movement of wildlife, which may result in a reduction in hunting success for residents using the areas for traditional land use pursuits. The project proposal would occur within the seasonal ranges of caribou, and harvesting of these traditional resources may be limited within the vicinity of the project area. In addition to the Proponent's proposed mitigation measures, it is expected that standard operational considerations would mitigate any potential adverse impacts to wildlife in the project area, and areas adjacent to the proposed project. Terms and conditions have also been recommended to ensure safety to the public and to

ensure that potential impacts to traditional land use activities are minimized should they be observed.

**Recommended Mitigation Measures:** Term and condition 36 is recommended to ensure that the affected communities and organizations are informed about the project proposal and term and condition 38 has been recommended to ensure that project activities do not interfere with Inuit wildlife harvesting or traditional land use activities in the area.

**Issue 6:** Potential benefit to vegetation health and soil and water quality in the area from remediation activities as contaminated sites would be cleaned up reducing stress on microbes, plants, water, and terrestrial wildlife.

**Board Views:** There is potential for remediation activities to clean-up the soil and therefore put less stress on soil microbes and vegetation growing in the contaminated soils. This could mean that plants would grow more robustly and reduce the amount of contaminants entering the food chain. The area with reduced contaminants would also ensure safety to the public and potentially improve the visual impact of the area and allow more enjoyment during traditional land use activities.

**Recommended Mitigation Measures:** Term and condition 36 is recommended to ensure that the affected communities and organizations are informed about the project proposal and the long term benefits of the project for traditional land use activities in the area.

**Socio-economic effects on northerners:**

**Issue 7:** Potential adverse impacts to historical, cultural and archaeological sites from remediation works and cleanup activities.

**Board Views:** During the public commenting period, the Government of Nunavut indicated that the Proponent has not conducted archaeological field assessment of the sites at the High Arctic locations, and recommended that the Proponent apply for a Class 2 permit in order to conduct archaeological field assessments of the High Arctic sites. The Proponent has committed to ensuring that no heritage resource sites would be disturbed during project-related activities. The Proponent is required to follow the *Nunavut Act*, and contact the Culture and Heritage Department if sites of historical, cultural, and archaeological importance are encountered (Regulatory Requirements section).

**Recommended Mitigation Measures:** Term and condition 36 is recommended to ensure that available Inuit Qaujimaningit can inform project activities, and reduce the potential for adverse impacts occurring to any historical sites with the project area.

**Issue 8:** Potential benefits to the local community from hiring of local residents and businesses to assist with the proposed project activities.

**Board Views:** It is noted that the Proponent has committed to work with the community of Resolute Bay to provide hiring and business opportunities for residents, which would have positive economic effects on the community.

Recommended Mitigation Measures: Terms and conditions 36 and 37 have been recommended to ensure the Proponent continues to inform the community of the remediation activities, as well as provide community members with information to ensure a successful local hiring opportunity.

**Significant public concern:**

**Issue 9:** No significant public concern was expressed during the public commenting period for this file.

Board Views: Follow up consultation and involvement of local community members is expected to mitigate any potential for public concerns resulting from project activities. In addition, it is recommended that the Proponent adhere to its commitment of hiring local people during project activities.

Recommended Mitigation Measures: Term and condition 36 is recommended to ensure that the affected community and organizations are informed about the project proposal, and to proactively address or mitigate any concerns that may arise from the project activities. Term and condition 37 is recommended to ensure that the Proponent provide community members with information to ensure a successful local hiring opportunity.

**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:

Following review of all the materials provided to the Board regarding the project proposal, the NIRB staff is making the recommendation that the following or similar project-specific terms and conditions be imposed upon the Proponent through all relevant legislation, pursuant to paragraph 92(2)(a) of the NuPPAA:

**General**

1. Indigenous and Northern Affairs Canada (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,

March 9, 2017), and the NIRB (Online Application Form, March 16, 2017; Non-technical Project Summaries in English and Inuktitut; Project Maps; and Spill Contingency Plan, May 16, 2017).

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

### **Water Use**

5. Unless authorized by the appropriate agency, 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.
6. Unless authorized by the appropriate agency, the Proponent shall not use water, including constructing or disturbing any stream, lakebed or the banks of any definable water course.

### **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*.

### **Fuel and Chemical Storage**

10. The Proponent shall store all fuel and chemicals in such a manner that they are inaccessible to wildlife.
11. 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.
12. 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.
13. 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.
14. 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.
15. The Proponent shall remove and treat hydrocarbon contaminated soils on site or transport them to an approved disposal site for treatment.

16. 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**

17. The Proponent shall ensure that there is no damage to wildlife habitat in conducting this operation.
18. 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.
19. The Proponent shall not hunt or fish, unless proper Nunavut authorizations have been acquired.
20. 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**

21. 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.
22. The Proponent shall ensure its aircraft avoid excessive hovering or circling over areas where bird presence is likely.

### **Aircraft Flight Restrictions**

23. The Proponent shall not alter flight paths to approach wildlife, and avoid flying directly over animals.
24. The Proponent shall restrict aircraft/helicopter activity related to the project to a minimum flight altitude of 610 metres above ground level unless except during landing, take-off or if there is a specific requirement for low-level flying, which does not disturb wildlife or migratory birds.
25. The Proponent shall ensure that aircraft maintain a vertical distance of 1,100 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.
26. The Proponent shall ensure that aircraft/helicopter do not, unless for emergency, touch-down in areas where wildlife are present.
27. 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**

28. The Proponent shall cease activities that may interfere with the migration or calving of caribou or muskox, until the caribou or muskox have passed or left the area.
29. 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.

### **Ground Disturbance**

30. 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.
31. All construction and road vehicles must be fitted with standard and well-maintained noise suppression devices and engine idling is to be minimized.

### **Temporary Camps**

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

### **Restoration of Disturbed Areas**

34. The Proponent shall remove all garbage, fuel and equipment upon abandonment.
35. The Proponent shall ensure that all disturbed areas are restored to a stable state as practical as possible upon completion of field work.

### **Other**

36. 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.
37. The Proponent should, to the extent possible, hire local people.
38. The Proponent shall ensure that project activities do not interfere with Inuit wildlife harvesting or traditional land use activities.

## **MONITORING AND REPORTING REQUIREMENTS**

In addition, the Board is recommending the following:

### **Archaeology**

1. The Proponent should conduct an archaeological field assessment of the High Arctic project sites (Rea Point, Drake Point, Dale Payne, Loughheed Island, Thor Island, and Romulus) prior to commencing remediation activities within the area with the results of the archaeological field assessments submitted to the Government of Nunavut-Department of Culture and Heritage. The assessment should include locations (i.e., latitude and longitude) of where any archaeological sites and features are encountered relative to the project development area.



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

It is also recommended that:

### **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](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](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](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 Resolute Bay, phone: (867) 252-3879).

### **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](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 the Canadian Council of Ministers of the Environment's "Guidance Document for Canadian Jurisdictions on Open-Air Burning", available at the following link: [http://www.ccme.ca/files/Resources/air/wood\\_burning/pn\\_1548\\_CCME%20Guidance%20Document%20on%20Open%20Air%20Burning%20FINAL.pdf](http://www.ccme.ca/files/Resources/air/wood_burning/pn_1548_CCME%20Guidance%20Document%20on%20Open%20Air%20Burning%20FINAL.pdf) as a guidance document for best practices associated with open-air burning.

### **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.

## **REGULATORY REQUIREMENTS**

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

### **Acts and Regulations**

1. The *Fisheries Act* (<http://laws-lois.justice.gc.ca/eng/acts/F-14/index.html>).
2. The *Nunavut Waters and Nunavut Surface Rights Tribunal Act* (<http://laws-lois.justice.gc.ca/eng/acts/n-28.8/>).
3. The *Migratory Birds Convention Act* and *Migratory Birds Regulations* (<http://laws-lois.justice.gc.ca/eng/acts/M-7.01/>).
4. 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.
5. 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>) contains provisions to protect and conserve wildlife and wildlife habitat, including specific protection measures for wildlife habitat and species at risk.
6. The *Nunavut Act* (<http://laws-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**.

7. The *Canada National Parks Act* (<http://laws-lois.justice.gc.ca/eng/acts/n-14.01/>).
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/>).

#### CONCLUSION

The foregoing constitutes the Board's screening decision with respect to the Indigenous and Northern and Affairs Canada's "High/Arctic Remediation and Risk Management". The NIRB remains available for consultation with the Minister regarding this report as necessary.

Dated June 13, 2017 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](http://www.sararegistry.gc.ca)) to get the current status of a species.

Updated: October 2016

Species at Risk <sup>1</sup>	COSEWIC Designation	Schedule of SARA	Government Organization with Primary Management Responsibility <sup>2</sup>
Migratory Birds			
Eskimo Curlew	Endangered	Schedule 1	ECCC
Buff-breasted Sandpiper	Special concern	Pending	ECCC
Ivory Gull	Endangered	Schedule 1	ECCC
Ross's Gull	Threatened	Schedule 1	ECCC
Harlequin Duck (Eastern population)	Special Concern	Schedule 1	ECCC
Rusty Blackbird	Special Concern	Schedule 1	GN
Peregrine Falcon	Special Concern ( <i>anatum-tundrius</i> complex <sup>3</sup> )	Schedule 1 - Threatened ( <i>anatum</i> ) Schedule 3 – Special Concern ( <i>tundrius</i> )	GN
Short-eared Owl	Special Concern	Schedule 3	GN
Red Knot ( <i>rufa</i> subspecies)	Endangered	Schedule 1	ECCC
Red Knot ( <i>islandica</i> subspecies)	Special Concern	Schedule 1	ECCC
Horned Grebe (Western population)	Special Concern	Pending	ECCC
Red-necked Phalarope	Special concern	Pending	ECCC
Vegetation			
Felt-leaf Willow	Special Concern	Schedule 1	GN
Blanket-leafed Willow	Special Concern	Schedule 1	GN
Porsild's Bryum	Threatened	Schedule 1	GN
Terrestrial Wildlife			
Peary Caribou	Endangered	Schedule 1	GN
Peary Caribou (High Arctic Population)	Endangered	Schedule 2	GN
Peary Caribou (Low Arctic Population)	Threatened	Schedule 2	GN
Barren-ground Caribou (Dolphin and Union population)	Special Concern	Schedule 1	GN
Marine Wildlife			
Polar Bear	Special Concern	Schedule 1	GN/DFO
Grizzly Bear	Special Concern	Pending	GN
Wolverine	Special Concern	Pending	GN
Atlantic Cod, Arctic Lakes	Special Concern	Pending	DFO
Atlantic Walrus	Special Concern	Pending	DFO
Beluga Whale (Cumberland Sound population)	Threatened	Pending	DFO
Beluga Whale (Eastern Hudson Bay population)	Endangered	Pending	DFO
Beluga Whale (Western Hudson Bay population)	Special Concern	Pending	DFO
Beluga Whale (Eastern High Arctic – Baffin Bay population)	Special Concern	Pending	DFO
Bowhead Whale (Eastern Canada – West Greenland population)	Special Concern	Pending	DFO
Bowhead Whale (Eastern Arctic population)	Special Concern	Schedule 2	DFO
Killer Whale (Northwest Atlantic / Eastern Arctic populations)	Special Concern	Pending	DFO
Grey Whale (Eastern North Pacific population)	Special Concern	Schedule 1	DFO

Species at Risk <sup>1</sup>	COSEWIC Designation	Schedule of SARA	Government Organization with Primary Management Responsibility <sup>2</sup>
Humpback Whale (Western North Atlantic population)	Special Concern	Schedule 3	DFO
Narwhal	Special Concern	Pending	DFO
Fish			
Northern Wolffish	Threatened	Schedule 1	DFO
Atlantic Wolffish	Special Concern	Schedule 1	DFO
Bering Wolffish	Special Concern	Schedule 3	DFO
Fourhorn Sculpin	Special Concern	Schedule 3	DFO
Roundnose Grenadier	Endangered	Pending	DFO
Spotted Wolffish	Threatened	Schedule 1	DFO
Thorny Skate	Special Concern	Pending	DFO
Atlantic Cod, Arctic Lakes	Special Concern	Pending	DFO
Blackline Prickleback	Special Concern	Schedule 3	DFO

Notes: DFO: Fisheries and Oceans Canada; ECCC: Environment and Climate Change Canada; GN: Government of Nunavut

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

<sup>2</sup>Environment and Climate Change Canada 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.

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

## Appendix B

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



#### INTRODUCTION

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

#### TERMS AND CONDITIONS

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

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

Note that the above-mentioned functions require either a Nunavut Archaeologist Permit or a Nunavut Palaeontologist Permit. CH is authorized by way of the *Nunavut and Archaeological and Palaeontological Site Regulations*<sup>2</sup> to issue such permits.

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

---

<sup>2</sup> P.C. 2001-1111 14 June, 2001

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

### **Legal Framework**

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

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

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

### **Palaeontology and Archaeology**

Under the *Nunavut Act*<sup>3</sup>, the federal government can make regulations for the protection, care and preservation of palaeontological and archaeological sites and specimens in Nunavut. Under

---

<sup>3</sup> s. 51(1)



the *Nunavut Archaeological and Palaeontological Sites Regulations*<sup>4</sup>, it is illegal to alter or disturb any palaeontological or archaeological site in Nunavut unless permission is first granted through the permitting process.

## **Definitions**

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

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

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

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

*“fossil” includes:*

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

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

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

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

## **Introduction**

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

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

---

<sup>4</sup> 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.