

The primary objectives of the NIRB are set out in Article 12, Section 12.2.5 of the *Nunavut Agreement* and are confirmed by s. 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 Article 12, Section 12.4.1 of the *Nunavut Agreement* and s. 88 of the *NuPPAA* which states:

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 Article 12, Section 12.4.2(a) and (b) of the *Nunavut Agreement* and s. 89(1) of *NuPPAA* which states:

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 under Article 12, Section 12.4.2(c) and s. 89(2) of the *NuPPAA* provides that the considerations set out in s.89(1)(a) prevail over the considerations set out in s. 89(1)(b) of the *NuPPAA*.

As set out under Article 12, Section 12.4.4 of the *Nunavut Agreement* and s. 92(1) of the *NuPPAA*, upon conclusion of the screening process, the Board must provide its written report the Minister. The contents of the NIRB's report are specified under *NuPPAA*:

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 January 14, 2019 the NIRB received a referral to screen Hamlet of Naujaat’s “Community Access Trail” project proposal from the Nunavut Planning Commission (NPC or Commission), with an accompanying positive conformity determination with the Keewatin Regional Land Use Plan. On April 9, 2019 the NIRB issued a notice to the Commission that, following consultation with the Proponent, an inclusion has been made to the scope of the project under s. 86(1)(a) of the *NuPPAA*. On April 26, 2019, the NIRB received a second referral from the NPC for the inclusion activities noting that the previous conformity determination issued on January 14, 2019 continues to apply.

Pursuant to Article 12, Sections 12.4.1 and 12.4.4 of the *Nunavut Agreement* and s. 87 of the *NuPPAA*, the NIRB has commenced screening this project proposal and has assigned it file number **19PN003**.

PROJECT OVERVIEW & THE NIRB ASSESSMENT PROCESS

1. Project History

Following receipt of the project and referral for screening from the Commission, on January 14, 2019 the NIRB requested that the Proponent complete the Board’s online application form through the NIRB’s public registry system. The Proponent was asked to ensure, pursuant to s. 144(1) of the *NuPPAA*, that the information provided is sufficient to determine the scope of the project activities being proposed and facilitate the public screening process. On February 8, 2019 the NIRB followed up with the Proponent requesting an online application, and on February 22, 2019 the NIRB received an application and following a preliminary completeness check of the proposal as submitted, the NIRB determined that the proposal did *not* contain the necessary information for the NIRB to carry out its screening. On March 5, 2019 requested that the Proponent provide the Board with the additional information in order to carry out the screening of the project proposal which was followed by submission of an amended application on March 11, 2019.

On March 20, 2019 the Board notified the Proponent that additional works and activities had been identified to those specified within the scope of the project as submitted, and that appeared to be sufficiently related so as to form part of the project under assessment. The NIRB requested that the Hamlet of Naujaat provide comments to the NIRB by April 1, 2019 regarding the potential inclusions to the scope being contemplated. The Hamlet of Naujaat provided correspondence in response on March 30, 2019 noting support of the project proposal and the importance of the project to allow future access to granular sources, economic growth in tourism, cultural programs and other land-based programs; no comments directly applicable to the proposed inclusion to the project scope were provided.

On April 9, 2019 the NIRB provided notice to the Commission that, following consultation with the Proponent, an inclusion had been made to the scope of the project pursuant to s. 86(1)(a) of the *NuPPAA* and that the NIRB was unable to proceed with screening until the updated scope of the project had been considered by the Commission. The NIRB noted that an inclusion was warranted as the activities as listed below was sufficiently related to the original project to form part of it.

On April 26, 2019 the NPC determined that the inclusion represented a significant modification to the project, and conformed to the Keewatin Regional Land Use Plan.

On May 7, 2019 the NIRB distributed notice of the project proposal to potentially affected communities and interested parties with a request for comments to be submitted for the Board's consideration by May 28, 2019. On June 4, 2019, the Proponent was given the opportunity to address the received comments, to be submitted to the NIRB on or before June 18, 2019.

On June 17, 2019 the NIRB requested a Ministerial Extension in order to have adequate time to complete the screening of the project. On June 18, 2019, the Proponent submitted a response to the comments.

2. Project Scope

All documents received and pertaining to this project proposal can be accessed from the NIRB's online public registry at www.nirb.ca/project/125448.

The proposed "Community Access Trail" project is located within the boundaries of Naujaat in the Kivalliq region, up to 15 kilometres (km) northeast from the community. The Hamlet of Naujaat (the Proponent) intends to develop, operate and maintain a 15 km all-weather community access road with a bridge and multiple culverts following an existing all-terrain vehicle (ATV) trail. The purpose of the road is to allow safer access by community members to hunting grounds, access to gravel and carving stone resources, the development of eco-tourism and educational opportunities and the facilitation of industrial opportunities. The construction is proposed to take place from August 2019 to October 2019 with operation and maintenance to commence following construction activities.

As required under s. 86(1) of the *NuPPAA*, the Board accepts the scope of the Community Access Trail project as set out by the Hamlet of Naujaat in the proposal. The scope of the project proposal includes the following undertakings, works, or activities:

- Construction of a 15 km all weather access road;

- Construction of a clear span bridge;
- Installation of ditches, diversion channels, riprap and approximately six (6) culverts along road;
- Use of erosion and sediment control methods (e.g., application of mulches, erosion control products in ditches, topsoil re-application and seeding, rock and or sandbag check dams, polyethylene sheeting and other soil covers, sediment fencing, berms or earth dykes, sediment retention ponds, pumps and sediment filter bags, flocculents, or chemical additives);
- Use of heavy equipment (dump trucks, bulldozer, excavators, grader, crusher, compactor and water truck) to conduct general earth works and the development as well as maintenance of the road;
- Potential use of a helicopter for route surveying and other activities;
- Ongoing operations and maintenance of road, culvert and bridge following construction; and
- Use of local facilities in Naujaat for accommodations, water source, and waste management.

3. Inclusion or Exclusion to Scoping List

In addition to the scope as described above and pursuant to paragraph 86(1)(a) of the *NuPPAA*, the NIRB has identified additional works to be sufficiently related to the project to form part of it. Following consultation with the Proponent and a referral by the Commission on April 26, 2019, the NIRB resumed the assessment of the project proposal and included the following within the scope of the project:

- Eight (8) borrow sites and other gravel quarries along the road alignment and any access roads as required; and
- Potential for blasting of bedrock exposures to make riprap and rock fills.

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. However, the NIRB notes that any additional quarry sources not identified in the application that may be used by the Hamlet of Naujaat would require a separate assessment by the NIRB under s. 86 of the *NuPPAA*.

It is also noted that the Hamlet has coordinated with three (3) companies to develop the proposal and receive assistance with required engineering, environmental studies, permitting, early-stage financing and potential construction: Onsite Engineering Ltd. (routing, design and potential construction of the trail), Ecologic Consultants Ltd. (permitting and environmental studies) and North Arrow Minerals (logistics and funding for Onsite and Ecologic's preconstruction work on the trail). North Arrow Minerals Inc. (North Arrow) operates the Naujaat Diamond Project (formerly the Qilalugaq Project, NIRB File No. 12EN012), an ongoing diamond exploration program within the municipality boundaries of Naujaat. The project proposal notes that the trail could be used by North Arrow to access mineral tenure and the NIRB understands that North Arrow's intention is to develop a spur road from its mineral tenure to connect with and utilize the Hamlet's trail once constructed. Further, in its 2018 Annual Report submitted to the NIRB on December 10, 2018, North Arrow indicated that the trail would be essential to the next stage of

the assessment for the Naujaat Diamond Project which would involve transporting 10,000 tonnes of Q1-4 kimberlite bulk sample back to Naujaat for processing. The NIRB expects that potential future connection of North Arrow’s mineral tenure and utilization of the Hamlet road to support mineral exploration activities would be assessed as a significant amendment to the Naujaat Diamond Project, NIRB File No. 12EN012, should it be formally proposed.

4. Key Stages of the Screening Process

The following key stages were completed:

| Date | Stage |
|--|--|
| January 14, 2019 April 26, 2019 | Receipt of project proposal and positive conformity determination (Keewatin Regional Land Use Plan) from the NPC |
| January 14, 2019 February 8, 2019 March 5, 2019 March 20, 2019 April 1, 2019 | Information requests |
| February 22, 2019 March 11, 2019 March 30, 2019 | Proponent responded to information requests |
| April 9, 2019 | Inclusion of scope pursuant to s. 86(1)(a) of the <i>NuPPAA</i> |
| May 1, 2019 | Scoping pursuant to s. 86(1) of the <i>NuPPAA</i> |
| May 7, 2019 | Public engagement and comment request |
| May 28, 2019 | Receipt of public comments |
| June 4, 2019 | Proponent provided with an opportunity to address comments/concerns raised by public |
| June 17, 2019 | Request for Ministerial Extension |
| June 18, 2019 | Proponent responded to comments/concerns raised by public |

5. Public Comments and Concerns

Notice regarding the NIRB’s screening of this project proposal including the inclusion of scope activities was distributed on May 7, 2019 to community organizations in Naujaat, 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 28, 2019 regarding:

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

On or before May 28, 2019 the NIRB received comments from the following interested parties (see Summary of Comments and Concerns section below):

- **Kivalliq Inuit Association (KivIA)**
- **Government of Nunavut (GN)**
- **Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC)**
- **Fisheries and Oceans Canada (DFO)**
- **Transport Canada (TC)**

a. Summary of Public Comments and Concerns Received during the Public comment period of this file

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

Kivalliq Inuit Association (KivIA)

- Recommended dust mitigation and monitoring during and after construction.
- Recommended the road design not create a barrier to animals.
- Recommended the road alignment ensure minimum distances from archeological sites.
- Recommended testing of road materials for Acid Rock Draining and Metal Leaching (ARD/ML).
- Recommended a study of snow accumulation along the proposed road route.
- Recommended the Naujaat Hunters and Trappers Organization (HTO) be involved in monitoring hunting-related traffic on the road.

Government of Nunavut (GN)

- Noted the presence of numerous archaeological sites along the planned route and recommended a site inventory by conducted by a qualified archaeologist. Noted regulatory requirements pertaining to archaeological sites.
- Indicated insufficient information was provided by the Proponent to allow an accurate assessment of the project and potential environmental impacts.
- Noted the road appeared to partially cross the Wager Bay caribou herd calving area and could cause indirect adverse effects due to greater access to calving grounds, access corridors and migratory habitat allowing for increased hunting and tourism pressure. Also noted that the road could facilitate mineral exploration and other industrial activities.
- Recommended more information on potential impacts on caribou and other wildlife should be provided by the proponent.
- Recommended the Proponent develop a Road Management Plan for construction and use.
- Recommended the Proponent develop a Wildlife Monitoring and Mitigation Plan and responsibilities of Environmental Monitors and their training plan.
- Noted use of helicopters could disturb caribou during calving and recommended restrictions on helicopter usage.
- Noted that further information and quarry management plans would be required if any quarries were proposed to be developed in the future.
- Recommended the Proponent identify locations where blasting may be necessary and provide blasting management plans.
- Recommended measures to prevent the introduction of invasive species and prevent erosion.

- Recommends any use of the road for development such as quarries and use by North Arrow should require a separate application to the NIRB.

Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC)

- Recommended terms and conditions to mitigate potential fuel spills.

Fisheries and Oceans Canada (DFO)

- Noted there was insufficient information in the application to determine if the proposal could result in serious harm to fish. Requested the Proponent complete a *request for review form* from DFO.
- Noted the responsibility of the Proponent to provide notification to DFO in the event of having caused, or are about to cause, serious harm to fish that are part of or support a commercial, recreational or Aboriginal fishery.

Transport Canada (TC)

- Provided recommendations for considerations related to the *Navigation Protection Act* and the *Canada Shipping Act*.

b. 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 June 18, 2019:

- In response to the KivIA's comments:
 - The Construction Environmental Management Plan (CEMP) will incorporate dust management and monitoring.
 - The design and construction of the trail will incorporate wildlife movement considerations.
 - The Hamlet is currently in the process of engaging a professional archaeologist to assist with confirming archaeological sites along the proposed trail alignment and to develop strategies to avoid, minimize, and mitigate potential impacts. Field work is planned for summer 2019.
 - Once the final alignment has been selected and trail design completed, ARD/ML will be assessed along the route where bedrock may be disturbed.
 - The HTO has already been involved in the early planning stages.
- In response to the GN's comments:
 - The Hamlet is currently in the process of engaging a professional archaeologist to assist with confirming archaeological sites along the proposed trail alignment and to develop strategies to avoid, minimize, and mitigate potential impacts. Field work is planned for summer 2019. The Hamlet proposes that the final determination of appropriate buffer size will be made by a professional archaeologist in consultation with the Department of Culture and Heritage.

- Community knowledge indicates the Wager Bay caribou herd does not have a specific calving ground that is used on an annual basis and the currently mapped ranges do not have much actual relevance on the land.
- Once the preferred route for the community access trail has been ground-truthed and the design finalized, the Proponent is committed to working with community members, the Arviq HTO, and regulators to develop a sound wildlife management plan that includes mobile mitigation measures and a trail use management plan that will address each of the concerns listed by the GN.
- Based on the current project schedule, helicopter use for trail design and engineering is no longer thought to be necessary. A helicopter may be required to facilitate the requested archaeological survey. If required, the Proponent will develop a wildlife management plan associated with the helicopter use.
- The Proponent noted the difference between a potential end use of the trail (i.e., the development of aggregate sources or quarry activities by the Proponent) and the potential that local surficial materials could be used to facilitate trail construction. In the former case, the Proponent will pursue appropriate permits and regulatory guidance. In the latter case, it is currently not known whether local borrow sources will be required. If so, the Proponent will develop borrow management plans that will be incorporated into the overall CEMP.
- It is currently unknown if blasting is required to construct the proposed community access trail. It is difficult to develop a management plan for an unknown. If blasting is deemed necessary, the Proponent will work with NIRB (and other regulators and stakeholders as appropriate) to develop the necessary management plans.
- The Proponent commits to incorporating both erosion and sedimentation control (ESC) and invasive species management protocols into the CEMP, with carryover into operations and maintenance of the community access trail. One of the Proponent's partners in the project, EcoLogic Consultants, has specialists in both areas that will work with the Proponent and local knowledge holders to develop plans that are site- and biome-appropriate.
- The roles and responsibilities of the Environmental Monitors (including their training) will be fully described, as requested, in the CEMP that will be developed following the finalization of the route alignment and design. Part of the EM responsibilities will be the reporting of all compliance issues with respect to the CEMP (and other permit requirements), including interactions with wildlife.
- The Proponent will work with trail users and the HTO to develop a wildlife data reporting and management plan to be implemented once the trail is useable. The Proponent will use these data adaptively to address potential ongoing impacts from the use of the trail
- Any use of the trail for industrial purposes either by the Proponent (e.g. potential development of aggregate source) or a third party (e.g. bulk sample transport by North Arrow) will go through the appropriate permitting channels prior to the initiation of that use.
- In response to CIRNAC's comments:
 - Upon completion of the route alignment and trail design, the Proponent will develop a comprehensive CEMP that will include spill prevention and response measures, including those listed in the comment.

- In response to DFO’s comments:
 - The Proponent is planning to submit a Request for Review upon completion of route selection and engineering design and will explicitly incorporate the Duty to Report into the project CEMP.
- In response to TC’s comments:
 - If the project is approved, the Proponent and its partners will ensure that all vendors and contractors will abide by federal statues and regulations.

7. Time of Report Extension

As a result of the time required to allow parties sufficient time to comment on the project as well as to let the Proponent provide a response to the comments, 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 s. 92(3) of the *NuPPAA*. Therefore, on June 17, 2019 the NIRB wrote to the Minister of Fisheries and Oceans and the Canadian Coast Guard, and the Minister of Minister of Natural Resources, 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 s. 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:

| Factor | Comment |
|--|--|
| <p>The size of the geographic area, including the size of wildlife habitats, likely to be affected by the impacts.</p> | <ul style="list-style-type: none"> • The physical footprint of the proposed project components consists of an all-weather road approximately 15 kilometers (km) long and six (6) meters (m) wide, as well as associated quarries needed for material. The proposal will include ten (10) stream crossings (culverts) and one (1) bridge. • Proposed activities may take place within habitats for many far-ranging wildlife, migratory and non-migratory birds and Species at Risk (such as Polar Bears) and may potentially affect animal migratory patterns. |

| Factor | Comment |
|--|---|
| The ecosystemic sensitivity of that area. | <ul style="list-style-type: none"> • No specific areas of ecosystemic sensitivity have been identified by the Proponent within the physical footprint of the proposed project. • The Government of Nunavut has identified the area as a potential caribou calving and migratory area. |
| The historical, cultural and archaeological significance of that area. | <ul style="list-style-type: none"> • The Government of Nunavut has noted numerous archaeological sites along the planned road alignment. • The Proponent has indicated an archaeological survey will be conducted to identify sites and to plan the road route to avoid them. |
| The size of the human and the animal populations likely to be affected by the impacts. | <ul style="list-style-type: none"> • The proposed project has the potential to interact with caribou movement due to the location of the road. • The construction of the road has the potential to interfere with community use of the existing all-terrain vehicle (ATV) trail and other land use. |
| 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. | <ul style="list-style-type: none"> • A zone of influence of up to 100 km from the most potentially-disruptive project activities was selected for the NIRB's assessment. With adherence to the relevant regulatory requirements and application of the mitigation measures recommended by the NIRB, no significant residual effects are expected to occur. |
| 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. | <ul style="list-style-type: none"> • The mitigation measures recommended by the NIRB have been designed with consideration for the potential for cumulative effects to result from the impacts of the project combined with other past, present and reasonably foreseeable projects. • The Proponent and the NIRB note that any proposed projects which would involve use of the road not assessed would require individual assessments at which time cumulative effects may be identified. |

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| Any other factor that the Board considers relevant to the assessment of the significance of impacts. | <ul style="list-style-type: none"> • The road will provide easier access to community members to the land than the existing ATV trail. • The road may allow the community to access additional aggregate sources. |
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Other past, present and reasonably foreseeable projects considered in this assessment:

| NIRB Number | Project | Project Title | Project Type |
|---|----------------|---------------------------------|---------------------|
| <i>Present Projects – approved or in operation</i> | | | |
| 12EN012 | | Qilalugaq Project | Mineral Exploration |
| <i>Past Projects</i> | | | |
| 02EN012 | | Mineral Exploration | Mineral Exploration |
| 04AN007 | | Mineral Exploration (Amendment) | Mineral Exploration |
| 04YN096 | | Aquatic Baseline Studies | Research |
| 05EN020 | | Mining Exploration and Campsite | Mineral Exploration |

VIEWS OF THE BOARD

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

Ecosystem, wildlife habitat and Inuit harvesting activities:

- Potential adverse impacts to wildlife, migratory birds and non-migratory birds and their habitats due to increase in noise and disturbance generated from the use of heavy equipment for the extraction of quarry material and road construction. The potential for impacts is applicable to a corridor approximately 15 kilometers long. The Board recommends terms and conditions 13 through 19 and 26 through 31 to mitigate any potential adverse effects to wildlife and migratory and non-migratory birds from quarrying activities and road construction. The Proponent would also be required to follow all acts and regulations applicable to the project proposal (see Regulatory Requirements section).
- Potential adverse impacts to terrestrial wildlife including caribou from potential of the road acting as a physical barrier to movement and migration during construction and operation. The Proponent has indicated that the final design and construction of the road will take into account wildlife movement, and a wildlife monitoring program will be developed to document the effect of the road on wildlife and develop appropriate mitigation measures. The Board is also recommending terms and conditions 13, and 36 through 31 to mitigate potential impacts to wildlife, including caribou.
- Potential negative impact to wildlife from mortalities from collisions with vehicles. The Proponent has committed to producing a wildlife management plan incorporating

mitigation measures to minimize impacts the potential interactions between vehicles and wildlife. The Board is also recommending terms and conditions 14 through 23 to mitigate potential negative impacts to wildlife.

- Potential impacts to wildlife and migratory and non-migratory birds through use of a helicopter for site surveys and route planning. The Board is recommending terms and conditions 14 and 20 through 25 to mitigate potential impacts due to helicopter use.
- Potential adverse effects to vegetation, soil, permafrost, surface water quality, and fish and fish habitat from the deposition of dust, accidental leaks and spillages of fuels, from transportation and heavy equipment operations, and from generation of refuse. In addition, there is potential for erosion, sedimentation and water runoff from the quarry areas due to the excavation of quarry materials. Further, quarrying and road construction may cause permafrost degradation. It is expected that standard operational considerations would mitigate potential effects to the land and surface water quality. The Proponent has committed to developing erosion control plans within the Construction Environmental Management Plan. The Board also recommends terms and conditions 4 through 12, 32, 33, 35 through 37, 40 through 43, 46 and 47 to mitigate the potential adverse effects from the quarrying and road construction activities. The Proponent would also be required to follow all act and regulations applicable to the project proposal (see Regulatory Requirements section).
- Potential negative effects to ambient air quality due to offsite migration of fugitive dust and emissions generated by the use of heavy equipment for transport of aggregate materials, in site preparation, excavation and grading, and quarrying operations, and by noise generated by equipment. The Board recommends terms and conditions 34, 35, and 44 to ensure appropriate dust suppression measures are implemented to address any potential air quality issues that may arise as result of the project activities.
- Potential adverse impacts to public safety, and public and traditional land use activities in the area due to the development of road construction and quarrying activities. The Board has recommended term and condition 48 to ensure that the Proponent engages with local residents regarding planned activities in the area and terms and conditions 39 and 49 have been recommended to ensure that project activities do not interfere with Inuit wildlife harvesting or traditional land use activities in the area. The Board is also recommending term and condition 38 in order to mitigate dangers to public safety.

Socio-economic effects on northerners:

- Potential negative impacts to historical, cultural, and archeological sites. The GN has noted that there are known archeological sites in the vicinity of the planned route. The Proponent has indicated that it will be conducting an archaeological survey to identify sites in order to avoid them during construction. The Proponent is also required to follow specific Acts and Regulations (see Regulatory Requirements section) relevant to the proposed project to mitigate and potential adverse affects or disturbance to archeological sites. The Board is recommending term and condition 45 to mitigate potential negative impacts to any archaeological sites encountered.

- Potential positive effects in allowing access to aggregate resources for hamlet use. The Board notes that the quarrying activities other than associated with road construction and maintenance would require separate application for assessment as a new project proposal.
- Potential positive impact in upgrading an existing trail to allow for easier and safer access to residents. The Proponent has noted the proposed road would replace an existing all-terrain vehicle trail used by Naujaat residents. The road and water crossings would allow for easier and safer travel and potentially minimize impacts to the vegetation and wildlife.
- Potential cumulative impact in use of the road for industrial purposes such as transporting aggregate or future use by exploration projects. The Proponent has noted that any such use of the road would require individual application(s) and screening for such proposed uses.
- Potential positive impacts in local employment, local sourcing of supplies, and services. The Board is recommending term and condition 50 to ensure the local community has the opportunity to receive economic benefits including hiring locally to the extent possible.

Significant public concern:

- No significant public concern was expressed during the public commenting period for this file. Term and condition 48 is recommended by the Board to ensure that the affected community and organizations are informed about the project proposal, and to provide the Proponent with an opportunity to proactively address or mitigate any concerns that may arise from the project activities findings.

Technological innovations for which the effects are unknown:

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

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: 1-3.

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.

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

General

1. The Hamlet of Naujaat (the Proponent) shall maintain a copy of the Project Terms and Conditions at the site of operation at all times.
2. The Proponent shall operate in accordance with all commitments stated in correspondence provided to the Nunavut Planning Commission (NPC File No.: 148988 and 149131) and the NIRB (Online Application Form, March 11, 2019; Response to Inclusion, March 30, 2019; response to concerns, June 18, 2019).
3. The Proponent shall operate the site in accordance with all applicable Acts, Regulations and Guidelines.

Water Use

4. 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 otherwise authorized by the Nunavut Water Board.
5. The Proponent shall not use water, including constructing or disturbing any stream, lakebed or the banks of any definable water course unless otherwise authorized by the Nunavut Water Board.

Waste Disposal

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

Fuel and Chemical Storage

7. The Proponent shall store all fuel and chemicals in such a manner that they are inaccessible to wildlife.
8. The Proponent shall locate all fuel and other hazardous materials a minimum of thirty-one (31) metres away from the high water mark of any water body and in such a manner as to prevent their release into the environment unless otherwise authorized by the Nunavut Water Board.
9. 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.
10. 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.
11. 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.

12. 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

13. The Proponent shall ensure that there is no damage to wildlife habitat in conducting this operation.
14. 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.
15. The Proponent shall not hunt or fish, unless proper Nunavut authorizations have been acquired.
16. The Proponent shall ensure that all project personnel are made aware of the measures to protect wildlife and are provided with training and/or advice on how to implement these measures.

Migratory Birds and Raptors Disturbance

17. The Proponent shall avoid conducting land clearing activities during the migratory bird season.
18. The Proponent shall not disturb or destroy the nests or eggs of any birds. If active nests of any birds are discovered or located (i.e., with eggs or young), the Proponent shall avoid these areas until nesting is complete and the young have naturally left the vicinity of the nest by establishing a protection buffer zone¹ appropriate for the species and the surrounding habitat.
19. The Proponent shall minimize activities during periods when birds are particularly sensitive to disturbance such as migration, nesting and moulting.
20. The Proponent shall ensure its aircraft avoid excessive hovering or circling over areas where bird presence is likely.

Aircraft Flight Restrictions

21. The Proponent shall not alter flight paths to approach wildlife and shall avoid flying directly over animals.
22. The Proponent shall restrict aircraft/helicopter activity related to the project to a minimum flight altitude of 610 metres above ground level except during landing, take-off or if there is a specific requirement for low-level flying, which does not disturb wildlife or migratory birds.
23. The Proponent shall ensure that aircraft maintain a vertical distance of 1000 metres and a horizontal distance of 1500 metres from any observed groups (colonies) of migratory birds. Aircraft should avoid critical and sensitive wildlife areas at all times by choosing alternate flight corridors.
24. The Proponent shall ensure that aircraft/helicopter do not, unless for emergency, touch-down in areas where wildlife are present.

¹ Recommended setback distances to define buffer zones have been established by Environment and Climate Change Canada for different bird groups nesting in tundra habitat and can be found at www.ec.gc.ca/paom-itmb.

25. 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

26. The Proponent shall avoid interfering with any paths or crossings known to be frequented by caribou during periods of migration.

27. 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.

28. 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.

29. The Proponent shall not construct or operate any camp, cache any fuel or conduct blasting within ten (10) kilometres, or conduct any drilling operation within five (5) kilometres of any designated caribou water crossings. The Proponent shall avoid interfering with any paths or crossings known to be frequented by caribou during periods of migration.

30. During the period of May 15 to July 15, the Proponent shall suspend all project operations, including low-level over flights, drilling, blasting/trenching, and use of snow mobiles and all-terrain vehicles outside the immediate vicinity of the camp. Should the results of localized monitoring satisfy the Land Use Inspector that project operations may resume without disturbing pregnant caribou cows or cows with young calves, the suspension may be lifted for the period specified.

31. Should pregnant caribou cows, cows with young calves, or groups of 50 or more caribou be observed within one (1) kilometre of project operations at any time, the Proponent shall suspend all operations in the vicinity, including low-level over flights, drilling, blasting/trenching, and use of snow mobiles and all-terrain vehicles outside the immediate vicinity of the camp, until caribou are no longer in the immediate area.

All-Weather Road and Ground Disturbance

32. 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.

33. The Proponent shall implement suitable dust, erosion and sediment suppression measures on all areas before, during and after conducting activities in order to prevent sediments or fugitive dust from entering any waterbody or surrounding environment.

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

Aggregate Removal within Existing Quarries

35. 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.

36. The Proponent shall not remove any material from below the ordinary high water mark of any lake or stream.
37. The Proponent shall not deposit or permit the deposit of sediment into any water body.

Establishment of New Quarries

38. The Proponent shall clearly stake and flag pit and quarry boundaries so they remain visible to other land users.
39. The Proponent shall locate quarry/pit facilities so as to avoid all recreational sites and public use areas, and to protect unique geographical features and natural aesthetics.
40. 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.
41. The Proponent shall ensure that silt fences/curtains are installed down gradient of any quarry activities.
42. 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.
43. The Proponent shall locate screening and crushing equipment on stable ground, at a location with ready access to stockpiles.
44. 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.

Heritage Sites

45. No activities shall be conducted in the vicinity (50 metres buffer zone) of any archaeological/historical sites. If archaeological sites or features are encountered, activities shall immediately be interrupted and moved away from this location. Each site encountered needs to be recorded and reported to the Government of Nunavut-Department of Culture and Heritage.

Restoration of Disturbed Areas

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

Other

48. The Proponent should engage with local residents regarding planned activities in the area and should solicit available Inuit Qaujimaningit and information regarding current recreational and traditional usage of the project area which may inform project activities. Posting of translated public notices and direct engagement with potentially interested groups and individuals prior to undertaking project activities is strongly encouraged.
49. The Proponent shall ensure that project activities do not interfere with Inuit wildlife harvesting or traditional land use activities.

50. The Proponent should, to the extent possible, hire local people and access local services where possible.

MONITORING AND REPORTING REQUIREMENTS

In addition, the Board is recommending the following:

Wildlife Mitigation and Monitoring Plan

1. Prior to the start of project activities, the Proponent shall submit an updated Wildlife Mitigation and Monitoring Plan (WMMP) to the Nunavut Impact Review Board, Government of Nunavut Department of Environment, and the Kivalliq Inuit Association. At a minimum, this plan should include a proposed template for a wildlife log/record of observations and proposed mitigation measures for caribou, migratory birds, grizzly bear, Polar bear, and other sensitive species that may be encountered within the project area, and a wildlife data reporting and management plan. The Proponent is encouraged to consult with the Government of Nunavut's Regional Biologists during the revision of the WMMP, regarding project schedule and timelines so as to ensure adequate mitigation of potential wildlife impacts.

Construction Environmental Management Plan

2. Prior to the start of project activities, the Proponent shall submit an updated Construction Environmental Management Plan (CEMP) to the Nunavut Impact Review Board, Government of Nunavut Department of Environment, Crown-Indigenous Relations and Northern Affairs Canada, and the Kivalliq Inuit Association. At a minimum, this plan should include dust and erosion control measures to be implemented during construction, for acid rock draining and metal leaching (ARD/ML) testing and mitigation strategies, and address public safety concerns during construction.

Road Management Plan

3. Prior to the start of construction, the Proponent shall submit a Road Management Plan to the Nunavut Impact Review Board, Government of Nunavut Department of Environment, Crown-Indigenous Relations and Northern Affairs Canada, and the Kivalliq Inuit Association. The plan should include plans regarding road maintenance, dust control measures (if necessary), and safety matters including speed limits and any restrictions on road use.

Quarry Abandonment and Restoration Plan

4. The Proponent shall submit a revised and final version of the Quarry Abandonment and Restoration Plan to the Nunavut Impact Review Board, Crown-Indigenous Relations and Northern Affairs Canada, and Government of Nunavut- Department of Environment prior to undertaking of quarry activities for the purpose of road construction and maintenance in the potential development area. The revised Plan should include procedures for using native plant species for re-vegetation in order to eliminate risk of introducing invasive species to the area pursuant to the Wildlife Act.

Spill Contingency Plan

5. The Proponent shall update its Spill Contingency Plan to include the up to date emergency contact numbers for the Government of Nunavut-Department of Environment, Manager of

Environmental Protection (867-975-7748) and Environment and Climate Change Canada, Enforcement Branch (867-975-4644).

OTHER NIRB CONCERNS AND RECOMMENDATIONS

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

Change in Project Scope

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

Copy of licences, etc. to the Board and Commission

2. As per s. 137(4) of the *NuPPAA*, responsible authorities are required to submit a copy of each licence, permit or other authorization issued for the Project to the Nunavut Planning Commission and the NIRB. Please forward a copy of the licences, permits and/or other authorizations to the NIRB directly at info@nirb.ca or upload a copy to the NIRB's online registry at www.nirb.ca.

Use of Inuit Qaujimaningit

3. The Proponent is encouraged to work with local communities and knowledge holders to inform project design, to carry out the project, and to confirm or validate the perspectives represented in publications, film or other media produced as part of the project. Care should be taken to ensure that Inuit Qaujimaningit and local knowledge collected for the project is used with permission and is accurately represented.

Bear and Carnivore Safety

4. The Proponent should review the Government of Nunavut's booklet on Bear Safety, which can be downloaded from this link: http://gov.nu.ca/sites/default/files/bear_safety_-_reducing_bear-people_conflicts_in_nunavut.pdf. Further information on bear/carnivore detection and deterrent techniques can be found in the "*Safety in Grizzly and Black Bear Country*" pamphlet, which can be downloaded from this link: http://www.enr.gov.nt.ca/sites/default/files/web_pdf_wd_bear_safety_brochure_1_may_2015.pdf.
5. 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.
6. 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 Naujaat, phone:867-462-4002).

Migratory Birds

7. 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.
8. 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/>.

Nunavut Water Board

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

REGULATORY REQUIREMENTS

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

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>).
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 *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.
8. The *Explosives Act* (<http://laws-lois.justice.gc.ca/eng/acts/E-17/page-1.html#h-5>).

Other Applicable Guidelines

9. The *Guidelines for the use of Explosives in or near Canadian Fisheries Waters* (<http://publications.gc.ca/site/eng/82558/publication.html>).
10. The *Northern Land Use Guidelines Pits and Quarries* (http://publications.gc.ca/collections/collection_2010/ainc-inac/R2-226-8-2009-eng.pdf) provide guidelines for progressive reclamation applicable to establishment of pits and quarries.

CONCLUSION

The foregoing constitutes the Board's screening decision with respect to the Hamlet of Naujaat's "Community Access Trail". The NIRB remains available for consultation with the Ministers regarding this report as necessary.

Dated August 23, 2019 at Baker Lake, NU.



Kaviq Kaluraq, A/Chairperson

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

APPENDIX A: SPECIES AT RISK IN NUNAVUT

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

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

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

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

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

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

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

Updated: November 2018

| Terrestrial Species at Risk² | COSEWIC Designation | Schedule of SARA | Government Organization with Primary Management Responsibility³ |
|--|----------------------------|-------------------------|---|
| Migratory Birds | | | |
| Buff-breasted Sandpiper | Special Concern | Schedule 1 | Environment and Climate Change Canada (ECCC) |
| Common Nighthawk | Threatened | Schedule 1 | ECCC |
| Eskimo Curlew | Endangered | Schedule 1 | ECCC |
| Harlequin Duck | Special Concern | Schedule 1 | ECCC |
| Harris's Sparrow | Special Concern | Schedule 1 | ECCC |
| Horned Grebe | Special Concern | Schedule 1 | ECCC |
| Ivory Gull | Endangered | Schedule 1 | ECCC |
| Olive-sided Flycatcher | Special Concern | Schedule 1 | ECCC |
| Red Knot Islandica Subspecies | Special Concern | Schedule 1 | ECCC |
| Red-necked Phalarope | Special Concern | No Schedule | ECCC |
| Ross's Gull | Threatened | Schedule 1 | ECCC |
| Rusty Blackbird | Special Concern | Schedule 1 | ECCC |
| Short-eared Owl | Special Concern | Schedule 1 | ECCC |
| Vegetation | | | |
| Porsild's Bryum | Threatened | Schedule 1 | Government of Nunavut (GN) |
| Arthropods | | | |
| Transverse Lady Beetle | Special Concern | No Schedule | GN |
| Terrestrial Wildlife | | | |
| Caribou (Dolphin and Union Population) | Endangered | Schedule 1 | GN |
| Caribou (Barren-ground Population) | Threatened | No Schedule | GN |
| Caribou (Torngat Mountains Population) | Endangered | No Schedule | GN |
| Grizzly Bear (Western Population) | Special Concern | Schedule 1 | GN |
| Peary Caribou | Threatened | Schedule 1 | GN |
| Polar Bear | Special Concern | Schedule 1 | GN |
| Wolverine | Special Concern | Schedule 1 | GN |
| Marine Wildlife | | | |
| Atlantic Walrus (High Arctic Population) | Special Concern | No Schedule | Fisheries and Oceans Canada (DFO) |
| Atlantic Walrus (Central/Low Arctic Population) | Special Concern | No Schedule | DFO |
| Beluga Whale (Cumberland Sound Population) | Threatened | Schedule 1 | DFO |
| Beluga Whale (Eastern Hudson Bay Population) | Endangered | No Schedule | DFO |
| Beluga Whale (Eastern High Arctic-Baffin Bay Population) | Special Concern | No Schedule | DFO |

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

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

| Terrestrial Species at Risk² | COSEWIC Designation | Schedule of SARA | Government Organization with Primary Management Responsibility³ |
|--|----------------------------|-------------------------|---|
| Beluga Whale (Western Hudson Bay Population) | Special Concern | No Schedule | DFO |
| Fish | | | |
| Atlantic Cod (Arctic Lakes Population) | Special Concern | No Schedule | DFO |
| Fourhorn Sculpin (Freshwater Form) | Data Deficient | Schedule 3 | DFO |
| Lumpfish | Threatened | No Schedule | DFO |
| Thorny Skate | Special Concern | No Schedule | DFO |

APPENDIX B: ARCHAEOLOGICAL AND PALAEOLOGICAL RESOURCES TERMS AND
CONDITIONS FOR LAND USE PERMIT HOLDERS



INTRODUCTION

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

TERMS AND CONDITIONS

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

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

Note that the above-mentioned functions require either a Nunavut Archaeologist Permit or a Nunavut Palaeontologist Permit. CH is authorized by way of the *Nunavut and Archaeological and Palaeontological Site Regulations*⁴ to issue such permits.

⁴P.C. 2001-1111 14 June, 2001

- 2) The permittee/proponent shall not operate any vehicle over a known or suspected archaeological or palaeontological site.
- 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*⁵, the federal government can make regulations for the protection, care and preservation of palaeontological and archaeological sites and specimens in Nunavut. Under the *Nunavut Archaeological and Palaeontological Sites Regulations*⁶, it is illegal to alter or disturb any palaeontological or archaeological site in Nunavut unless permission is first granted through the permitting process.

Definitions

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

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

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

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

“fossil” includes:

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

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

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

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

Introduction

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

CH is the Nunavut Government agency which oversees the protection and management of heritage resources in Nunavut, in partnership with land claim authorities, regulatory agencies, and the federal government. Its role in mitigating impacts of developments on heritage resources is as

⁵ s. 51(1)

⁶ P.C. 2001-1111 14 June, 2001

follows: to identify the need for an impact assessment and make recommendations to the appropriate regulatory agency; set the terms of reference for the study depending upon the scope of the development; suggest the names of qualified individuals prepared to undertake the study to the developer; issue an archaeologist or palaeontologist permit authorizing field work; assess the completeness of the study and its recommendations; and ensure that the developer complies with the recommendations.

The primary regulatory agencies that CH provides information and assistance to are the Nunavut Impact Review Board, for development activities proposed for Inuit Owned Lands (as defined in Section 1.1.1 of the *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.