



SCREENING DECISION REPORT NIRB FILE NO.: 08YN069

July 18, 2008

Honourable Ed Picco
Minister of Education
Iqaluit, NU

Via email: epicco@gov.nu.ca

Re: Dr. Marie-Claude Williamson's "Planetary Analogue Research" Project Proposal

Dear Honourable Ed Picco:

The primary objectives of the Nunavut Land Claims Agreement are set out in section 12.2.5 of the Land Claims Agreement. This section reads:

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 12.4.4 of the Nunavut Land Claim Agreement states:

Upon receipt of a project proposal, NIRB shall screen the proposal and indicate to the Minister in writing that:

- 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;
- b) the proposal requires review under Part 5 or 6; NIRB shall identify particular issues or concerns which should be considered in such a review;
- c) the proposal is insufficiently developed to permit proper screening, and should be returned to the proponent for clarification; or
- d) the potential adverse impacts of the proposal are so unacceptable that it should be modified or abandoned.

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

General

1. Dr. Marie-Claude Williamson (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 to the NIRB obtained and required for this project prior to the commencement of the project.
3. The NIRB shall be notified of any changes in operating plans or conditions associated with this project prior to any such change.
4. The Proponent shall operate in accordance with all commitments stated in the application provided to the Nunavut Research Institute (NRI) and the Nunavut Planning Commission (NPC).
5. The Proponent shall operate the project activities in accordance with all applicable Acts, Regulations and Guidelines.

Fuel Storage

6. The Proponent shall locate all fuel on the land with a minimum of thirty (30) metres away from the high water mark of any water body and in such a manner as to prevent their release into the environment.
7. The proponent is required to ensure drip trays or equivalent be used at refueling sites during project operation.

Wildlife

8. The Proponent shall not harass wildlife. This includes persistently worrying or chasing animals, or disturbing large groups of animals. Deliberate feeding of any wildlife is absolutely prohibited. The Proponent shall not hunt or fish, unless the proper authorizations have been acquired.
9. 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.
10. The Proponent shall ensure that aircraft maintain a vertical distance of 1500 metres and a horizontal distance of 1500 metres from any observed groups (e.g. Ivory Gulls) of migratory birds.
11. The Proponent shall ensure that aircraft/helicopter do not, unless for emergency, touch-down in areas where wildlife are present.

Restoration

12. The Proponent shall remove all garbage, fuel barrels and debris upon abandonment.
13. The Proponent shall complete all clean-up and restoration of the lands/ice used prior to the expiry date of the permit.

Other

14. The Proponent shall be aware that any research activity in or near the Fossil Forest site on Axel Heiberg Island will require approval from the Government of Nunavut, the Department of Culture, Language, Elders and Youth (CLEY) under the *Archaeological and Palaeontological Resources Terms and conditions for Land Use Permit Holders* (**Appendix C**).

Other NIRB Concerns and Recommendations

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

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 is also 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 *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 July 18, 2008 at Sanikiluaq, NU.



Lucassie Arragutainaq, A/Chair

Appendix A Procedural History and Project Activities

Procedural History

On June 6, 2008 the Nunavut Impact Review Board (NIRB) received Dr. Marie-Claude Williamson's *Planetary Analogue Research* project proposal from the Nunavut Research Institute (NRI). On June 18, 2008 the NIRB received a positive conformity determination (North Baffin Regional Land Use Plan) from the Nunavut Planning Commission (NPC) this project proposal.

This application was distributed to the Hamlets and Hunters' and Trappers' Organization (HTO) of Resolute and Grise Fiord, Inuit organizations as well as interested Federal and Territorial Agencies. The NIRB requested that interested Parties review the application and provide NIRB with comments by July 14, 2008 regarding:

On July 14, 2008, the NIRB received comments from the Government of Nunavut, Department of Environment (GN-DOE).

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/2008_SCREENINGS/08YN069-Marie-Claude Williamson/

Project Activities

The proposed research project is located on Axel Heiberg Island, in the Northern Baffin Region of Nunavut. The nearest community to the proposed project areas is Grise Fiord, more than 400 km southeast to the closest research camp. The purpose of the project is to carry geoscientific surveys, and test field methods and geophysical instruments that could be used in future planetary exploration. The proposed research activities would be conducted from July 21 to August 25, 2008.

The project activities in this application include:

- Establishment of temporary camps (totally 3 camps);
- Temporary fuel storage;
- Aircraft use for field personnel transport;
- Geoscientific surveys at Activities at McGill Arctic Research Station; and
- Incineration of combustible wastes and removal of non-combustible waste.
- Research activities at Lightfoot River site; including:
 - to produce a more detailed map of the area.
 - to better understand the volcanic and structural history of the region.
 - to test the field methods and geophysical instruments could be used for future exploration missions to the Moon.
- Research activities at Agate Fiord site; including:
 - to produce a detailed map of sulphide chimneys located in salt domes discovered in 2004.
 - to better understand the volcanic and structural history of the region.
 - to test the field methods and geophysical instruments could be used for future exploration missions to Mars.

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: January 3, 2007

Species at Risk	COSEWIC Designation	Schedule of SARA	Government Organization with Lead Management Responsibility ¹
Eskimo Curlew	Endangered	Schedule 1	EC
Ivory Gull	Endangered ²	Schedule 1	EC
Peregrine Falcon (subspecies anatum)	Threatened	Schedule 1	Government of Nunavut
Ross's Gull	Threatened	Schedule 1	EC
Harlequin Duck (Eastern population)	Special Concern	Schedule 1	EC
Felt-leaf Willow	Special Concern	Schedule 1	Government of Nunavut
Peregrine Falcon (subspecies tundrius)	Special Concern	Schedule 3	Government of Nunavut
Short-eared Owl	Special Concern	Schedule 3	Government of Nunavut
Fourhorn Sculpin	Special Concern	Schedule 3	DFO
Peary Caribou	Endangered ³	Pending	Government of Nunavut
Beluga Whale (Eastern Hudson Bay population)	Endangered	Pending	DFO
Beluga Whale (Cumberland Sound population)	Threatened	Pending	DFO
Beluga Whale (Western Hudson Bay population)	Special Concern	Pending	DFO
Beluga Whale	Special Concern	Pending	DFO

(Eastern High Arctic – Baffin Bay population)			
Bowhead Whale (Hudson Bay-Foxe Basin population)	Threatened ⁴	Pending	DFO
Bowhead Whale (Davis Strait-Baffin Bay population)	Threatened ⁴	Pending	DFO
Porsild's Bryum	Threatened	Pending	Government of Nunavut
Atlantic Walrus	Special Concern	Pending	DFO
Narwhal	Special Concern	Pending	DFO
Rusty Blackbird	Special Concern	Pending	Government of Nunavut
Barren-ground Caribou (Dolphin and Union population)	Special Concern ³	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 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. EC = Environment Canada, DFO = Department of Fisheries and Oceans

² Designated as Endangered by COSEWIC in April 2006 and it is expected that the category of concern in SARA will also be changed from Special Concern to Endangered.

³ Peary Caribou was split into three separate populations in 1991: Banks Island (Endangered), High Arctic (Endangered) and Low Arctic (Threatened) populations. The Low Arctic population also included the Barren-ground Caribou - Dolphin and Union population. In May 2004 all three population designations were de-activated, and the Peary Caribou, Rangifer tarandus pearyi, was assessed separately from the Barren-ground Caribou (Dolphin and Union population), Rangifer tarandus groenlandicus. The subspecies pearyi is composed of a portion of the former "Low Arctic population" and all of the former "High Arctic" and "Banks Island" populations, and it was designated Endangered in May 2004. Although SARA lists Peary Caribou on Schedule 2 as three separate populations, the most current designation is the COSEWIC designation of the subspecies pearyi as Endangered.

⁴ The "Eastern and Western Arctic populations" of Bowhead Whale were given a single designation of Endangered in April 1980 by COSEWIC. These were split into two populations to allow separate designations in April 1986. The Eastern population was not re-evaluated in April 1986, but retained the Endangered status of the original "Eastern and Western Arctic populations". The Eastern Arctic population was further split into two populations (Hudson Bay-Foxe Basin population and Davis Strait-Baffin Bay population) in May 2005, and both these populations were designated as Threatened. Both these populations are under consideration for addition to Schedule 1. Although SARA lists the Eastern Arctic population as Endangered (Schedule 2), the most current designation is the COSEWIC designations of the Hudson Bay-Foxe Basin and Davis Strait-Baffin Bay populations as Threatened.

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.