



## SCREENING DECISION REPORT NIRB FILE No.: 22TN017

NPC File No.: 149259

**August 2, 2022**

Following the Nunavut Impact Review Board's (NIRB or Board) assessment of all materials provided, the NIRB is recommending that a review of Scenic Cruises' "Unlocking the Northwest Passage" 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, 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 Ministers accepts this Screening Decision Report.

### OUTLINE OF SCREENING DECISION REPORT

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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 March 30, 2022, the NIRB received a referral to screen Scenic Cruises' "Unlocking the Northwest Passage" project proposal from the Nunavut Planning Commission (Commission), with an accompanying positive conformity determination with the North Baffin Regional Land Use Plan.

Pursuant to Article 12, Sections 12.4.1 and 12.4.4 of the *Nunavut Agreement* and s. 87 of the *NuPPAA*, the NIRB commenced screening this project proposal and assigned it file number **22TN017**.

#### PROJECT OVERVIEW & THE NIRB ASSESSMENT PROCESS

### 1. Screening Process Timelines

The following key stages were completed for the screening process:

Date	Stage
March 30, 2022	Receipt of project proposal and positive conformity determination (North Baffin Regional Land Use Plan) from the Commission.
March 30, 2022, April 14, 2022 & May 9, 2022	Requests to Proponent for additional information in order to carry out screening pursuant to s. s. 144(1) of the <i>NuPPAA</i>
June 14, 2022	Proponent responded to information requests and provided additional information
June 14, 2022	Scoping pursuant to s. 86(1) of the <i>NuPPAA</i>
June 23, 2022	Public engagement and comment request
July 14, 2022	Receipt of public comments
August 2, 2022	Issuance of Screening Decision Report

## 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/125683](http://www.nirb.ca/project/125683).

<b>Project:</b>	Unlocking the Northwest Passage
<b>Region:</b>	Qikiqtani (North Baffin) and Kitikmeot Regions
<b>Location:</b>	Transiting through the Northwest Passage from Greenland
<b>Summary of Project Description:</b>	The Proponent intends to conduct vessel-based tourism activities that would provide passengers opportunities to engage in flightseeing, zodiac cruising, underwater excursions, kayak excursions, wildlife watching, shore landings for guided interpretive walks, and organized community visits.
<b>Project Proposed Timeline:</b>	August 2022

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

- Use of cruise vessel, the *Scenic Eclipse*, for transportation and accommodation of up to 200 passengers;
- Use of helicopters for aerial sightseeing;
- Use of a fleet of twelve (12) zodiacs to facilitate shore landings and sightseeing excursions;
  - All visits to shore to be brief day trips, on foot with no camping, structures built, or motorized transport;
- Use of 10 kayaks for guests and instructors;
- Use of a 6-person submarine for underwater excursions. Planned locations for underwater excursions are:
  - Croker Bay, Devon Island;
  - Radstock Bay, Devon Island; and
  - Johansen Bay, Edinburgh Island.
- Alternate locations for submarine excursions include:
  - Cuming Inlet, Devon Island;
  - Maxwell Bay, Devon Island; and
  - Jenny Lind Island.
- Tourism expedition visits include:
  - Dundas Harbour/Morin Point, Croker Bay, Beechy Island, Prince Leopold Island, Fury Beach, Conningham Bay, and Edinburgh Island to visit historic sites and conduct wildlife viewing;
  - Pre-organized visits to the communities of Pond Inlet, Gjoa Haven and Cambridge Bay; and
  - Scenic cruising, shore landings and shore-based interpretive activities along the route;
- Storage and use of diesel for vessel operations and for zodiac operations;
- Use of onboard reverse osmosis to supply domestic water needs;

- Generation of combustible wastes, and non-combustible wastes with disposal/recycling at a certified reception port; and
- Generation of sewage and grey water with treatment on board with disposal as per Canadian legislation.

### 3. Inclusion or Exclusion to Scoping List

The NIRB has identified no additional works or activities in relation to the project proposal. As a result, the NIRB proceeded with screening the project based on the scope as described above.

### 4. Public Comments and Concerns

Notice regarding the NIRB's screening of this project proposal was distributed on June 23, 2022, to community organizations in Baker Lake, 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 July 14, 2022, 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 July 14, 2022, the NIRB received comments from the following interested parties:

- **Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC)**
- **Fisheries and Oceans Canada (DFO)**
- **Transport Canada (TC)**
- **Member of the Public**
  - Rhoda Katsak

#### *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:

#### **CIRNAC**

- Recommends the Proponent minimize interaction within the areas of active mining development (Baffinland Iron mine ore transportation by ore carriers in Eclipse Sound) to avoid cumulative effects on marine mammals.
- Recommends that the Proponent prioritize the employment and training of local Inuit as well as procurement with Inuit-owned businesses when implementing project activities;
- Recommends that the Proponent consult with the Hamlets and Hunters and Trappers Organizations in each community that could be affected by project activities.

## DFO

- Recommends that the watercraft should survey the area for marine mammals to avoid disturbing them. If marine mammals are encountered, and remain in the area, effort should be made to avoid disturbing them by rerouting, slowly navigating around them at a reduced speed and maintaining their distance.
- The watercraft should not accelerate within 800 m of whales and 250 m of other marine mammals. The marine mammals should not be approached, in general, within 100 m for common species and 400 m for Species at Risk.
- Aircraft should maintain a minimum altitude of 500 m over marine mammals when surveys are not taking place.

## TC

- Notes that there is no mention of briefing passenger on marine emergency duties and hazards prior to embarking the zodiacs or any other time, and also noted;
- There is no mention of Polar Waters Operational Manual and not submitted for review.
- Transport Canada participates in a working group that works with cruise ship operators and may request this and other information.
- Navigating waterways in the Canadian Arctic are subject to comprehensive Land Claims Agreements and the operator must seek the proper permissions prior from all relevant authorities.
- Recommends the operator contact Territorial Land Claim Administrators to ensure the proper procedures are followed prior to arrival. Most Canadian Arctic communities' welcome visitors, provided they are contacted well in advance and have a chance to prepare for visitors.

## Member of the Public

- Concerns regarding the vessel sailing and disembarking at important hunting areas.
- Concerns regarding tourist/tourist operators not being able to be fully monitored in the activities they do and if they are in compliance of terms and conditions.
- Concerns regarding cumulative affects on wildlife and the environment from the proposed project and projects around the area.

### *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.

## 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
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"> <li>▪ The geographic area includes marine and coastal areas along the Northwest Passage within the Qikiqtani (North Baffin) and Kitikmeot Regions with visits to wildlife and historic areas as well as visits to the communities of Pond Inlet, Gjoa Haven and Cambridge Bay.</li> <li>▪ The proposed activities may take place within habitat and seasonal ranges of marine wildlife, terrestrial wildlife, and migratory and non-migratory birds. Marine animals that may be encountered during the project activities could include fish, seals, walrus, beluga whale, Bowhead whale, Polar Bear, killer whale, and narwhal. Land based animals that may be encountered during project activities include Peary caribou, barren-ground caribou, muskox, wolves, wolverine, grizzly bears, migratory birds, and Species at Risk (Ivory Gull, Ross's Gull, Red Knot, Horned Grebe).</li> <li>▪ The proposed project may potentially affect animal calving and spawning areas as well as migratory patterns.</li> </ul>
The ecosystemic sensitivity of that area.	<ul style="list-style-type: none"> <li>▪ The proposed project would occur in areas identified as having ecosystemic sensitivity including Prince Leopold Island Bird Sanctuary, Tallurutiup Imanga (Lancaster Sound) marine conservation area, and Eclipse Sound.</li> </ul>
The historical, cultural and archaeological significance of that area.	<ul style="list-style-type: none"> <li>▪ The Proponent has indicated that there are several known areas of historical, cultural and archaeological significance in the vicinity of the proposed project area. They will be visiting several historic sites including Dundas Harbour, Beechy Island, Radstock Bay, and King William Island.</li> </ul>
The size of the human and the animal populations likely to be affected by the impacts.	<ul style="list-style-type: none"> <li>▪ The proposed project takes place within the habitat of several species identified above and as such, may potentially affect wildlife, their habitat and their migratory patterns.</li> </ul>



Factor	Comment
	<ul style="list-style-type: none"> <li>As components of the proposed project activities are expected to occur in and near the communities of Pond Inlet, Gjoa Haven and Cambridge Bay, there is the potential for human populations and traditional land-use activities to be affected.</li> </ul>
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"> <li>A zone of influence of up to 100 km from the most potentially disruptive project activities was selected for the NIRB's assessment.</li> <li>Based on past evidence from projects with similar scope of activities, the potential adverse effects are well known, with potential for localized effects to the biophysical environment that are mitigable with due care.</li> <li>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.</li> </ul>
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"> <li>The NIRB has not identified any past, present, and reasonably foreseeable projects at this time; however, the mitigation measures recommended by the NIRB have been designed to reduce cumulative effects should projects occur in the area in the future.</li> </ul>
Any other factor that the Board considers relevant to the assessment of the significance of impacts.	<ul style="list-style-type: none"> <li>No other relevant factors were identified.</li> </ul>

**Other past, present and reasonably foreseeable projects considered in this assessment:**

NIRB Number	Project Title	Project Type
<b><i>Proposed Developments – undergoing assessment</i></b>		
22TN039	Greg Mortimer Arctic Cruises	Tourism
22TN037	SH Vega	Tourism
<b><i>Present Projects – approved or in operation</i></b>		
08MN053	Mary River Mining Project	Mining with Vessels going through Eclipse Sound
05AN089	Ultramarine	Access
08AN072	2 ships, Hanseatic Nature and Hanseatic Inspiration	Access
13AN028	L'Austral	Access



NIRB Number	Project	Project Title	Project Type
13AN020		3 ships, National Geographic Explorer, National Geographic Endurance, National Geographic Resolution	Access
14AN024/16TN052		Silver Wind	Access/Tourism
18TN035		2 ships, Roald Amundsen and Fram	Tourism

#### 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.

The NIRB has listed specific Acts and Regulations below that may be applicable to the project proposal but this list should not be considered as a complete list and the Proponent is responsible to ensure that it follows all Acts and Regulations that may be applicable to the project proposal.

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

<b>Valued Component</b>	Migratory and non-migratory birds, terrestrial and Species at Risk
<b>Potential effects:</b>	Potential adverse impacts to terrestrial wildlife and migratory and non-migratory birds resulting from increased noise disturbance associated with wildlife observations, and land-based tourism activities.
<b>Nature of Impacts:</b>	The potential for impacts is considered to be limited due to infrequent and temporary activities and any resulting impacts would be expected to be reversible.
<b>Mitigating Factors:</b>	Recommended Terms and conditions
<b>Proposed Terms and Conditions:</b>	Wildlife General – 10 through 12 Migratory Birds and Raptors Disturbance – 13 and 14 Vessel Craft-based Tourism - 26 Marine-based activities – 17 through 19 Vessel Craft-based Tourism - 26
<b>Related Acts and/or Regulations:</b>	<ol style="list-style-type: none"> <li>1. The <i>Migratory Birds Convention Act</i> and <i>Migratory Birds Regulations</i> (<a href="http://laws-lois.justice.gc.ca/eng/acts/M-7.01/">http://laws-lois.justice.gc.ca/eng/acts/M-7.01/</a>).</li> <li>2. The <i>Species at Risk Act</i> (<a href="http://laws-lois.justice.gc.ca/eng/acts/S-15.3/index.html">http://laws-lois.justice.gc.ca/eng/acts/S-15.3/index.html</a>). Attached in <b>Appendix A</b> is a list of Species at Risk in Nunavut.</li> <li>3. The <i>Wildlife Act (Nunavut)</i> and its corresponding regulations (<a href="http://www.canlii.org/en/nu/laws/stat/snu-2003-c-26/latest/snu-2003-c-26.html">http://www.canlii.org/en/nu/laws/stat/snu-2003-c-26/latest/snu-2003-c-26.html</a>).</li> </ol>

	4. The <i>Wildlife Area Regulations</i> under the <i>Canada Wildlife Act</i> ( <a href="https://laws-lois.justice.gc.ca/eng/regulations/C.R.C.,_c._1609/FullText.html">https://laws-lois.justice.gc.ca/eng/regulations/C.R.C.,_c._1609/FullText.html</a> )
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<b>Valued Component</b>	Marine mammals and marine habitat
<b>Potential effects:</b>	Potential adverse impacts to marine mammals, fish and benthic populations, and key critical habitat (calving, post-calving areas, and migratory pathways) resulting from increased noise and/or physical disturbance associated with vessel operation and small watercraft operations. Cumulative effects on marine wildlife and marine habitat could occur if multiple vessels are encountered in the same area.
<b>Nature of Impacts:</b>	The potential for impacts is considered to be limited due to infrequent and temporary activities and any resulting impacts would be expected to be reversible.
<b>Mitigating Factors:</b>	Measures should be taken to avoid encounters with other vessels, where possible, to minimize adverse impacts to the marine wildlife, particularly in critical habitat, calving areas, and narrow migration corridors.
<b>Proposed Terms and Conditions:</b>	Water Courses/Water bodies- 6 Waste Management – 7 Fuel and Chemical Storage – 8 and 9 Wildlife – General – 10 through 12 Marine-based activities – 16, 17, 20 through 25 Vessel Craft-based Tourism – 26 and 27
<b>Related Acts and/or Regulations:</b>	1. The <i>Canada National Marine Conservation Areas Act</i> ( <a href="https://laws-lois.justice.gc.ca/eng/acts/C-7.3/FullText.html">https://laws-lois.justice.gc.ca/eng/acts/C-7.3/FullText.html</a> ). 2. The <i>Wildlife Area Regulations</i> under the <i>Canada Wildlife Act</i> ( <a href="https://laws-lois.justice.gc.ca/eng/regulations/C.R.C.,_c._1609/FullText.html">https://laws-lois.justice.gc.ca/eng/regulations/C.R.C.,_c._1609/FullText.html</a> ) 3. The <i>Canadian Navigable Waters Act</i> ( <a href="https://laws.justice.gc.ca/eng/acts/N-22/">https://laws.justice.gc.ca/eng/acts/N-22/</a> ). 4. The <i>Guidance Document for Passenger Vessels Operating in the Canadian Arctic</i> ( <a href="https://www.tc.gc.ca/eng/marinesafety/tp13670-menu-2315.htm">https://www.tc.gc.ca/eng/marinesafety/tp13670-menu-2315.htm</a> ).

<b>Valued Component</b>	Terrestrial environment and vegetation
<b>Potential effects:</b>	Planned shore visits to frequently visited historical and cultural sites have the potential for cumulative impacts to these areas, such as the creation of new trails or walking paths.
<b>Nature of Impacts:</b>	The potential for impacts is considered to be limited due to infrequent and temporary activities and any resulting impacts would be expected to be reversible.
<b>Mitigating Factors:</b>	Recommended Terms and Conditions

<b>Proposed Terms and Conditions:</b>	Land Use and Restoration of Disturbed Areas- 15 Vessel Craft-based Tourism - 26
<b>Related Acts and/or Regulations:</b>	1. The <i>Canada National Parks Act</i> ( <a href="http://laws-lois.justice.gc.ca/eng/acts/n-14.01/">http://laws-lois.justice.gc.ca/eng/acts/n-14.01/</a> ).

<b>Valued Component</b>	Traditional land use activities
<b>Potential effects:</b>	Potential adverse impacts to the public and traditional land-use activities resulting from proposed vessel movement and tourism activities, as well as from planned shore-based activities.
<b>Nature of Impacts:</b>	Due to the proposed project's proximity to the communities of Pond Inlet, Gjoa Haven and Cambridge Bay, there is the potential for adverse impacts to result from proposed project components overlapping with traditional land use areas.
<b>Mitigating Factors:</b>	Recommended Terms and Conditions
<b>Proposed Terms and Conditions:</b>	Vessel Craft-based Tourism - 28 Other – 31 and 32
<b>Related Acts and/or Regulations:</b>	1. The <i>Nunavut Act</i> ( <a href="http://laws-lois.justice.gc.ca/eng/acts/N-28.6/">http://laws-lois.justice.gc.ca/eng/acts/N-28.6/</a> ).

#### **Socio-economic effects on northerners:**

<b>Valued Component</b>	Historical and archeological sites
<b>Potential effects:</b>	The Proponent is proposing to visit known protected historical and archaeological sites, which could have negative impacts on the historical and environmental integrity of these areas from increased visitation.
<b>Nature of Impacts:</b>	The potential for impacts is considered to be limited due to infrequent and temporary activities and any resulting impacts would be expected to be reversible.
<b>Mitigating Factors:</b>	Recommended Terms and Conditions
<b>Proposed Terms and Conditions:</b>	Heritage Sites – 29 and 30
<b>Related Acts and/or Regulations:</b>	1. The <i>Nunavut Act</i> ( <a href="http://laws-lois.justice.gc.ca/eng/acts/N-28.6/">http://laws-lois.justice.gc.ca/eng/acts/N-28.6/</a> ). The Proponent must comply with the proposed terms and conditions listed in the attached <b>Appendix B</b> .

<b>Valued Component</b>	Employment, hiring and local businesses
<b>Potential effects:</b>	Potential positive impacts to the local community resulting from proposed shore-based activities including interactions with community members as local hiring for sightseeing and the potential for buying of local crafts.
<b>Nature of Impacts:</b>	The potential for socio-economic impacts could be positive as tourists will encourage local business.
<b>Mitigating Factors:</b>	Recommended Terms and Conditions

<b>Proposed Terms and Conditions:</b>	Vessel Craft-based Tourism - 28 Other - 33
<b>Related Acts and/or Regulations:</b>	N/A

**Significant public concern:**

<b>Valued Component</b>	Significant public concern
<b>Potential effects:</b>	Inuit Harvesting and Marine Mammals
<b>Nature of Impacts:</b>	The increase of cruise ships in Baffin Bay could reduce mammals and disrupt Inuit harvesting.
<b>Mitigating Factors:</b>	Recommended Terms and Conditions
<b>Proposed Terms and Conditions:</b>	Other – 31 and 32
<b>Related Acts and/or Regulations:</b>	1. The <i>Nunavut Act</i> ( <a href="http://laws-lois.justice.gc.ca/eng/acts/N-28.6/">http://laws-lois.justice.gc.ca/eng/acts/N-28.6/</a> ).

**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 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. Scenic Cruises (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.: 149259), and the NIRB (Online Application Form, June 14, 2022). 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 have a Spill Contingency Plan in place at all fuel storage or transfer locations and shall ensure that appropriate spill response equipment and clean-up materials (e.g., shovels, pumps, barrels, drip pans, and absorbents) are readily available.
9. 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**

10. 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.
11. 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.
12. The Proponent shall not hunt or fish, unless proper Nunavut authorizations have been acquired.

#### **Migratory Birds and Raptors Disturbance**

13. The Proponent shall avoid the seaward site of seabird colonies and areas used by flocks of migrating waterfowl, a minimum distance away on the recommendation of the appropriate authorizing agencies.
14. The Proponent shall not pursue seabirds or waterbirds swimming on the water surface and shall avoid concentrations of these birds if encountered on the water.

#### **Land Use and Restoration of Disturbed Areas**

15. The Proponent shall use existing trails where possible during project activities on the land.

#### **Marine-Based Activities**

16. The Proponent shall, where practicable, coordinate with other vessels to minimize simultaneous vessel traffic in critical wildlife habitat areas allowing the wildlife to continue to use the habitat undisturbed (e.g. Navy Board Inlet, Lancaster Sound, Milne Inlet, Bellot Strait).

17. The Proponent shall ensure that noise be kept to a minimum and shall refrain from making sharp or loud noises, blowing horns or whistles and shall maintain constant engine noise levels.
18. The Proponent shall not visit cliffs used by nesting and breeding birds during the late afternoon or early evening hours during the months of August and September.
19. The Proponent shall anchor large vessels, such as cruise ships at least 500 metres away from seabird and seaduck breeding colonies except Ivory gull breeding sites which requires a setback distance of 2,000 metres. Further, the Proponent shall ensure small launch vessels (e.g., zodiacs, kayaks) maintain a distance of 100 metres from the seabird colonies.
20. The Proponent shall not attempt to intersect or interfere with the movements of marine mammals. This includes ensuring that there are no wake zones within 250 metres and a minimum of 100 metre no go zone around marine mammals. Strategic positioning of vessels ahead of the path being traveled by mobile mammals and waiting for the mammals to pass is also prohibited.
21. When marine mammals appear to be trapped or disturbed by vessel movements, the Proponent shall implement appropriate measures to mitigate disturbance, including stoppage of movement until wildlife have moved away from the immediate area.
22. The Proponent shall maintain a distance of 100 metres if a Polar Bear is encountered on land or ice while conducting activities from a zodiac or other small craft; all interaction with Polar Bears should be avoided if possible.
23. The Proponent shall maintain a distance of 500 metres of a walrus haul out while conducting activities from a zodiac or other small craft.
24. 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.
25. The Proponent shall report all incidents, injuries or sightings of marine mammals to the appropriate authorizing agencies.

### **Vessel Craft-based Tourism**

26. The Proponent shall ensure that all passengers (clients and staff) are aware of the Proponent's responsibilities and requirements regarding wildlife and wildlife habitat protection. This should include pre-landing briefings on wildlife sensitivities and potential hazards, proper wildlife viewing techniques and safety practices. The Proponent shall monitor to ensure all clients and staff are compliant.
27. While on the cruise ship, vessel or small craft, the Proponent shall limit viewing time of each concentration of marine mammals and avoid loud noises and rapid movement in order to minimize disturbance.
28. The Proponent is strongly advised to provide sufficient advance notice to communities where a landing is planned as part of project activities.

### **Heritage Sites**

29. 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.
30. 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**

31. 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.
32. The Proponent shall ensure that project activities do not interfere with Inuit wildlife harvesting or traditional land use activities.
33. 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.

#### **Bear and Carnivore Safety**

2. The Proponent should review the Government of Nunavut's booklet on Bear Safety, which can be downloaded from this link: [http://gov.nu.ca/sites/default/files/bear\\_safety\\_-\\_reducing\\_bear-people\\_conflicts\\_in\\_nunavut.pdf](http://gov.nu.ca/sites/default/files/bear_safety_-_reducing_bear-people_conflicts_in_nunavut.pdf). Further information on bear/carnivore detection and deterrent techniques can be found in the "*Safety in Grizzly and Black Bear Country*" pamphlet, which can be downloaded from this link: [https://www.enr.gov.nt.ca/sites/enr/files/resources/safety\\_in\\_grizzly\\_and\\_black\\_bear\\_country\\_english.pdf](https://www.enr.gov.nt.ca/sites/enr/files/resources/safety_in_grizzly_and_black_bear_country_english.pdf).
3. There are Polar Bear and grizzly bear safety resources available from the Bear Smart Society with videos on Polar Bear safety available in English, French and Inuktitut at <http://www.bearsmart.com/play/safety-in-polar-bear-country/>. Information can also be obtained from Parks Canada's website on bear safety at the following link: <http://www.pc.gc.ca/eng/pn-np/nu/quttinirpaaq/visit/visit6/d.aspx> or in reviewing the "*Safety in Polar Bear Country*" pamphlet, which can be downloaded from the following link: [http://www.pc.gc.ca/eng/pn-np/nu/quttinirpaaq/visit/visit6/~/\\_media/pn-np/nu/auyuittuq/pdf/shared/PolarBearSafety\\_English.ashx](http://www.pc.gc.ca/eng/pn-np/nu/quttinirpaaq/visit/visit6/~/_media/pn-np/nu/auyuittuq/pdf/shared/PolarBearSafety_English.ashx).
4. Any problem wildlife or any interaction with carnivores should be reported immediately to the local Government of Nunavut, Department of Environment Conservation Office (Conservation Officer of Pond Inlet, phone: (867) 899-8819; Conservation Officer of Gjoa Haven, phone: (867) 360-7601; Conservation Officer of Cambridge Bay, phone: (867) 983-4164).



## Species at Risk

5. The Proponent review Environment and Climate Change Canada’s “Environment Assessment Best Practice Guide for Wildlife at Risk in Canada”, available at the following link: [http://www.sararegistry.gc.ca/virtual\\_sara/files/policies/EA%20Best%20Practices%202004.pdf](http://www.sararegistry.gc.ca/virtual_sara/files/policies/EA%20Best%20Practices%202004.pdf). The guide provides information to the Proponent on what is required when Wildlife at Risk, including *Species at Risk*, are encountered or affected by the project.

## Migratory Birds

6. The Proponent review Canadian Wildlife Services’ “Key migratory bird terrestrial habitat sites in the Northwest Territories and Nunavut”, available at the following link: <http://publications.gc.ca/site/eng/317630/publication.html> and “Key marine habitat sites for migratory birds in Nunavut and the Northwest Territories”, available at the following link: <http://publications.gc.ca/site/eng/392824/publication.html>. The guide provides information to the Proponent on key terrestrial and marine habitat areas that are essential to the welfare of various migratory bird species in Canada.

## CONCLUSION

The foregoing constitutes the Board’s screening decision with respect to the Scenic Cruises’ “Unlocking the Northwest Passage”. The NIRB remains available for consultation with the Minister regarding this report as necessary.

Dated August 2, 2022 at Baker Lake, NU.



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

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

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

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

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

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

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

Updated: September 2019

Terrestrial Species at Risk <sup>1</sup>	COSEWIC Designation	Schedule of SARA	Government Organization with Primary Management Responsibility <sup>2</sup>
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	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
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	ECCC
Peary Caribou	Endangered	Schedule 1	GN
Polar Bear	Special Concern	Schedule 1	ECCC
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

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

<sup>2</sup> 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.

<b>Terrestrial Species at Risk<sup>1</sup></b>	<b>COSEWIC Designation</b>	<b>Schedule of SARA</b>	<b>Government Organization with Primary Management Responsibility<sup>2</sup></b>
Beluga Whale (Eastern High Arctic-Baffin Bay Population)	Special Concern	No Schedule	DFO
Beluga Whale (Western Hudson Bay Population)	Special Concern	No Schedule	DFO
<b>Fish</b>			
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:

	<b>Types of Development</b> (See Guidelines below)	<b>Function</b> (See Guidelines below)
a)	Large scale prospecting	Archaeological/Palaeontological Overview Assessment
b)	Diamond drilling for exploration or geotechnical purpose or planning of linear disturbances	Archaeological/Palaeontological 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*<sup>3</sup> to issue such permits.

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

## Definitions

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

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

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

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

*“fossil” includes:*

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

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

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

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

## Introduction

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

CH is the Nunavut Government agency which oversees the protection and management of heritage resources in Nunavut, in partnership with land claim authorities, regulatory agencies, and

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<sup>4</sup> s. 51(1)

<sup>5</sup> P.C. 2001-1111 14 June, 2001



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.