



SCREENING DECISION REPORT
NIRB FILE No.: 25YN001

NPC File No.: 150581

April 16, 2025

Following the Nunavut Impact Review Board’s (NIRB or Board) assessment of all materials provided, the NIRB is recommending that a review of University of Victoria’s “Sikunnguaq – The Likeness or Image of Ice in Maps” is not required pursuant to Article 12, Section 12.4.4(a) of the *Agreement between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in right of Canada (Nunavut Agreement)* and s. 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, issued in accordance with s. 92(2)(a) of *NuPPAA*, the NIRB is of the view that the project proposal is not likely to cause significant public concerns, and it is unlikely to result in significant adverse environmental and social impacts. The NIRB therefore recommends that the responsible Minister(s) accepts this Screening Decision Report.

OUTLINE OF SCREENING DECISION REPORT

REGULATORY FRAMEWORK	2
PROJECT OVERVIEW & THE NIRB ASSESSMENT PROCESS	2
ASSESSMENT OF THE PROJECT PROPOSAL IN ACCORDANCE WITH PART 3 OF NUPPAA	5
VIEWS OF THE BOARD	7
RECOMMENDED PROJECT-SPECIFIC TERMS AND CONDITIONS	9
OTHER NIRB CONCERNS AND RECOMMENDATIONS	12
CONCLUSION	13
TABLES	
TABLE 1: NIRB’S ASSESSMENT PROCESS	2
TABLE 2: COMMENTS RECEIVED	4
TABLE 3: SUMMARY OF THE BOARD’S ASSESSMENT OF FACTORS S. 90 NUPPAA	5
TABLE 4: PAST, PRESENT, AND REASONABLY FORESEEABLE PROJECTS CONSIDERED	6
APPENDICES	
APPENDIX A: SPECIES AT RISK IN NUNAVUT	14
APPENDIX B: ARCHAEOLOGICAL AND PALAEOLOGICAL RESOURCES TERMS AND CONDITIONS FOR LAND USE PERMIT HOLDERS	16

REGULATORY FRAMEWORK

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*. The purpose of screening is provided for under Article 12, Section 12.4.1 of the *Nunavut Agreement* and s. 88 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 indicating one of three options:

- (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.

PROJECT OVERVIEW & THE NIRB ASSESSMENT PROCESS

On February 7, 2025, the NIRB received a referral to screen University of Victoria’s “Sikunnguaq – The Likeness or Image of Ice in Maps” project proposal from the Nunavut Planning Commission (Commission), with an accompanying positive conformity determination with the North Baffin Regional Land Use Plan. All documents received and pertaining to this project proposal can be accessed from the NIRB’s Public Registry by using any of the following search criteria or www.nirb.ca/project/126079.

- Project Name: Sikunnguaq – The Likeness or Image of Ice in Maps
- NIRB File No.: 25YN001
- NIRB Application No.: 126079

Table 1: NIRB’s Assessment Process

Date	Stage
January 1, 2025	Receipt of project proposal and positive conformity determination (North Baffin Regional Land Use Plan) from the Commission
January 7, 2025	Pursuant to s. 144(1) of the <i>NuPPAA</i> requested an application on Public Registry and provide information
January 28, 2025	Receipt of online application from Proponent
February 11, 2025	Scoping pursuant to s. 86(1) of the <i>NuPPAA</i>
February 11, 2025	NIRB conducted an inclusion or exclusion of scope
March 12, 2025	Translated Public engagement and comment request (which included terms and conditions) was issued to the following communities
March 24, 2025	Receipt of public comments
April 16, 2025	Issuance of Screening Decision Report

1. Project Scope

Project:	Sikunnguaq – The Likeness or Image of Ice in Maps
Region:	Kitikmeot and Qikiqtani Regions

Location:	Dease Strait off the Coast of Cambridge Bay, Rasmussen Basin off the Coast of Gjoa Haven, Eclipse Sound off the Coast of Pond Inlet, and on the Sea Ice south of Qikiqtarjuaq
Closest Community:	Cambridge Bay, Gjoa Haven, Qikiqtarjuaq, and Pond Inlet
Summary of Project Description:	The Proponent intends to conduct research to develop sea ice information for satellite data to allow for safe sea ice travel needs, create image layers for map-makers in communities, and produce satellite and related training materials for satellite remote sensing technologies. This information would support <i>Inuit Qaujimagatuqangit</i> for mapping safe sea ice travel, and may improve health, safety, and climate resilience.
Project Proposed Timeline:	March 4 2025 to May 20, 2026

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

- Proposed project activities would measure snow and sea ice properties on areas of sea ice near the four (4) participating communities, making day trips by snowmobile from research stations and local accommodations to understand how sea ice features related to safe travel could be identified in new satellite technologies, focused on a radar-based satellite technology called synthetic aperture radar (SAR).
 - Up to 12 snowmobiles to access field sites from project communities in 2025 and 2026;
 - Up to 4 surveying drones to map sea ice surface roughness including a LIDAR drone;
 - Use of various devices for measuring interference regarding the sea ice/slush and water thickness;
 - Up to 4 electromagnet induction (EM-31)
 - Up to 2 Geophex Ltd. multi-frequency electromagnetic sensor;
 - Collection of data related to air, snow, sea ice thickness, water temperature using various tools:
 - Up to 4 thermistor-based stationary sensor (ice buoy)
 - Up to 4 engine drive, kovacs 2-stroke core barrel engine drive;
 - Up to 4 ice coring systems to retrieve 9cm diameter up to 1m long;
 - Up to 4 ice thickness kits - 2 auger flights (50cm each), a 50cm extension rod, a handbrace, and an ice thickness measuring tape;
 - Up to 4 snow pit kit, each kit containing a foldable shovel, ruler, snow grain card, battery operated temperature probe, brush, cloth and notebook;
 - Use of 1 GNSS receiver, an emlid reach RTK GNSS receiver;
 - Up to 2 hydraprobe snow sensor, a battery operated probe for measuring moisture and electrical conductivity of snow for remote sensing studies;
 - Use of 1 SLF snow sensor, a capacitive sensor for measuring snow density in snow pits.

- Use of 80 liters of gasoline for refueling snowmobiles from research camps or community fuel farms; and
- All waste would be brought back to the community for proper disposal.

2. Inclusion or Exclusion to Scoping List

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.

3. Public Comments and Concerns

Notices regarding the NIRB’s screening of this project proposal were distributed to community organizations (Table 1) as well as to relevant federal and territorial government agencies, Inuit organizations and other parties requesting they provide the Board with any comments or concerns 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 March 24, 2025, the NIRB received comments from the following interested parties:

Table 2: Comments Received

Commenting Party	NIRB Doc ID No.
Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC)	353757
Transport Canada (TC)	353755

a. Summary of Comments and Concerns Received

The following provides a summary of the comments and concerns received by the NIRB in relation to Sikunnguaq – The Likeness or Image of Ice in Maps:

CIRNAC

- CIRNAC recommended the Proponent consider implementing best practices to mitigate potential adverse effects from the project related to fuel management and ensuring the personnel are properly trained in handling fuel and spill response procedures.

TC

- The project does not fall within the Transport Canada’s mandate, so therefore, the TC does not have comments.

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. However, Inuit Qaujimaningit and traditional and community knowledge is incorporated into the terms and conditions recommended below based on information collected from prior and similar projects, data collected and mapped by the Commission, and other available sources.

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. Table 3. The Board took particular care to consider Inuit Qaujimaningit, Indigenous and Community Knowledge in carrying out its assessment and determination of the significance of impacts.

Table 3: Summary of the Board’s Assessment of Factors s. 90 *NuPPAA*

Factor	Comment
The size of the geographic area, including the size of wildlife habitats, likely to be affected by the impacts.	<ul style="list-style-type: none"> ▪ The physical footprints of the proposed project components are in proximity to the communities of Cambridge Bay, Gjoa Haven, Pond Inlet, and Qikiqtarjuaq. ▪ The proposed project would take place within habitats of far-ranging wildlife species such as migratory and non-migratory birds, Arctic fox, Arctic hare and Species at Risk such as Polar Bears.
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 historical, cultural and archaeological significance of that area.	<ul style="list-style-type: none"> ▪ No specific areas of historical, cultural and archaeological significance have been identified by the Proponent within the physical footprint of the proposed project.
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 is unlikely to result in impacts to local human and animal populations.
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 50 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.

Factor	Comment
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"> Table 4 is a list of past, present and reasonably foreseeable projects. The Board recommended terms and conditions along with mitigation measures designed with consideration for the potential for cumulative effects in the Board Views section.
Any other factor that the Board considers relevant to the assessment of the significance of impacts.	<ul style="list-style-type: none"> No other relevant factors were identified; however, see below for Regulatory Requirements mandating mitigation and/or reporting.

Regulatory Requirements

The Proponent is also advised that the following legislation may apply to the Project:
Acts and Regulations

The *Fisheries Act* (<http://laws-lois.justice.gc.ca/eng/acts/F-14/index.html>).

The *Species at Risk Act* (<https://laws-lois.justice.gc.ca/eng/acts/s-15.3/>). Attached in **Appendix A** is a list of Species at Risk in Nunavut.

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>).

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**.

The *Canada National Marine Conservation Areas Act* (<https://laws-lois.justice.gc.ca/eng/acts/C-7.3/FullText.html>).

The *Wildlife Area Regulations* under the *Canada Wildlife Act* (https://laws-lois.justice.gc.ca/eng/regulations/C.R.C.,_c._1609/FullText.html).

Table 4: Past, Present, and Reasonably Foreseeable Projects Considered

NIRB Project Number	Project Title	Project Type
<i>Proposed Developments – undergoing assessment</i>		
25YN005	Permafrost Organic Carbon Fluxes to the Canadian Arctic Ocean	Research
24YN051	Norwegian Tall Ship Through Northwest Passage and the Nunavut Region in 2025	Research
<i>Present Projects – approved or in operation</i>		
08MN053	Baffinland Iron Mines Corporation’s “Mary River”	Mine
	Inuit Qaujisarimmut Pilirijjutit on Arctic Shipping Risks in Inuit Nunangat	Research (seasonal)

NIRB Project Number	Project Title	Project Type
24YN040	Mary River Mine Fugitive Dust Research: Bridging Western Science, Industry Monitoring and Inuit Qaujimajatuqangit	Research
23YN068	Establishment of Tallurutiup Imanga National Marine Conservation Area	Research
Past Projects		
24YN036	The truncate softshell clam as an indicator of eco-geochemical conditions around the community of Qikiqtarjuaq, Nunavut	Research

VIEWS OF THE BOARD

In considering the above factors, the Board has identified the following and respectfully provides its views regarding whether or not the proposed project has the potential to result in significant impacts. The NIRB has also proposed terms and conditions that would mitigate the potential adverse impacts identified.

Ecosystem, wildlife habitat and Inuit harvesting activities:

Valued Component	Potential adverse effects on wildlife such as migratory and non-migratory birds, Arctic hare, Arctic fox, and other terrestrial wildlife.
Potential effects:	Potential adverse effects to migratory and non-migratory birds and other small aquatic wildlife due to research activities.
Nature of Impacts:	The potential for impacts is considered to be limited due to the limited and temporary nature of the activities, the location of the activities, and any resulting impacts would be expected to be minimal and reversible.
Mitigating Factors:	The Board is recommending terms and conditions that ensure that the potential adverse impacts can be mitigated by measures such as minimizing activities when wildlife and birds are particularly sensitive to disturbance especially during migration, nesting and moulting are adhered to, and ensuring that all project personnel are made aware of the measures to protect wildlife.
Proposed Terms and Conditions:	Water courses/Water bodies – 6 Waste Management – 7 Fuel and Chemical Storage – 8 Wildlife – General – 9 through 11 Migratory Birds and Raptors Disturbance – 12 Caribou and Muskoxen Disturbance 13 through 15

Valued Component	Fish and fish habitat and surface water quality, marine mammal
Potential effects:	Potential adverse impacts to fish, water, the aquatic environment, and marine mammals due to auger use and use of fuel.
Nature of Impacts:	The potential for impacts is considered to be limited and mostly reversible if regulations and best practices for use of fuel are followed.

Mitigating Factors:	The Board is recommending terms and conditions and it is expected that these terms and conditions would mitigate any potential adverse impacts to water quality, fish and fish habitat, and marine mammals in the direct project area and areas adjacent to the proposed project.
Proposed Terms and Conditions:	Water courses/Water bodies – 6 Waste Management – 7 Fuel and Chemical Storage – 8 Wildlife – General – 9 through 11 Marine-Based Activities – 20 and 21

Valued Component	Noise and Air Quality
Potential effects:	Potential disturbance to marine animals through the use of auger and research equipment and air quality from the operation of snowmobile and other equipment.
Nature of Impacts:	Potential for impacts is considered to be minimal due to the short duration of the project operations.
Mitigating Factors:	Proper use of engine exhaust systems to minimize negative effects on air quality will reduce the potential for impacts. The Proponent is encouraged to communicate project activities, including time and location of core sampling, to local residents.
Proposed Terms and Conditions:	Fuel and Chemical Storage – 8

Valued Component	Public and traditional land use activities
Potential effects:	No specific concerns or impacts to public and traditional land use activities in the area have been identified, however, the Board is recommending terms and conditions to ensure project activities are informed by available Inuit Qaujimaningit and that project activities do not interfere with Inuit wildlife harvesting or traditional land use activities.
Nature of Impacts:	Potential for impacts is considered to be minimal due to the location of the project.
Mitigating Factors:	Proponent proposes to carry out its work in a way that minimizes the negative effects to wildlife.
Proposed Terms and Conditions:	General – 5 Waste Management – 7 Wildlife – General – 10 and 11 Land Use and Restoration of Disturbed Areas – 16 through 19 Other – 24 through 26

Socio-economic effects on northerners:

Valued Component	Employment and Business Opportunities
Potential effects:	Potential positive economic effects from local employment and accommodations within the community

Nature of Impacts:	The Proponent has committed to working with the community as well as accommodating within the communities of Cambridge Bay, Gjoa Haven, Pond Inlet, and Qikiqtarjuaq
Mitigating Factors:	Recommended terms and conditions
Proposed Terms and Conditions:	Other – 27

Significant public concern:

Valued Component	Public concern
Potential effects:	No significant public concern was expressed during the public commenting period for this file, however, the Board recommends terms and conditions to ensure project activities do not interfere with Inuit wildlife harvesting or traditional land use activities, to the extent possible hire local people and access local services where possible, and to ensure planned activities in the area utilizes available Inuit Qaujimaningit.
Nature of Impacts:	The potential for impacts is considered to be minimal as long as the Proponent follows the recommended terms and conditions.
Mitigating Factors:	Recommended terms and conditions
Proposed Terms and Conditions:	Other – 24 and 25

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: 1-5.

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

RECOMMENDED PROJECT-SPECIFIC TERMS AND CONDITIONS

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

General

1. University of Victoria (the Proponent) shall maintain a copy of the Project Terms and Conditions at the site of operation at all times and make it accessible to enforcement officers upon request.

2. The Proponent shall operate in accordance with all commitments stated in correspondence provided to the Nunavut Planning Commission (NPC File No.: 150581), and the NIRB (Online Application Form, February 7, 2025). This information should be accessible to enforcement officers upon request.
3. The Proponent shall operate the site in accordance with all applicable Acts, Regulations and Guidelines.
4. The Proponent shall ensure that it meets the standards and/or limits as set out in the authorizing agencies' permits or licences as required for this project.
5. The Proponent shall ensure that all personnel, staff and contractors are adequately trained prior to commencement of all project activities, and shall be made aware of all operational plans, management plans, guidelines and Proponent commitments relating to the project.

Water courses/Water bodies (including fresh and marine waters)

6. The Proponent shall not deposit, nor permit the deposit of any fuel, chemicals, wastes (including wastewater) or sediment into any water body. The Proponent should have in place an Emergency Spill Response Plan that is approved by the appropriate authorizing agency(ies).

Waste Management

7. The Proponent shall manage all hazardous and non-hazardous waste including food, domestic wastes, debris and petroleum-based chemicals (e.g., greases, gasoline, glycol-based antifreeze) in such a manner to avoid release into the environment and access to wildlife at all times until disposed of appropriately or at an approved facility.

Fuel and Chemical Storage

8. The Proponent shall ensure that all spills of fuel or other deleterious materials of 100 litres or more must be reported immediately to the 24-hour Spill Line at (867) 920-8130.

Wildlife – General

9. The Proponent shall not substantially alter or damage or destroy any wildlife habitat in conducting this operation unless otherwise authorized by the appropriate authorizing agencies.
10. The Proponent shall not chase, weary, harass or molest wildlife. This includes persistently circling, chasing, hovering over, pursuing or in any other way harass wildlife, or disturbing large groups of animals.
11. The Proponent shall not hunt or fish, unless proper Nunavut authorizations have been acquired.

Migratory Birds and Raptors Disturbance

12. The Proponent shall carry out all phases of the project in a manner that protects migratory birds and avoids harming, killing or disturbing migratory birds or destroying, disturbing or taking their nests or eggs. In this regard, the Proponent shall take into account Environment and Climate Change Canada's *Avoidance Guidelines*. The Proponent's actions in applying the *Avoidance Guidelines* shall be in compliance with the *Migratory Birds Convention Act, 1994* and with the *Species at Risk Act*.

Caribou and Muskoxen Disturbance

13. The Proponent shall avoid interfering with any paths or crossings known to be frequented by caribou during periods of migration as identified by current land use plans in place and/or by Inuit Qaujimaningit.
14. The Proponent shall not locate any operation or undertake activities that could block or cause any diversion to migration of caribou or muskoxen.
15. The Proponent shall immediately cease activities likely to interfere with the migration or calving of caribou or muskoxen until such time as the caribou or muskox have passed.

Land Use and Restoration of Disturbed Areas

16. The Proponent shall use existing trails where possible during project activities on the land.
17. The Proponent shall ensure that the land use area is kept clean and tidy at all times.
18. The Proponent shall avoid disturbance on slopes prone to natural erosion, and alternative locations shall be utilized.
19. The Proponent shall remove all garbage, fuel and equipment at the end of each field season and/or upon completion of work and/or upon abandonment.

Marine-Based Activities

20. The Proponent shall suspend all project activities should any dead fish or wildlife (both marine and terrestrial), or any injured wildlife be observed during any works or activities in and around the marine waters. Activities may only be resumed on the recommendation of the authorizing agencies.
21. The Proponent shall report all incidents, injuries or sightings of marine mammals to the appropriate authorizing agencies.

Heritage Sites

22. The Proponent shall ensure that archaeological and paleontological sites are not purposely or inadvertently disturbed by clients or staff as a result of project activities.
23. The Proponent shall ensure that all clients and staff are aware of the Proponent's responsibilities and requirements regarding archaeological or palaeontological sites that are encountered during land-based activities. This should include briefings explaining the prohibitions regarding removal of artifacts, and defacing or writing on rocks and infrastructure.

Other

24. 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.
25. The Proponent should consult with local residents regarding their activities in the area and solicit available Inuit Qaujimaningit and information that can inform project activities.
26. The Proponent shall ensure that project activities do not interfere with Inuit wildlife harvesting or traditional land use activities.

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

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/or Parks Canada as appropriate, 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. The NIRB respectfully requests that responsible authorities submit a copy of each licence, permit or other authorization issued for the Project to the NIRB to assist in enabling possible project monitoring that may be required. 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, and reports 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: https://www.enr.gov.nt.ca/sites/enr/files/resources/safety_in_grizzly_and_black_bear_country_english.pdf.
5. Any problem wildlife or any interaction with carnivores should be reported immediately to the local Government of Nunavut, Department of Environment Conservation Office Conservation Offices and their phone numbers:
 - Cambridge Bay, (867) 983 – 4164
 - Gjoa Haven, (867) 360 – 7605
 - Pond Inlet, (867) 899 – 8819
 - Qikiqtarjuaq (867) 927 – 8966

Remotely Piloted Aircraft Systems, Unmanned Air Vehicles and Non-Recreational Drones

6. The Proponent should review Transport Canada's site on the rules for flying drones in Canada at <https://www.tc.gc.ca/en/services/aviation/drone-safety/new-rules-drones.html>.

CONCLUSION

The foregoing constitutes the Board's screening decision with respect to the University of Victoria's "Sikunnguaq – The Likeness or Image of Ice in Maps". The NIRB remains available for consultation with the Minister regarding this report as necessary.

Dated April 16, 2025 at Baker Lake, NU.



Kaviq Kaluraq, 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*, S.C. 2002, c. 29 (*SARA*), and the potential for project-specific adverse effects on listed wildlife species and its critical habitat, measures should be taken as appropriate to avoid or lessen those effects, and the effects need to be monitored. Project effects could include species disturbance, attraction to operations and destruction of habitat. This section applies to all species listed on Schedule 1 of *SARA*, as listed in the table below, or have been assessed by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC), which may be encountered in the project area. This list may not include all species identified as at risk by the Territorial Government. The following points provide clarification on the applicability of the species outlined in the table.

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

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

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

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

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

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

Updated: September 2024

Terrestrial Species at Risk ¹	COSEWIC Designation	Schedule of SARA	Government Organization with Primary Management Responsibility ²
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	Threatened	Schedule 1	ECCC
Peregrine Falcon	Special Concern	Schedule 1	ECCC
Red Knot Islandica Subspecies	Special Concern	Schedule 1	ECCC
Red-necked Phalarope	Special Concern	Schedule 1	ECCC
Ross's Gull	Threatened	Schedule 1	ECCC
Rusty Blackbird	Special Concern	Schedule 1	ECCC
Short-eared Owl	Special Concern	Schedule 1	ECCC
Porsild's Bryum	Threatened	Schedule 1	Government of Nunavut (GN)
Transverse Lady Beetle	Special Concern	No Schedule	GN
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	ECCC
Peary Caribou	Endangered	Schedule 1	GN
Polar Bear	Special Concern	Schedule 1	ECCC
Wolverine	Special Concern	Schedule 1	GN
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
Beluga Whale (Western Hudson Bay Population)	Special Concern	No Schedule	DFO
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

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

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

**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 Overview Assessment and/or Inventory and Documentation and/or Mitigation
c)	Construction of linear disturbances, Extractive disturbances, Impounding disturbances and other land disturbance activities	Archaeological/Palaeontological Overview Assessment and/or Inventory and Documentation and/or Mitigation

Note that the above-mentioned functions require either a Nunavut Archaeologist Permit or a Nunavut Palaeontologist Permit. CH is authorized by way of the *Nunavut and Archaeological and Palaeontological Site Regulations*³ to issue such permits.

³ P.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*⁴, 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*⁵, it is illegal to alter or disturb any palaeontological or archaeological site in Nunavut unless permission is first granted through the permitting process.

Definitions

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

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

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

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

“fossil” includes:

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

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

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

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

Introduction

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

⁴ s. 51(1)

⁵ P.C. 2001-1111 14 June, 2001

CH is the Nunavut Government agency which oversees the protection and management of heritage resources in Nunavut, in partnership with land claim authorities, regulatory agencies, and the federal government. Its role in mitigating impacts of developments on heritage resources is as follows: to identify the need for an impact assessment and make recommendations to the appropriate regulatory agency; set the terms of reference for the study depending upon the scope of the development; suggest the names of qualified individuals prepared to undertake the study to the developer; issue an archaeologist or palaeontologist permit authorizing field work; assess the completeness of the study and its recommendations; and ensure that the developer complies with the recommendations.

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