



**SCREENING DECISION REPORT
NIRB FILE NO.: 09UN052**

May 12, 2011

Honourable Peter Kent
Minister of Environment
Government of Canada
10 Wellington St., 28th Floor
Gatineau, QC K1A 0H3

Via email: kentp@parl.gc.ca

Re: Screening Decision for Public Works and Government Services Canada's Disposal At Sea Permit request with Environment Canada for the "Disposal at Sea of Dredged Sediments, Pangnirtung Fjord" Project Proposal, Additional Application Terms and Conditions, NIRB File No. 09UN052

Dear Honourable Peter Kent:

The primary objectives of the Nunavut Impact Review Board (NIRB) are set out in section 12.2.5 of the Nunavut Land Claims Agreement (NLCA) as follows:

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.

Section 12.4.3 of the NLCA states that:

Any application for a component or activity of a project proposal that has been permitted to proceed in accordance with these provisions shall be exempt from the requirement for screening by NIRB unless:

- (a) such component or activity was not part of the original project proposal; or*
- (b) its inclusion would significantly modify the project.*

NIRB ASSESSMENT AND DECISION

The NIRB has completed a review of Public Works and Government Services Canada's request to Environment Canada (EC) for an amendment to the Disposal at Sea Permit for their "Disposal at Sea of Dredged Sediments, Pangnirtung Fjord" project.

After a thorough assessment of the project proposal, the amendment application information and the comments received (please see *Procedural History* and *Project Activities* in **Appendix A**), in accordance with Section 12.4.3 of the NLCA, the Board has determined that this request will result in a change to the original scope of the project. Therefore, the NIRB is re-issuing the recommended project-specific terms and conditions contained in the March 22, 2011 Screening Decision, NIRB file No.: 09UN052 in addition to new terms and conditions which are designed to mitigate any potential impacts to the environment as per Section 12.4.4 (a) of the NLCA.

PREVIOUSLY APPROVED PROJECT-SPECIFIC TERMS AND CONDITIONS

The following terms and conditions were previously approved by the NIRB for file No. **09UN052** in a Screening Decision Report dated March 22, 2011 and is available from NIRB's ftp site using the following link
<http://ftp.nirb.ca/SCREENINGS/COMPLETED%20SCREENINGS/>:

General

1. Fisheries and Oceans Canada and/or Public Works and Government Services Canada (the Proponent) shall maintain a copy of the Project Terms and Conditions at the site of operation at all times.
2. The Proponent shall forward copies of all permits obtained and required for this project to the Nunavut Impact Review Board (NIRB) prior to the commencement of the Project.
3. The Proponent shall operate in accordance with all commitments stated in correspondence provided to NIRB, including:
 - a. NIRB Part 1 Summary Application Form (submitted June 22, 2009)
 - b. NIRB Part 2 Project Specific Information Requirements Form (submitted June 22, 2009)
 - c. NIRB Screening-level Environmental Assessment Disposal at Sea of Dredged Marine Sediments Pangnirtung Fjord, December 20, 2010.
 - d. Environment Canada Permit Application (Disposal at Sea), December 20, 2010.
4. The Proponent shall operate the site in accordance with all applicable Acts, Regulations and Guidelines.

Water

5. The Proponent shall not extract water from any fish-bearing waterbody unless the water intake hose is equipped with a screen of appropriate mesh size to ensure that there is no entrapment of fish. Small lakes or streams shall not be used for water withdrawal.

6. The Proponent shall not use freshwater, including constructing or disturbing any stream, lakebed or the banks of any definable water course unless approved by the Nunavut Water Board.
7. The Proponent shall ensure no waste construction materials enter the water or are left on the ice.
8. The Proponent shall ensure only clean materials, free of fine particulates, are used for in-water works associated with this project.

Waste

9. The Proponent shall keep all garbage and debris properly contained and inaccessible to wildlife until disposed of. All wastes must be disposed of in an approved waste management facility.

Fuel and Chemical Storage

10. The Proponent shall submit a comprehensive Spill Contingency Plan to NIRB prior to the commencement of the project. Copies of this plan must be readily available on site, and all project personnel, contractors and sub-contractors must be made familiar with the appropriate response procedures in the event of a spill.
11. The Proponent shall locate all fuel and other hazardous materials a minimum of thirty-one (31) metres away from the high water mark of any water body and in such a manner as to prevent their release into the environment.
12. The Proponent shall store all fuel and chemicals in such a manner that they are inaccessible to wildlife.
13. The Proponent shall use secondary containment or a surface liner (drip pans, fold-a-tanks, etc.) at all fuel-transfer and refuelling stations.
14. The Proponent shall ensure that an adequate supply of spill kits, shovels, barrels, sorbents and pumps are maintained on site at all times.
15. The Proponent shall ensure that all on site personnel are properly trained in fuel and hazardous waste handling procedures and spill response procedures. All spills of fuel or other deleterious materials of any amount must be reported immediately to the 24 hour Spill Line at (867) 920-8130

Wildlife

16. The Proponent shall not harass wildlife. This includes persistently worrying or chasing animals, or disturbing large groups of animals. The Proponent shall not hunt or fish, unless proper Nunavut authorizations have been acquired.
17. The Proponent shall ensure that there is no damage to wildlife habitat in conducting this operation.
18. The Proponent shall not hunt or fish, unless proper Nunavut authorizations have been acquired.
19. The Proponent shall employ Marine Wildlife Observers onboard all vessels transporting fuel or materials for the Project. Where marine mammals are found to be in the vicinity of

dredging activities, the following protocol shall be followed, subject to vessel and human safety considerations:

- a. Wildlife will be given the right of way.
 - b. The vessel is to maintain a straight course and constant speed.
 - c. Where marine mammals appear to be trapped or disturbed by vessel movements, the vessel will stop until mammals have moved away from the area.
20. When approaching/departing concentrations of marine wildlife with a ship, the Proponent shall enforce a gradual reduction/increase in vessel speed to ensure minimum disturbance to wildlife.
21. The Proponent shall ensure that all project personnel are made aware of the measures to protect wildlife and are provided with training and/or advice on how to implement these measures.

Migratory Birds

22. The Proponent shall not disturb concentrations of sea birds encountered during mating and/or moulting; concentrations of sea birds should be avoided where possible.

Physical Environment

23. The Proponent shall implement suitable erosion and sediment suppression measures on disturbed areas before, during and after construction until vegetation or other appropriate measures are established in order to prevent sediment from entering any waterbody.
24. The Proponent shall ensure construction materials used to build structures are not taken from the shoreline or below the high water level of any waterbody. Any boulders located within the footprint of any fixed wharf crib or pile should be relocated to a similar depth adjacent to the work site.
25. The Proponent shall ensure that an erosion control cloth or equivalent is placed between the rock and the back-fill material to contain sediments and help prevent undermining.

Ship-based Activities

26. The Proponent shall not deposit, nor permit the deposit of any deleterious materials [i.e., fuel, chemicals or wastes (including waste water)] into any marine waters, and shall manage wastes on board the vessel prior to final disposal at approved port facilities.
27. The Proponent shall ensure that project activities do not interfere with Inuit wildlife harvesting or traditional activities.
28. The Proponent shall only operate when visibility is sufficient to allow the Marine Wildlife Observers to do their job effectively.
29. The Proponent shall suspend all project activities should any dead fish or wildlife, or any injured wildlife be observed in the wake of the vessel. Resumption of activities will be dependent on the results of discussions with Fisheries and Oceans Canada and Government of Nunavut – Department of Environment representatives, and the circumstances leading to the injuries or mortalities.

Other

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

NEW RECOMMENDED PROJECT-SPECIFIC TERMS AND CONDITIONS (pursuant to Section 12.4.4(a) of the NLCA)

The Board is recommending that the following or similar **additional** project-specific terms and conditions be imposed upon the Proponent through all relevant legislation:

31. If undertaking ship-based activities during periods of darkness, the Proponent shall ensure that sufficient lighting is used to provide sufficient visibility for Marine Wildlife Observers to do their job effectively.
32. If birds are found to be attracted to the ship-based lights at night, the Proponent shall shield lights vertically so as not to attract attention. Should recurring issues of bird attraction or bird mortalities occur, the Proponent shall suspend all ship-based activities during periods of darkness. Resumption of activities will be dependent on the results of discussions with relevant authorities and the circumstances leading to the injuries or mortalities.

MONITORING AND REPORTING REQUIREMENTS

The Board has previously recommended the following:

Wildlife Log/Record of Observations

1. The Proponent shall maintain a record of wildlife observations while operating within the project area. The reports should include locations (i.e., latitude and longitude), species, number of animals, a description of the animal activity, and a description of the gender and age of animals if possible. Prior to conducting project activities, the Proponent should map the location of any sensitive wildlife sites in the project area, and identify the timing of critical life history events (i.e., calving, mating, and nesting). Additionally, the Proponent should indicate potential impacts from the project, and ensure that operational activities are managed and modified to avoid impacts on wildlife and sensitive sites.

A copy of this wildlife record or report should be submitted annually at the end of the operational season to the Government of Nunavut – Department of Environment.

OTHER NIRB CONCERNS AND RECOMMENDATIONS

In addition to the project-specific terms and conditions, the Board has previously recommended the following:

1. Prior to issuance of any authorization or approval for ocean disposal of dredged sediments related to this project, Environment Canada shall forward the project proposal to NIRB in accordance with Section 12.4.1 of the NLCA.

2. All authorizing agencies shall notify the NIRB of any changes in operating plans or conditions associated with this project prior to any such change.
3. Any activity related to this project proposal, and outside the original scope of the project as described in the applications submitted to the NIRB, will be considered a new project and should be submitted to the NIRB for Screening.

Bear and Carnivore Safety

1. The Proponent review the bear/carnivore detection and deterrent techniques outlined in “Safety in Grizzly and Black Bear Country” which can be down-loaded from this link: http://www.enr.gov.nt.ca/live/documents/content/Bear_Safety.pdf. Note that some recommendations in this manual are also relevant to polar bears. There is a DVD about polar bears and safety available from Nunavut Parks at the following link <http://www.nunavutparks.com/english/visitor-information/suggested-resources.html> and a “Safety in Polar Bear Country” pamphlet from Parks Canada at the following link <http://www.pc.gc.ca/eng/pn-np/nu/auyuittuq/visit/visit6/d/i.aspx>.
2. The Proponent ensure that any problem wildlife or any interaction with carnivores should be reported immediately to the local Government of Nunavut, Department of Environment Conservation Office in Pangnirtung.

Species at Risk

3. The Proponent review Environment Canada’s “Environment Assessment Best Practice Guide for Wildlife at Risk in Canada”, available at the following link: <http://www.ec.gc.ca/Publications/default.asp?lang=En&xml=5407909E-10F6-4AFE-ACDF-75B9E820B4A1>. The guide provides information to the Proponent on what is required when Wildlife at Risk, including *Species at Risk*, are encountered or affected by the project.

Change in Project Scope

4. All Authorizing Agencies shall notify the NIRB of any changes in operating plans or conditions associated with this project prior to any such change.

REGULATORY REQUIREMENTS

The Proponent has been previously advised that the following legislation may apply to the project:

1. The *Fisheries Act* (<http://laws.justice.gc.ca/en/showtdm/cs/F-14///en>).
2. The *Nunavut Waters and Nunavut Surface Rights Tribunal Act* (<http://www.canlii.org/ca/sta/n-28.8/whole.html>).
3. The *Migratory Birds Convention Act* and *Migratory Birds Regulations* (<http://laws.justice.gc.ca/en/showtdm/cs/M-7.01>).
4. The *Species at Risk Act* (<http://laws.justice.gc.ca/en/showtdm/cs/S-15.3>). Attached in **Appendix B** is a list of Species at Risk in Nunavut.

5. The *Nunavut Wildlife Act* which contains provisions to protect and conserve wildlife and wildlife habitat, including specific protection measures for wildlife habitat and species at risk.
6. The *Nunavut Act* (<http://laws.justice.gc.ca/en/showtdm/cs/N-28.6>). The Proponent must comply with the proposed terms and conditions listed in the attached **Appendix C**.
7. The *Navigable Waters Protection Act (NWPA)* (<http://laws.justice.gc.ca/en/N-22/index.html>).
8. The *Canada Shipping Act* (<http://laws.justice.gc.ca/en/showtdm/cs/C-10.15>) which contains regulations regarding transfer of fuel and oil from vessels to shore-based fuel farms.
9. The *Arctic Waters Pollution Prevention Act* (<http://laws.justice.gc.ca/en/showtdm/cs/A-12>) which contains provisions related to the deposition of wastes in arctic waters.

Validity of Land Claims Agreement

Section 2.12.2

Where there is any inconsistency or conflict between any federal, territorial and local government laws, and the Agreement, the Agreement shall prevail to the extent of the inconsistency or conflict.

Dated May 11, 2011 at Sanikiluaq, NU.



Lucassie Arragutainaq, Chairperson

Attachments: Appendix A: Procedural History and Project Activities
Appendix B – Species at Risk in Nunavut
Appendix C – Archaeological and Palaeontological Resources Terms and Conditions for Land Use Permit Holders.

Appendix A

Procedural History and Project Activities

Past File History

The original application for the project (NIRB File No.: 09UN052) was received from DFO – Small Craft Harbours Branch on June 22, 2009. The project proposal was screened in accordance with Part 4, Article 12 of the Nunavut Land Claims Agreement (NLCA) and on July 24, 2009 the NIRB issued a 12.4.4 (a) screening decision to the Ministers of Fisheries and Oceans Canada, Minister of Transportation and Minister of Environment allowing the proposed Pangnirtung Small Craft Harbour Development activities to proceed subject to project-specific recommended terms and conditions (July 24, 2009 Screening Decision Report).

On August 11, 2009 the NIRB received an amendment from DFO for the above mentioned project. After a thorough assessment of the amendment request, the NIRB determined that the application was exempt from further screening as per Section 12.4.3 of the NLCA, and reissued the screening decision report (May 31, 2010).

On May 12, 2010 the NIRB received a second amendment request from DFO for the project and after thorough assessment of the request, the NIRB determine again that the application was exempt from further screening as per Section 12.4.3 of the NLCA and reissued the July 24, 2009 screening decision report.

On December 20, 2010 the Nunavut Impact Review Board (NIRB or Board) received Public Works and Government Services Canada's (PWGSC) "Disposal at Sea Permit" project proposal from Environment Canada (EC) amending the previously applied for Fisheries and Ocean Canada's (DFO) "Pangnirtung Small Craft Harbour Development" project proposal (NIRB File No. 09UN052). The PWGSC amendment was to allow for a Disposal at Sea Permit, and as part of the July 24, 2009 screening decision, the NIRB recommended that prior to the issuance of any authorization or approval for ocean-disposal of dredged sediments related to this project, Environment Canada shall forward the project proposal to the NIRB in accordance with Section 12.4.1 of the NLCA. On March 22, 2011 the NIRB issued a 12.4.4 (a) to the Minister of Environment allowing the proposed project to proceed subject to NIRB's previously recommended terms and conditions along with new additional terms and conditions.

Current File History

The current project proposal by PWGSC is for an amendment to their existing Environment Canada Disposal at Sea permit.

The NIRB determined that this request may result in a change to the original scope of the project and distributed the project proposal was distributed to community organizations in Pangnirtung, as well as to relevant federal and territorial government agencies, and Inuit organizations. The NIRB requested that interested parties review the proposal and the NIRB's previously recommended terms and conditions and provide the Board with any comments or concerns by May 3, 2011 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 and socio-economic effects; and if so, why;
- Whether the project is of a type where the potential adverse effects are highly predictable and mitigable with known technology, (providing any additional recommended mitigation measures); and
- Any matter of importance to the Party related to the project proposal.

On or before May 3, 2011 the NIRB received comments from the following interested parties:

- **Government of Nunavut – Culture Language Elders and Youth (GN-CLEY)**
- **Environment Canada (EC)**

All comments provided to NIRB regarding this project proposal can be viewed on NIRB's ftp-site, at the following location:

<http://ftp.nirb.ca/SCREENINGS/COMPLETED%20SCREENINGS/>

Previous Project Activities

As previously screened by the NIRB (File No. 09UN052), the DFO-Small Craft Harbours "Pangnirtung Small Craft Harbour Development" project was located within the South Baffin region, within the hamlet of Pangnirtung. The objective of the proposed construction was to upgrade the existing docking facility in Pangnirtung into a small craft harbour capable of accommodating larger vessels.

The activities/components associated with this proposal included:

- Dredging of marine area;
- Disposal of dredged sediments (potentially at sea, to be determined);
- Culvert installation on a freshwater stream;
- Temporary isolation/dewatering of tidal flats areas to permit in-water construction;
- Installation of floating docks;
- Construction of marshalling areas;
- Extension of existing breakwater;
- Construction of new breakwater; and,
- Use of existing fuelling infrastructure.

As stated in the original application, on it was proposed that materials removed through dredging of the marine area would be used for backfilling the shoreline areas of the wharf and the breakwater where applicable. On December 20, 2011 PWGSC notified the NIRB that the material being dredged from the outer harbour had been characterised as unsuitable for use as construction materials, but met the criteria for disposal at sea. The proposed disposal site was approximately 2 kilometres (km) northeast of the dredging location within Pangnirtung Fjord.

Work was proposed to take place over a 12 week period beginning around June 1, 2011 and ending by October 31, 2011 with the option of an additional year if weather and ice delays occur.

Proposed Additional Project Activities

On April 20, 2011 the NIRB received an application to amend the Disposal at Sea permit to allow for the dredging and associated disposal at sea activities to take place 24 hours a day, 7 days a week starting August 10 and continuing through to October 31, 2011.

Appendix B

Species at Risk in Nunavut

This list includes species listed on one of the Schedules of SARA (*Species at Risk Act*) and under consideration for listing on Schedule 1 of SARA. These species have been designated as at risk by COSEWIC (Committee on the Status of Endangered Wildlife in Canada). This list may not include all species identified as at risk by the Territorial Government.

- 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.

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

Updated: August 4, 2009

Species at Risk	COSEWIC Designation	Schedule of SARA	Government Organization with Lead Management Responsibility ¹
Eskimo Curlew	Endangered	Schedule 1	EC
Ivory Gull	Endangered	Schedule 1	EC
Ross's Gull	Threatened	Schedule 1	EC
Harlequin Duck (Eastern population)	Special Concern	Schedule 1	EC
Rusty Blackbird	Special Concern	Schedule 1	Government of Nunavut
Felt-leaf Willow	Special Concern	Schedule 1	Government of Nunavut
Peregrine Falcon (<i>anatum-tundrius</i> complex)	Special Concern	Schedule 1 (<i>anatum</i>) Schedule 3 (<i>tundrius</i>)	Government of Nunavut
Short-eared Owl	Special Concern	Schedule 3	Government of Nunavut
Peary Caribou	Endangered	Pending	Government of Nunavut
Beluga Whale (Eastern Hudson Bay population)	Endangered	Pending	DFO
Red Knot (<i>rufa</i> subspecies)	Endangered	Pending	EC

Beluga Whale (Cumberland Sound population)	Threatened	Pending	DFO
Atlantic Cod (Arctic population)	Special Concern	Pending	DFO
Beluga Whale (Western Hudson Bay population)	Special Concern	Pending	DFO
Beluga Whale (Eastern High Arctic – Baffin Bay population)	Special Concern	Pending	DFO
Bowhead Whale (Eastern Canada – West Greenland population)	Special Concern	Pending	DFO
Killer Whale (Northwest Atlantic / Eastern Arctic populations)	Special Concern	Pending	DFO
Porsild’s Bryum	Threatened	Pending	Government of Nunavut
Atlantic Walrus	Special Concern	Pending	DFO
Narwhal	Special Concern	Pending	DFO
Red Knot (<i>islandica</i> subspecies)	Special Concern	Pending	EC
Horned Grebe (Western population)	Special Concern	Pending	EC
Barren-ground Caribou (Dolphin and Union population)	Special Concern	Pending	Government of Nunavut
Grizzly Bear	Special Concern	Pending	Government of Nunavut
Polar Bear	Special Concern	Pending	Government of Nunavut
Wolverine (Western Population)	Special Concern	Pending	Government of Nunavut

¹ Environment Canada (EC) has a national role to play in the conservation and recovery of Species at Risk in Canada, as well as responsibility for management of birds described in the Migratory Birds Convention Act (MBCA). Day-to-day management of terrestrial species not covered in the MBCA is the responsibility of the Territorial Government. Populations that exist in National Parks are also managed under the authority of the Parks Canada Agency. The Department of Fisheries and Oceans (DFO) has responsibility for management of aquatic species.

Appendix C
 Archaeological and Palaeontological Resources Terms and Conditions
 for Land Use Permit Holders



INTRODUCTION

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

TERMS AND CONDITIONS

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

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

Note that the above-mentioned functions require either a Nunavut Archaeologist Permit or a Nunavut Palaeontologist Permit. CLEY is authorized by way of the *Nunavut and Archaeological and Palaeontological Site Regulations*¹ to issue such permits.

¹ 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 CLEY 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 CLEY.
- 6) The permittee/proponent shall follow the direction of CLEY 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 INAC's directions will also be followed.
- 7) The permittee/proponent shall provide all information requested by CLEY 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 CLEY 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 *Nunavut Land Claims 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*², 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*³, 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 Nunavut Land Claims 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*

² s. 51(1)

³ P.C. 2001-1111 14 June, 2001

GUIDELINES FOR DEVELOPERS FOR THE PROTECTION OF ARCHAEOLOGICAL RESOURCES IN THE NUNAVUT TERRITORY

(NOTE: Partial document only, complete document at: <http://gov.nu.ca/cley/english/arch.html>)

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, Language, Elders and Youth (CLEY), and the contract archaeologist(s) will ensure proper preservation of heritage resources in the Nunavut Territory. The roles of each are briefly described.

CLEY 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 CLEY 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 Nunavut Land Claims Agreement), and the Department of Indian and Northern Affairs, 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, Language, Elders and Youth. 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.