

NIRB ASSESSMENT AND DECISION

After a thorough assessment of all material provided to the Board (please see *Procedural History* and *Project Activities* in **Appendix A**), in accordance with the principles identified within Section 12.4.2 of the NLCA, the decision of the Board as per Section 12.4.4 of the NLCA is:

12.4.4 (a): the proposal may be processed without a review under Part 5 or 6; NIRB may recommend specific terms and conditions to be attached to any approval, reflecting the primary objectives set out in Section 12.2.5.

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 project-specific terms and conditions be imposed upon the Proponent through all relevant legislation:

General

1. University of Alberta – Martin Sharp (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 the NIRB (NRI Scientific Research Application, dated January 13, 2010) and the Nunavut Planning Commission (NPC Application to Determine Conformity with the North Baffin Regional Land Use Plan, dated January 29, 2010).
4. The Proponent shall operate the site in accordance with all applicable Acts, Regulations and Guidelines.

Water Use and Waste Disposal

5. The Proponent shall be advised that the use of water, disposal of wastewater or waste as a result of the project activities may require authorization from the Nunavut Water Board.
6. The Proponent shall keep all garbage and debris in bags placed in a covered metal container or equivalent until disposed of. All wastes shall be kept inaccessible to wildlife at all times.

Fuel Storage

7. The Proponent shall locate and store all fuel and other hazardous materials securely in such a manner to prevent their release into the environment, and access by wildlife.
8. The Proponent shall ensure that appropriate spill kits are readily available and use drip pans while refuelling any equipment used at the site.
9. The Proponent shall report all spills of fuel, or other deleterious materials immediately to the 24 hour Spill Line at (867) 920-8130.

Wildlife

10. The Proponent shall avoid contact with or disturbance to wildlife, its habitat and/or its residence.
11. The Proponent shall not harass wildlife. This includes persistently worrying or chasing animals, or disturbing large groups of animals should wildlife is encountered during project activities.
12. The Proponent shall restrict aircraft/helicopter activity related to the project to a minimum altitude of 610 metres above ground level unless there is a specific requirement for low-level flying, which does not disturb wildlife and migratory birds.
13. The Proponent shall ensure that aircraft maintain a vertical distance of 1000 metres and a horizontal distance of 1500 metres from any observed groups (colonies) of migratory birds, such as Ivory Gulls.
14. The Proponent shall ensure that aircraft/helicopter do not, unless for emergency, touch-down in areas where wildlife are present.
15. The Proponent shall ensure all project staff are trained in appropriate bear/carnivore detection and deterrent techniques.

Physical Environment

16. The Proponent shall ensure that the land use area is kept clean and tidy at all times.
17. The Proponent shall remove all garbage, fuel and equipment upon abandonment.

Other

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

Monitoring and Reporting Requirements

In addition, the Board is recommending the following:

The Proponent shall maintain a record of wildlife monitoring and mitigation undertaken while operating within the project area. The record should include:

- Wildlife encounters; special note should be taken of any designated Species at Risk (see Appendix B) observed in the project area, including locations and dates of any observations, their behaviour or actions when the project activities are conducted;
- Mitigation measures identified and implemented by the proponent to minimize or eliminate potential adverse impact on wildlife, the mitigation measures should include, but are not limited to avoiding contact with or disturbance to each species, its habitat and/or its residence, and
- Monitoring the effectiveness of implemented mitigation measures, which include wildlife behaviour or actions when wildlife are encountered and mitigation measures have been implemented. If necessary, further mitigation measure should be identified and implemented.

A copy of this wildlife record should be submitted annually at the end of the operational season to the following Federal and Territorial Government of Nunavut contacts:

1. Environment Canada, Mark Mallory (Seabird Biologist, Canadian Wildlife Service, Environment Canada, (867)975-4637, mark.mallory@ec.gc.ca).
2. The Government of Nunavut, Department of Environment, Debbie Jenkins, (Biologist, Baffin Region (867) 899-8876, pondbiologist@qiniq.com).

Other NIRB Concerns and Recommendations

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

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.nwtwildlife.com/Publications/safetyinbearcountry/safety.htm>. 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/pn-np/nu/auyuittuq/pdf/PolarBearEnglish2007final.pdf>.

Regulatory Requirements

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

1. The *Nunavut Waters and Nunavut Surface Rights Tribunal Act* (<http://www.canlii.org/ca/sta/n-28.8/whole.html>).
2. The *Migratory Birds Convention Act* and *Migratory Birds Regulations* (<http://laws.justice.gc.ca/en/showtdm/cs/M-7.01>).
3. 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.
4. 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.
5. 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**.
6. The *Transportation of Dangerous Goods Regulations*, *Transportation of Dangerous Goods Act* (<http://www.tc.gc.ca/tdg/menu.htm>), and the *Environmental Protection Act* (<http://laws.justice.gc.ca/en/C-15.31/text.html>) The Proponent must ensure that proper shipping documents accompany all movements of dangerous goods. The Proponent must register with the GN-DOE Manager of Pollution Control and Air Quality at 867-975-7748.

7. The *Aeronautics Act* (<http://laws.justice.gc.ca/en/A-2/>).

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 February 22, 2010 at Sanikiluaq, NU.



Lucassie Arragutainaq, Chairperson

Attachments: Appendix A: Procedural History and Past 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

Procedural History

On January 13, 2010 the Nunavut Impact Review Board (NIRB or Board) received the University of Alberta – Martin Sharp’s “Dynamics and Change of the Devon Island Ice Cap” project proposal from the Nunavut Research Institute (NRI). On January 29, 2010 the NIRB received a positive conformity determination (North Baffin Regional Land Use Plan) from the Nunavut Planning Commission (NPC) for this project proposal. The NIRB assigned this project proposal file number **10YN007**.

This project proposal was distributed to community organizations in Resolute Bay and Grise Fiord, relevant federal and territorial government agencies, and Inuit organizations. The NIRB requested that interested parties review the proposal and the NIRB’s proposed project-specific terms and conditions and provide the Board with any comments or concerns by February 11, 2010 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 recommended mitigation measures); and
- Any matter of importance to the Party related to the project proposal.

On or before February 11, 2010, the NIRB received comments from the following interested parties:

- Environment Canada
- Fisheries and Oceans Canada

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/>

Project Activities

The project is located on Devon Island in the North Baffin Region of Nunavut. The nearest community to the proposed project site is Grise Fiord, located approximately 150 km to the north. The Proponent is proposing to conduct scientific research to understand the dynamics and changes of the ice cap on Devon Island. The project will be conducted from April 25 to August 31, 2010 and is expected to continue annually until 2013.

The activities/components associated with this proposal include:

- Establishment of a temporary camp;
- Temporary fuel storage at camp site;
- Placement of temporary research instrument to measure changes in ice thickness, snow properties, glacier flow, meltwater production and runoff and rates of iceberg calving;
- Use of aircraft for personnel drop-offs and pick-ups;
- Ground transportation and mobilization by ski-doo or fixed-wing aircraft;
- Sewage and grey water disposal (via sump); and,
- Undertakings of scientific research activities.

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



BACKGROUND: Archaeology

As stated in Article 33 of the Nunavut Land Claims Agreement:

The archaeological record of the Inuit of Nunavut is a record of Inuit use and occupancy of lands and resources through time. The evidence associated with their use and occupancy represents a cultural, historical and ethnographic heritage of Inuit society and, as such, Government recognizes that Inuit have a special relationship with such evidence, which shall be expressed in terms of special rights and responsibilities. [33.2.1]

The archaeological record of Nunavut is of spiritual, cultural, religious and educational importance to Inuit. Accordingly, the identification, protection and conservation of archaeological sites and specimens and the interpretation of the archaeological record is of primary importance to Inuit and their involvement is both desirable and necessary. [33.2.2]

In recognition of the cultural, spiritual and religious importance of certain areas in Nunavut to Inuit, Inuit have special rights and interests in these areas as defined by Article 33 of the Nunavut Land Claims Agreement. [33.2.5]

BACKGROUND: Palaeontology

Under the Nunavut Act¹, the federal Government can make regulations for the protection, care and preservation of palaeontological sites and specimens in Nunavut. Under the *Nunavut Archaeological and Palaeontological Sites Regulations*², it is illegal to alter or disturb any palaeontological site in Nunavut unless permission is first granted through the permitting process.

Definitions

¹ s. 51(1)

² P.C. 2001-1111 14 June, 2001

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:

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

Terms and Conditions

- 1) The permittee shall not operate any vehicle over a known or suspected archaeological or palaeontological site.
- 2) The permittee shall not remove, disturb, or displace any archaeological artifact or site, or any fossil or palaeontological site.
- 3) The permittee shall immediately contact the Department of Culture, Language, Elders and Youth (867) 934-2046 or (867) 975-5500 or 1 (866) 934-2035 should an archaeological site or specimen, or a palaeontological site or fossil be encountered or disturbed by any land use activity.
- 4) The permittee 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 the Department of Culture, Language, Elders and Youth, Government of Nunavut.
- 5) The permittee shall follow the direction of the Department of Culture, Language, Elders and Youth and DIAND in restoring disturbed archaeological or palaeontological sites to an acceptable condition.
- 6) The permittee shall provide all information requested by the Department of Culture, Language, Elders and Youth concerning all archaeological sites or artifacts and all palaeontological sites and fossils encountered in the course of any land use activity.

- 7) The permittee shall make best efforts to ensure that all persons working under authority of the permit are aware of these conditions concerning archaeological sites and artifacts, and palaeontological sites and fossils.
- 8) The permittee shall avoid the known archaeological and/or palaeontological sites listed in Attachment 1.
- 9) The permittee shall have an archaeologist or palaeontologist perform the following functions, as required by the Department of Culture, Language, Elders and Youth:
 - a. survey
 - b. inventory and documentation of the archaeological or palaeontological resources of the land use area
 - c. assessment of potential for damage to archaeological or palaeontological sites
 - d. mitigation
 - e. marking boundaries of archaeological or palaeontological sites
 - f. site restoration

The Department of Culture, Language, Elders and Youth shall authorize by way of a Nunavut Archaeologist Permit or a Nunavut Palaeontologist Permit, all procedures subsumed under the above operations.