



## SCREENING DECISION REPORT NIRB FILE No.: 12XN020

NPC File No.: 148746  
Related to NPC File No.: 148232  
INAC File No.: N2017N0017  
NWB File No. 8BC-EUR1621

**June 1, 2018**

Following the Nunavut Impact Review Board's (NIRB or Board) assessment of all materials provided, the NIRB is recommending that a review of Environment and Climate Change Canada's "Amended Land Use Permit application for Eureka Weather Station" 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
- 3) PROJECT OVERVIEW & THE NIRB ASSESSMENT PROCESS
- 4) ASSESSMENT OF THE PROJECT PROPOSAL IN ACCORDANCE WITH PART 3 OF *NuPPAA*
- 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)* 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 March 7, 2018 the NIRB received a referral to screen Environment and Climate Change Canada's (ECCC) "Amended Land Use Permit application for Eureka Weather Station" project proposal from the Nunavut Planning Commission (NPC or Commission), with an accompanying positive conformity determination with the North Baffin Regional Land Use Plan. The NPC noted that the previous conformity determination issued on April 19, 2012 and April 14, 2016 for the activities associated with the current proposal continues to apply and has determined that the project proposal is a significant modification to the project because of construction of the new road, water stream crossings, work camp relocation and new quarry site.

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. Due to the proposal containing activities that were sufficiently related to previously assessed activities under NIRB file number **12XN020**, the NIRB viewed this project proposal as an amendment to the previously screened project and assigned this proposal with this previous file number. A summary of the previously screened project activities can be found in [Appendix A](#).

#### PROJECT OVERVIEW & THE NIRB ASSESSMENT PROCESS

### 1. Project Scope

The proposed "Amended Land Use Permit application for Eureka Weather Station" project is located within the Qikiqtani region, approximately 407 km northwest from Grise Fiord. The Proponent intends to amend the scope of activities, as the previously approved Black Top Creek Quarry site was determined not a viable source of granular material for the proposed Eureka Recapitalization Runway Project. ECCC proposes to develop a new quarry site located at West Remus Creek and an associated access road from the Eureka Weather Station to the new quarry site with the construction program of the road proposed to take place from June 2018 to October 2018. The scope of activities previously approved for this ongoing infrastructure improvement (NIRB File No. 12XN020) has been included within [Appendix A](#).

As required under subsection 86(1) of the *NuPPAA*, the Board accepts the scope of the "Amended Land Use Permit application for Eureka Weather Station" project as set out by ECCC in the proposal. The scope of the project proposal includes the following undertakings, works, or activities:

- Upgrade an existing all-terrain vehicle (ATV) path/trail to a six (6) metre wide permanent road from West Remus Creek to the current Eureka runway for a total length of approximately 12 kilometres (km);
- Development of a new borrow area located at West Remus Creek for use of up to 75,000 cubic metres (m<sup>3</sup>) aggregate to construct road;
- Placement of culverts along to road to drain melt runoff including two (2) Arch culverts in Blacktop Creek to create a culvert bridge;

- Movement of crusher from Blacktop Creek to West Remus Creek; and
- Storage and use of fuel for improvement activities with facility to be located at Remus Creek.

At this time, the NIRB has identified no additional works or activities in relation to the project proposal. As a result, the NIRB will proceed with screening the project based on the scope as described above.

## **2. Inclusion or Exclusion to Scoping List**

In response to comments submitted regarding the proposed project (see Public Comments and Concerns section below), on May 15, 2018 the Proponent noted that its plans had changed; the proposed temporary camp at West Remus Creek would not be constructed, workers would be based out of the existing camp at Blacktop Creek instead, and workers would use the existing Eureka Weather Station water and sewage facilities.

Following consideration of comments received from the Proponent, the NIRB determined that an exclusion of these specific works or activities from the scope of the project was appropriate. As such any activities associated with the development of a new temporary camp at West Remus Creek has been excluded from the scope of this screening and, should similar activities be proposed in future, they should be considered as a significant amendment to the project and required to undergo a separate assessment by the NIRB.

Following identification of the scope of the project as set out above, the Proponent's work plan was updated during the screening process subsequent to the initial application, resulting in the following works/activities being excluded from the scope of the project:

- Movement of the temporary 24 person camp from Blacktop Creek to West Remus Creek, with removal of camp at completion of road construction works;
- Use of water from Station Creek and Remus Creek for domestic purposes;
- Use of top load waste incinerator for incineration of combustible wastes at the temporary camp; and
- Disposal of sewage and grey water in sewage lagoon from temporary camp activities.

The Proponent has indicated that their intention is to use the previously approved existing camp at Blacktop Creek and existing water and sewage facilities at the Eureka Weather Station instead of the development of the temporary camp as previously requested at Remus Creek. As such any activities associated with the development of a new temporary camp at West Remus Creek has been excluded from the scope of this screening and, should similar activities be proposed in future, they should be considered as a significant amendment to the project and required to undergo a separate assessment by the NIRB.

## **3. Key Stages of the Screening Process**

The following key stages were completed:

<b>Date</b>	<b>Stage</b>
March 7, 2018	Receipt of project proposal and positive conformity determination (Northern Baffin Land Use Plan) from the NPC
March 7, 2018	Information request
March 26, 2018	Proponent responded to information request(s)
March 26, 2018	Scoping pursuant to subsection 86(1) of the <i>NuPPAA</i>
April 3, 2018	Public engagement and comment request
April 24, 2018	Receipt of public comments
May 1, 2018	Proponent provided with an opportunity to address comments/concerns raised by public
May 2, 2018	Ministerial extension requested from the Minister of Indigenous and Northern Affairs Canada, Government of Canada
May 15, 2018	Proponent responded to comments/concerns raised by public

#### **4. Public Comments and Concerns**

Notice regarding the NIRB's screening of this project proposal was distributed on April 3, 2018 to community organizations in Grise Fiord, 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 April 24, 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; 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 (GN)**

##### **Camp Services**

- The 24 person tent camp that is proposed to be established at the site for the project and will house 50 contract workers would require review under the Public Health Act as the camp would be providing food, water and waste systems to service the camp.

##### **Wildlife Mitigation**

- Concerns the project potentially would result in wildlife disturbance.
- Minimal information on the area with respect to the composition of plant and animal communities and population abundances, and recommended the Proponent undertake

localized surveying to determine the composition of local plant and animal species and their habitats that may be affected by project construction and operations.

- Recommended the Proponent take precautions to ensure no undue stress to wildlife is caused from the project activities by providing suggested mitigation measures for wildlife in general, caribou and raptors.
- Concerns noted that the proposed project area may overlap with or affect Polar Bear denning activities or sites. Further, concerns were noted that the project activities could result in Polar Bear encounters and disturbance of denning sites. Recommended mitigation measures in the event Polar Bears and/or dens are encountered during the project activities.
- Concern that earth moving (e.g. blasting, grading, piling gravel, and other debris) activities may influence snow drifting, drift direction, drift thickness, etc. which may affect whether Polar Bears would find suitable denning habitat or not; and recommended that before any activities are conducted, the Government of Nunavut - Department of Environment (GN-DoE) be consulted.

#### Species at Risk

- Limited information on the presence of *Porsild's Bryum* which is listed as a threatened species under the *Species at Risk Act* and recommended the Proponent conduct a survey of the project location. If any *Porsild's Bryum* colonies are identified, the Proponent would be required to contact the GN-DoE prior to commencing construction activities.

#### Archaeological Resources

- Concern that the new infrastructure components as proposed would be in conflict with a number of archaeological sites in the area as identified in the Archaeological Impact Assessment.
- Recommended the Proponent applies for a Class 2 permit in order to mitigate any potential impact to archaeological sites located within the project footprint.

#### 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.

### **6. Proponent's Response to Public Comments and Concerns**

The following is a summary of the Proponent's response to concerns as received on May 15, 2018:

- In response to concerns regarding the camp at West Remus Creek, the Proponent noted it no longer plans to establish a temporary camp but to use existing approved camp facilities.

- In response to concerns regarding wildlife disturbance, the Proponent noted that an Environmental Impact Assessment was completed for the proposed project and included mitigation measures for wildlife.
- In response to concerns regarding the lack of baseline information on vegetation and animals in the proposed project area, the Proponent has agreed to develop a Wildlife Management Plan (WMP) which will include conducting a reconnaissance survey for Polar Bears, caribou, raptors, migratory birds, and Species at Risk prior to commencing construction work.
- In response to concerns regarding Polar Bears and Polar Bear denning, the Proponent noted that site records indicate Polar Bears are very rare in the area.
- In response to concerns regarding the potential presence of *Porsild's Bryum*, the Proponent notes that the conditions in the proposed project area make it unlikely that *Porsild's Bryum* is present, and that after discussion the Government of Nunavut has agreed. Environment and Climate Change Canada has committed to conducting a reconnaissance survey to identify any that might be present.
- In response to concerns regarding archeological resources, the Proponent has committed to hiring the archeologist who conducted the Archeological Impact Assessment of the project area to identify sites to the contractor prior to construction work. The archeologist has applied for a Class 2 permit.

## 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 let the Proponent provide a response to the comments, 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 May 2, 2018 the NIRB wrote to the Minister of Crown – Indigenous Relations and Northern Affairs, Government of Canada, seeking an extension to the 45-day timeline for the provision of the Board's Report.

### ASSESSMENT OF THE PROJECT PROPOSAL IN ACCORDANCE WITH PART 3 OF *NuPPAA*

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 road and quarry project involves widening an existing 9 kilometre (km) long all-terrain vehicle (ATV) trail from the Eureka airstrip to the proposed new quarry site at Remus Creek in order to provide aggregate for the upgrading of the airstrip. The proposed quarry site has a surface area of approximately 36 hectares (0.36 square kilometres [km<sup>2</sup>]) and is located in an area of minimal to no vegetation and poor wildlife habitat, and the road is located on previously disturbed terrain, thus the anticipated impacts on wildlife habitat are considered to be minimal. Remus Creek and Blacktop Creek are considered seasonal melt-water streams and are unlikely to be fish-bearing.

2. *The ecosystemic sensitivity of that area.*

The proposed project would occur in an area with no particular identified ecosystemic sensitivity. However, the area has been identified by the Proponent and/or from NPC's online mapping data as having value and priority to the local community for:

- i. Terrestrial wildlife including muskox;
- ii. Migratory birds and non-migratory birds;
- iii. Polar Bears; and
- iv. *Porsild's Bryum* moss.

Based on the Proponent's data collected from the Eureka Weather Station, the presence of Polar Bears in the area is rare, while the conditions for the growth of *Porsild's Bryum* is highly unlikely in the proposed quarry location. Muskox are frequently observed in the area.

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

The Proponent has indicated that there are a number of known areas of historical, cultural and archaeological significance in the vicinity of the project area. Should the project be approved to proceed, the Proponent has committed to avoiding identified archaeological resources in the vicinity of the project area and would be required to contact the Government of Nunavut-Department of Culture and Heritage if any additional 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 a location approximately 400 kilometres from Grise Fiord, the nearest community; as such, no human populations are likely to be affected by project impacts. However, it was noted during the commenting period that there is potential for impact to the Polar Bears and caribou, which could result in adverse impacts to traditional pursuits such as caribou and Polar Bear hunting. No other specific animal populations have been identified as likely to be affected by potential project impacts.



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 “Amended Land Use Permit application for Eureka Weather Station” project would involve quarrying and construction activities, including a permanent haul road and water crossing, there is potential for impacts due to dust, sedimentation, and habitat disturbance for the duration of the quarry and aggregate hauling activities. However, based on past evidence of similar scope of activities, the potential adverse impacts may be of low magnitude, reversible and mitigable with due care.

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

The proposed project 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 below. However, it is noted that this project is not likely to result in residual or cumulative impacts. 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 Number</b>	<b>Project Title</b>	<b>Project Type</b>
<b><i>Active Projects</i></b>		
08YN010	Ice Dynamics and Cryospheric Changes in Northern Canada	Research
17UN035	Bathurst High Arctic Remediation	Restoration/Remediation
17UN052	Qausuittuq National Park Caribou Habitat Restoration Phase 1	Restoration/Remediation
<b><i>Past Projects</i></b>		
16DN017	Operation Nevus 2016	Defense
16YN043	Past climate reconstruction using annually-layered carbonate	Research
16DN061	NOREX 17	Defense
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

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

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

In considering the factors as set out above in the screening of the project proposal, the NIRB has identified a number of issues 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 Board has previously recommended terms and conditions 1 through 4, and which continue to apply to the current project proposal. The Board is also recommending term and condition 48 to ensure complete reference to applicable regulatory requirements.

The Board would also note that, as justified in its previous decision (NIRB File No. 12XN020 dated May 30, 2012 and September 22, 2015), terms and conditions 5 through 47 remain applicable to the project as outlined below, and no additional terms and conditions are required for the project.

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

**Issue 1:** Potential adverse impacts to wildlife, migratory birds and non-migratory birds and associated wildlife habitat from construction of the road, quarry activities, and aggregate hauling as well as the increase in noise from the construction activities.

**Board views:** As discussed above in the assessment of factors relevant to this project proposal, the potential for impact(s) is applicable to previously disturbed area for the construction of the road and a geographically small area (36 hectares) for the quarry site. The quarry location has poor vegetation cover and is unlikely to be used for nesting nor for feeding by muskox or other wildlife in the area. Further, the Proponent noted within the submitted Environmental Impact Assessment that there is the possibility for disturbance of bird nests during operations. However, due to the short and intermittent nature of the proposed activities, as well as the operational procedures that would be adhered to by the Proponent, potential adverse impacts to wildlife and birds would be expected to be minimal and temporary only.

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

**Recommended Mitigation Measures:** The Proponent has committed to updating its wildlife management plan to include concerns expressed during the comment period. The Board has previously recommended terms and conditions to mitigate potential adverse impacts to wildlife and wildlife habitats, specifically: 8, 13, 19 through 24, and 35 which continue to apply to the current project proposal.

**Issue 2:** Potential adverse impacts to surface water quality and quantity, fish and fish habitat, vegetation, land and soil quality from quarrying and road construction activities, storage and use of fuel and chemicals, waste storage and disposal, and aggregate hauling.

**Board views:** There is the potential for the project to adversely impact surface water quality, fish and fish habitat, vegetation, land and soil quality from fuel spills during establishment and/or operation of the road, quarrying activities, and movement of machinery, fuel, and supplies, particularly in sections of the project that are adjacent to or across waterbodies. 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 and reversible in nature. The two (2) streams closest to the project activities (Blacktop Creek and Remus Creek) are seasonal meltwater streams with no observed fish population, and the project has been deemed by Fisheries and Oceans Canada (DFO) to not affect fish or fish habitat and thus not require permitting from DFO.

The Proponent has provided a comprehensive Fuel Spill Emergency Plan which includes storage measures, spill response measures, equipment requirements, and overall handling procedures for the management of fuel and chemicals (see Proponent Commitments section). Additionally, the Proponent has provided Quarry Operations Plan which includes details relating to minimizing potential effects on water from sedimentation (see Proponent Commitments section). In addition to the Proponent's proposed mitigation measures, it is expected that standard operational considerations would mitigate any potential adverse impacts to the surface water quality and quantity, and fish and fish habitat in the direct project area and areas adjacent to the proposed project (see Proponent Commitments section).

The Proponent has an existing 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).

**Recommended Mitigation Measures:** The Board previously issued terms and conditions to reduce adverse impacts from fuel/chemical spill hazards, waste management and disposal, and sedimentation resulting from quarrying and construction activities by issuing terms and conditions 5 through 6, 11, 12, 14 through 18, 33, 34, 36, 39, and 41 through 46, which continue to apply to the project.

**Issue 3:** Potential adverse impacts to air quality from the road development and use, quarry development and operations, use of heavy equipment, and associated noise and dust.

**Board views:** There is potential for adverse impacts to air quality from site preparation, use of heavy equipment and machinery, quarrying activities associated with the project, noise, and dust generation, which would be limited to within the project footprint with a low probability of extending beyond the geographic 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 minimize dust with the addition of dust suppressants and minimize emission from vehicles. The Board previously recommended the following terms and conditions to mitigate the potential adverse impacts to air quality: 30, 35, 36, and 47, which continue to apply to the project.

**Socio-economic effects on northerners:**

**Issue 4:** Potential adverse impacts to archaeological sites from quarry and construction activities.

**Board Views:** The Proponent is proposing to work in an area of known archeological sites which may cause potential negative impacts. The Proponent has committed to perform an archeological survey (see Proponent Commitments section) and is required to contact the Government of Nunavut – Department of Culture and Heritage when encountering historical sites and is required to follow the *Nunavut Act* (as recommended in Regulatory Requirements section).

**Recommended Mitigation Measures:** Term and condition 40 was previously recommended to ensure that available Inuit Qaujimaningit can inform project activities, and reduce the potential for negative impacts occurring to any additional historical sites, which continue to apply for this project proposal.

**Significant public concern:**

**Issue 5:** No significant public concern was expressed during the public commenting period for this file.

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

**Recommended Mitigation Measures:** Term and condition 40 was previously recommended to ensure that the affected community and organizations are informed about the project proposal, and to provide community members with information to ensure a successful local hiring opportunity, which continue to apply for this project proposal. In addition, the Board is recommending new term and condition 49 to ensure quarry boundaries are clearly visible to land users.

**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 following terms and conditions were previously issued by the NIRB in the May 30, 2012 and September 22, 2015 Screening Decision Report(s) for File No. 12XN020, **and continue to apply to the “Amended Land Use Permit application for Eureka Weather Station” project:**

### General

1. Environment 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 and materials provided as a part of the current application package:
  - a. NIRB Part 1 Form, April 5, 2012;
  - b. NPC Application for Conformity, April 16, 2012;
  - c. AANDC Land Use Permit Application, April 4, 2012;
  - d. Operations and Maintenance for Drinking Water, Sewage, Solid waste Disposal and Waste Treatment Facilities, January 2011; and
  - e. Operating procedures for Eureka Land Reserve, March 1, 2011.
4. The Proponent shall operate the site in accordance with all applicable Acts, Regulations and Guidelines.

### Water Use

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

### Waste Disposal/Incineration

7. 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.
8. 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.
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.

11. The Proponent shall remove and treat hydrocarbon contaminated soils/snow on site or transport them to an approved disposal site for treatment.

### **Fuel and Chemical Storage**

12. The Proponent shall ensure that storage of fuel and hazardous materials and re-fuelling of project equipment is conducted at 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 store all fuel and chemicals in such a manner that they are inaccessible to wildlife.
14. The Proponent shall use adequate secondary containment or a surface liner (e.g. self-supporting insta-berms and fold-a-tanks) when storing barrelled fuel and chemicals at all locations. Appropriate spill response equipment and clean-up materials (e.g., shovels, pumps, barrels, drip pans, and absorbents) must be readily available during any transfer of fuel or hazardous substances, as well as at fuel caches, vehicle-maintenance areas and drill sites. Spill kits and secondary containment structures should accommodate 110% of the capacity of the largest fuel storage container within the cache.
15. The Proponent shall inspect and document the condition of all large fuel tanks on a weekly basis. All fuel and chemical storage containers must be clearly marked with the Proponent's name and examined for leaks immediately upon delivery.
16. The Proponent shall flag all fuel caches on site so they remain visible in the winter months.
17. The Proponent shall use drip pans or other equivalent device when refueling equipment on-site. The Proponent shall ensure that appropriate spill kit (e.g., shovels, absorbents, etc.) must be readily available during any transfer of fuel.
18. 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**

19. The Proponent shall ensure that there is no damage to wildlife habitat in conducting this operation.
20. The Proponent shall not harass wildlife. This includes persistently worrying or chasing animals, or disturbing large groups of animals. The Proponent shall not hunt or fish, unless proper Nunavut authorizations have been acquired.
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 metre buffer around the nests). If active nests of any birds are

discovered (i.e., with eggs or young), the Proponent shall avoid these areas until nesting is complete and the young have left the nest.

### **Aircraft Flight Restrictions**

23. The Proponent shall restrict aircraft/helicopter activity related to the project to a minimum altitude of 610 metres above ground level unless there is a specific requirement for low-level flying, which does not disturb wildlife and migratory birds.
24. The Proponent shall ensure that aircraft maintain a vertical distance of 1,000 metres and a horizontal distance of 1,500 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.
25. The Proponent shall ensure that aircraft/helicopter do not, unless for emergency, touch-down in areas where wildlife are present.
26. 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.

### **Landfarms**

27. The Proponent shall only treat petroleum and hydrocarbon contaminated soils using the landfarm facility. Materials contaminated with other substances such as glycol and heavy metals are not to be stored at the landfarm and shall only be disposed of at an authorized facility.
28. The Proponent shall ensure required standards, set out in the Nunavut Water Board's Water Licence for this project are met prior to any discharge of collected water in the retention cell.
29. The Proponent shall ensure that the equipment used in the landfarm operation for aeration, have been cleaned off within the landfarm facilities prior to exiting to prevent contaminated soil transfer.
30. The Proponent shall take appropriate dust suppression measures when conducting soil turning and removal.
31. All operation personnel shall be adequately trained prior to commencement of any operation in the landfarm facility. Operational personnel should also be trained in the operational guidelines and commitments made by the Proponent for this project.
32. The Proponent shall ensure that all on site 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.

### **Access Road**

33. 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.
34. The Proponent shall implement suitable erosion and sediment suppression measures on disturbed areas in order to prevent sediment from entering any water body.

35. All road vehicles must be fitted with standard and well-maintained noise suppression devices and engine idling is to be minimized.
36. The Proponent shall use water or other non-toxic and biodegradable additives for dust suppression as necessary to maintain ambient air quality without causing water to pool or runoff.

### **Temporary Camps**

37. The Proponent shall ensure that all camps are located on gravel, sand or other durable land.
38. The Proponent shall not erect camps or store material on the surface ice of lakes or streams.

### **Restoration of Disturbed Areas**

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

### **Other**

40. The Proponent should, to the extent possible, hire local people and consult with local residents regarding their activities in the region.

### **(updated) Aggregate Removal and Operations within Existing and New Quarries**

41. The Proponent shall not remove any material from below the ordinary high water mark of any lake or stream.
42. The Proponent shall not deposit or permit the deposit of sediment into any water body.
43. The Proponent shall ensure there is no obstruction of natural drainage, flooding or channel diversion from quarry/pit access, stockpiles, or other structures or facilities.
44. The Proponent shall ensure that silt fences/curtains are installed down gradient of any quarry activities.
45. The Proponent shall maintain an undisturbed buffer zone between the periphery of quarry sites and the high water mark of any water body that is of an adequate distance to ensure erosion control.
46. The Proponent shall locate screening and crushing equipment on stable ground, at a location with ready access to stockpiles.
47. The Proponent shall use water or other non-toxic and biodegradable additives for dust suppression as necessary to maintain ambient air quality without causing water to pool or runoff.

### **In addition to the previously issued terms and conditions, the Board recommends the following project-specific terms and conditions:**

48. The Proponent shall operate in accordance with all commitments stated in correspondence provided to the Nunavut Planning Commission (NPC File No.: 148746), and the NIRB (Online Application Form, March 26, 2018; Response to Comments, May 15, 2018).

### **Establishment of New Quarries**

49. The Proponent shall clearly stake and flag pit and quarry boundaries so they remain visible to other land users.



## MONITORING AND REPORTING REQUIREMENTS

*The Board has previously recommended the following on May 30, 2012 and September 22, 2015:*

### Annual Report

1. (updated) The Proponent shall submit an annual report with copies provided to the Nunavut Impact Review Board by November 1 of each year between 2015 and 2022. The annual report must contain the following information:
  - a. A summary of activities undertaken for the year, including a list of activities and when they were undertaken, as well as the approximate quantities of aggregate extracted each year.

## OTHER NIRB CONCERNS AND RECOMMENDATIONS

*In addition to the project-specific terms and conditions, the Board has previously recommended the following on May 30, 2012 and September 22, 2015:*

### Bear and Carnivore Safety

1. (updated) 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).

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).

2. Any problem wildlife or any interaction with carnivores should be reported immediately to the local Government of Nunavut - Department of Environment Conservation Office in Iqaluit (phone: (867) 924-6235).

### Incineration of Wastes

3. The Proponent review Environment 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.

### **Species at Risk**

4. (*updated*) 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.

### **Change in Project Scope**

5. (*updated*) 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

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

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

***The Board is currently also recommending the following:***

### **Migratory Birds**

8. 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.
9. 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/>.

### **Transport of Dangerous Goods and Waste Management**

10. Environment and Climate Change Canada recommends that all hazardous wastes, including waste oil, receive proper treatment and disposal at an approved facility.
11. 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 Board previously recommended in the May 30, 2012 and September 22, 2015 Screening Decision Report(s) for the "Eureka Weather Station Facility" project the following legislation, which continues to apply to the current proposal:*

### **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://www.canlii.org/ca/sta/n-28.8/whole.html>).
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 B** is a list of Species at Risk in Nunavut.
5. The *Wildlife Act* (<http://www.canlii.org/en/nu/laws/stat/snu-2003-c-26/latest/snu-2003-c-26.html>) which contains provisions to protect and conserve wildlife and wildlife habitat, including specific protection measures for wildlife habitat and species at risk.
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 C**.
7. (updated) 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/>).
8. The *Aeronautics Act* (<http://laws-lois.justice.gc.ca/eng/acts/A-2/>).

### **Other Applicable Guidelines**

9. The *Federal Guidelines for Landfarming Petroleum Hydrocarbon Contaminated Soils*, Science Applications International Corporation (SAIC Canada), March, 2006. Information in this document addresses design, operation, monitoring, sampling, analytical methods, decommissioning and closure, record keeping and reporting requirements for landfarming projects. It is recommended that the consultant refer to this document as it relates to the future operations of the landfarming project.

10. (updated) The *Northern Land Use Guidelines Pits and Quarries* (<http://www.aadnc-aandc.gc.ca/eng/1100100023585>) provide guidelines for progressive reclamation applicable to establishment of pits and quarries.

*In addition, the Proponent is also advised that the following legislation may apply to the project:*

### **Acts and Regulations**

11. The Proponent shall undertake quarrying in accordance with the *Nunavut Mining Safety Ordinance* and the *Territorial Quarrying Regulations* (<http://www.canlii.org/en/ca/laws/regu/crc-c-1527/latest/crc-c-1527.html>) or equivalent.

### CONCLUSION

The foregoing constitutes the Board's screening decision with respect to the Environment and Climate Change Canada's "Amended Land Use Permit application for Eureka Weather Station". The NIRB remains available for consultation with the Minister regarding this report as necessary.

Dated: June 1, 2018 at Whale Cove, NU.



Elizabeth Copland, Chairperson

Attachments: Appendix A: Previously-Screened Project Proposals  
Appendix B: Species at Risk in Nunavut  
Appendix C: Archaeological and Palaeontological Resources Terms and Conditions for Land Use Permit Holders

## APPENDIX A: PREVIOUSLY-SCREENED PROJECT PROPOSALS

The original project proposal NIRB (File No. 12XN020), was received by the NIRB from the Nunavut Planning Commission and Aboriginal Affairs and Northern Development Canada on April 19, 2012 and was screened by the Board in accordance with Part 4, Article 12 of the *Agreement between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in right of Canada (Nunavut Agreement)*. On May 30, 2012 the NIRB issued a *Nunavut Agreement* 12.4.4(a) screening decision to the then Minister of Aboriginal Affairs and Northern Development (now Minister of Crown-Indigenous Relations and Northern Affairs) which indicated that the proposed project could proceed subject to the NIRB's recommended project-specific terms and conditions.

Environment Canada's (now Environment and Climate Change Canada or Proponent) original "Eureka Weather Station Facility" project was located in the Qikiqtani (North Baffin) region, approximately 407 kilometres (km) northwest of Grise Fiord on Crown Land Reserve #1021. The Eureka Weather Station Facility was originally established in 1947 with additional building added in subsequent years and a Research Support Opportunity established in 1987. The primary purpose of the facilities was to collect meteorological information. The secondary purpose was to provide logistical support and a staging location for science based research, exploration and military operations as well as serve the small tourist trade that visits the area. At the time of the 2012 application, the Eureka station was to be used by both the Department of National Defence and the Natural Resources Canada (NRCan) Polar Continental Shelf program. Operations were to continue year round at the various facilities that are now in place.

According to the previously screened project proposal, the scope of the project included the following undertakings, works or activities:

- Operations and maintenance of all of the existing Eureka infrastructure, specifically:
  - Airstrip and all access roads,
  - Tankfarm and fuel supply system,
  - Water and sewage lagoons,
  - Heating and electricity,
  - Biotreatment cell (landfarm),
  - Disposal/burning of non-hazardous landfill,
  - Hazardous materials collected and barged off site to be disposed of appropriately, and
  - Accommodations, laboratories, and general storage and warehousing.
- Ongoing use of the Eureka as a base camp and logistical support/staging areas for other entities/organizations such as the Department of National Defence and NRCan's Polar Continental Shelf Program.

Additional authorization and extension requests associated with the "Eureka Weather Station Facility" project have also been reviewed by the NIRB following screening of the original project proposal (File No. 12XN020). In each instance where the NIRB received applications up to and including December 18, 2014, the NIRB confirmed that the applications were exempt from the requirement for further screening pursuant to Section 12.4.3 of the *Nunavut Agreement* and that the activities therein remained subject to the terms and conditions recommended in the

original May 30, 2012 Screening Decision Report. On September 22, 2015, after receiving an application for additional activities, the NIRB issued additional terms and conditions associated with the “Eureka Weather Station Facility” project as per 12.4.4(a) of the *Nunavut Agreement*.

The following is a summary of the previously screened project activities as received by the NIRB:

- 1) The scope associated with the previous December 18, 2014 extension request included continued operations of the facility for previously approved activities.
- 2) The scope associated with the previous June 29, 2015 amendment application included:
  - Upgrading infrastructure at the Eureka site between August 2015 and September 2017;
  - Construction of a new airside apron and rehabilitation of existing airstrip, airside apron and access road at the Eureka Weather Station Facility; and
  - Removal of up to 160,900 cubic metres of aggregate from the existing Blacktop Creek Quarry.

## **Appendix B**

### **Species at Risk in Nunavut**

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

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

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

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

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

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

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

Updated: September 2017

Terrestrial Species at Risk <sup>1</sup>	COSEWIC Designation	Schedule of SARA	Government Organization with Primary Management Responsibility <sup>2</sup>
<b>Migratory Birds</b>			
Buff-breasted Sandpiper	Special concern	Schedule 1	ECCC
Eskimo Curlew	Endangered	Schedule 1	ECCC
Harlequin Duck (Eastern population)	Special Concern	Schedule 1	ECCC
Harris's Sparrow	Special Concern	Pending	ECCC
Horned Grebe (Western population)	Special Concern	Schedule 1	ECCC
Ivory Gull	Endangered	Schedule 1	ECCC
Peregrine Falcon	Special Concern ( <i>anatum-tundrius</i> complex <sup>3</sup> )	Schedule 1 - Schedule 3	ECCC
Red Knot ( <i>islandica</i> subspecies)	Special Concern	Schedule 1	ECCC
Red Knot ( <i>rufa</i> subspecies)	Endangered	Schedule 1	ECCC
Red-necked Phalarope	Special concern	Pending	ECCC
Ross's Gull	Threatened	Schedule 1	ECCC
Rusty Blackbird	Special Concern	Schedule 1	ECCC
Short-eared Owl	Special Concern	Schedule 1	ECCC
<b>Vegetation</b>			
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
<b>Arthropods</b>			
Traverse Lady Beetle	Special Concern	Pending	Government of Nunavut
<b>Terrestrial Wildlife</b>			
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
<b>Marine Wildlife</b>			
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

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

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

## Appendix C

### 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>1</sup> to issue such permits.

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

---

<sup>1</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>2</sup>, the federal government can make regulations for the protection, care and preservation of palaeontological and archaeological sites and specimens in Nunavut. Under

---

<sup>2</sup> s. 51(1)

the *Nunavut Archaeological and Palaeontological Sites Regulations*<sup>3</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>3</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.