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## COMMENT FORM FOR NIRB SCREENINGS

The Nunavut Impact Review Board (NIRB) has a mandate to protect the integrity of the ecosystem for the existing and future residents of Nunavut. To assess the environmental and socio-economic impacts of the project proposal, NIRB would like to hear your concerns, comments and suggestions about the following project proposal application:

|                                |  |                |                |
|--------------------------------|--|----------------|----------------|
| <b>Project Proposal Title:</b> | <b>Passive Acoustic Monitoring and UAV Assessment of the Impacts of Shipping and Development on High Arctic Beluga Whales and Narwhals</b> |                |                |
| <b>Proponent:</b>              | <b>Fisheries and Oceans Canada</b>   |                |                |
| <b>Location:</b>               | <b>Qikiqtani (North Baffin) Region</b>   |                |                |
| <b>Comments Due By:</b>        | <b>May 18, 2022</b>  | <b>NIRB #:</b> | <b>22YN021</b> |

**Indicate your concerns about the project proposal below:**

|  |  |
|--|--|
| <input type="checkbox"/> no concerns                                 | <input type="checkbox"/> traditional uses of land                          |
| <input type="checkbox"/> water quality                               | <input checked="" type="checkbox"/> Inuit harvesting activities            |
| <input type="checkbox"/> terrain                                     | <input checked="" type="checkbox"/> community involvement and consultation |
| <input type="checkbox"/> air quality                                 | <input type="checkbox"/> local development in the area                     |
| <input type="checkbox"/> wildlife and their habitat                  | <input type="checkbox"/> tourism in the area                               |
| <input checked="" type="checkbox"/> marine mammals and their habitat | <input type="checkbox"/> human health issues                               |
| <input type="checkbox"/> birds and their habitat                     | <input type="checkbox"/> other: _____                                      |
| <input type="checkbox"/> fish and their habitat                      | _____  |
| <input type="checkbox"/> heritage resources in area                  | _____  |

**Please describe the concerns indicated above:**

The Qikiqtani Inuit Association (QIA) represents and advocates for Inuit in the Qikiqtani region of Nunavut. QIA supports wildlife research projects that improve knowledge on species of socio-economic and cultural importance to Inuit. Such research should however be conducted in a manner that minimizes negative impacts on wildlife, the environment, and Inuit rights while also maximizing community involvement, training, employment, and consultation. QIA's questions and recommendations address these concerns and offer suggestions to ensure the proposed project minimizes negative impacts while maximizing benefits.

**Do you have any suggestions or recommendations for this application?**

The project proposes to collect biopsy (skin) samples from narwhal and beluga whales for genetic studies, and to deploy satellite tags to study movements, distribution and migratory patterns. The project proposes to satellite tag up to 10 whales, and up to 30 biopsies will be collected. Tags and biopsy darts will be remotely deployed using a crossbow or a CO2-powered rifle, with no capture and handling of animals proposed. The biopsy procedure proposed is well-established and has been used extensively in Canadian cetacean research. Most narwhal and beluga satellite-tagging in Canada to date, however, has involved the capture (using nets) and physical restraint of animals during the tagging process. Remote tagging is less invasive, and Inuit are largely supportive of attempts to reduce the invasive nature of wildlife research. Has the crossbow deployment method for satellite tagging been used on either of these species





hazardous materials, maximizing Inuit benefits, and consultation; and the GN's recommendations for the protection of archaeological sites.

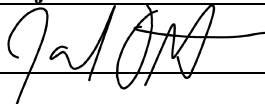
**Do you support the project proposal? Yes ☒ No ☐ Any additional comments?**

QIA supports the project proposal provided it is conducted in a manner that minimizes impacts to marine wildlife and Inuit land use.

Any landings on or use of Inuit Owned Lands will require the appropriate land use authorization from QIA.

Technical Comments provided by Dr. Jeff W. Higdon, and D. Bruce Stewart

**Name of person commenting:** Jared Ottenhof **of** Iqaluit  
**Position:** Director, Qikiqtani **Organization:** Qikiqtani Inuit Association  
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**Signature:**  **Date:** May 20, 2022

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

- 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.

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):

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*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.*

*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>6</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>6</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.*

<sup>5</sup> s. 51(1)


<sup>6</sup> P.C. 2001-1111 14 June, 2001





## Types of Development

- *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.*

**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.

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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

