



NIRB File No.: 14YN012

April 22, 2014

Claudia Schröder-Adams
Department of Earth Sciences
Carleton University
Ottawa, ON K1S 5B6

Sent via email: Claudia.schroderadams@carleton.ca

Re: Notice of Part 4 Screening for Carleton University's "Cretaceous High Arctic Paleoenvironmental and Paleoclimate Change" project proposal

Dear Claudia Schröder-Adams:

On March 28, 2014 the Nunavut Impact Review Board (NIRB or Board) received Carleton University's "Cretaceous High Arctic paleoenvironmental and paleoclimate change" project proposal from the Nunavut Research Institute. On April 3, 2014 the NIRB received a positive conformity determination (North Baffin Regional Land Use Plan) from the Nunavut Planning Commission. The NIRB has assigned this project proposal file number **14YN012**.

Following a preliminary completeness check, the NIRB determined that the proposal as submitted did not contain sufficient information for the NIRB to permit proper screening. On April 9, 2014 the NIRB requested that Carleton University – Claudia Schröder-Adams provide additional information in support of this proposal. The additional information was received by the NIRB on April 10, 2014.

The proposed project is located in the Qikiqtani region, approximately 320 kilometres north of Grise Fiord. The program is proposed to take place during the month of July 2014, and is intended to use micro-fossil tracking and chemical analysis to provide more clarity on the climate in the area during the Cretaceous time period.

The project activities include:

- Collection of sediment samples within 1 kilometre of each camp using a hand tool;
 - Collection of approximately 500 samples (between 1 tablespoon and 2 cups each);
- Logistical support through Resolute Bay Polar Continental Shelf Program;
- Flights to and from site by fixed wing aircraft and helicopter;
- Temporary tent camp at 3 different locations, to accommodate 4 people;
- Sewage and grey water waste buried at site; other solid waste flown out;

- Filming of the expedition; and
- Aviation fuel stored at Sherwood Head, Axel Heiberg Island totalling (2) 200 litre barrels plus (1) 5 gallon jerry can of gasoline for use at camps.

All documents received and pertaining to this project proposal can be obtained from the NIRB's online public registry at the following link:

<http://ftp.nirb.ca/01-SCREENINGS/ACTIVE%20SCREENINGS/14YN012-Carleton%20U-Creataceous%20Paleoenvironmental/> including:

- *NRI Scientific Research Licence Application Form in English; including non-technical summary in English and Inuktitut;*
- *Maps*
- *NPC Conformity Determination and Questionnaire*

Pursuant to Part 4, Article 12 of the Nunavut Land Claims Agreement (NLCA), the NIRB shall proceed to screen this project proposal. The NIRB may request additional information at any time during the process. The NIRB will copy you on screening process related correspondence and upload related documents to the above ftp site for public access.

The NIRB is copying parties and municipalities potentially affected by Carleton University's project proposal with this letter, and we invite interested parties to comment directly to the NIRB by **Friday May 2, 2014**.

The NIRB would like parties to provide comments 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, (please provide any recommended mitigation measures); and
- Any matter of importance to the Party related to the project proposal.

Please note that proposed project-specific terms and conditions, should the project proceed, have been attached for consideration and comment (**Appendix A**).

Please send your comments to the NIRB at info@nirb.ca or via fax at **(867) 983-2594**.

If you have any questions or concerns, please contact the undersigned at 867-983-4611 or tarko@nirb.ca.

Sincerely,



Tara Arko
Technical Advisor
Nunavut Impact Review Board

cc: Distribution List
 Mosha Cote, Nunavut Research Institute
 Tracey McCaie, Aboriginal Affairs and Northern Development Canada

Enclosures (2): Comment Forms (English and Inuktitut)

Appendix A
Proposed Project Specific Terms and Conditions

The following is a list of project-specific terms and conditions which, should the project proceed, may be recommended to be attached to any approval.

General

1. Carleton University (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 (NRI Application, March 28, 2014) and (NPC Questionnaire, April 3, 2014)
4. The Proponent shall operate the site in accordance with all applicable Acts, Regulations and Guidelines.

Water

5. The Proponent shall not use water, including constructing or disturbing any stream, lakebed or the banks of any definable water course unless approved by the Nunavut Water Board.

Waste

6. The Proponent shall keep all garbage and debris in bags placed in a covered metal container or equivalent until disposed of at an approved facility. All such wastes shall be kept inaccessible to wildlife at all times.

Fuel and Chemical Storage

7. Where possible, 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.
8. The Proponent shall ensure that re-fuelling of all equipment occurs a minimum of thirty-one (31) metres away from the high water mark of any water body.
9. The Proponent shall store all fuel and chemicals in such a manner that they are inaccessible to wildlife.
10. The Proponent shall ensure that all personnel are properly trained in fuel and hazardous waste handling procedures, as well as 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 - General

11. The Proponent shall ensure that there is no damage to wildlife habitat in conducting this operation.

12. 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.
13. 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.
14. The Proponent shall ensure all project staff are trained in appropriate bear/carnivore detection and deterrent techniques.

Migratory Birds and Raptors Disturbance

15. The Proponent shall not disturb or destroy the nests or eggs of any birds. If nests are encountered and/or identified, the Proponent shall take precaution to avoid further interaction and or disturbance (e.g., a 100 metre buffer around the nests). If active nests of any birds are discovered (i.e. with eggs or young), the Proponent shall avoid these areas until nesting is complete and the young have left the nest.

Aircraft Flight Restrictions

16. 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.
17. 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. Aircraft should avoid critical and sensitive wildlife areas at all times by choosing alternate flight corridors.
18. The Proponent shall ensure that aircraft/helicopter do not, unless for emergency, touch-down in areas where wildlife are present.
19. The Proponent shall advise all pilots of relevant flight restrictions and enforce their application over the project area, including flight paths to/from the project area.

Caribou and Muskoxen Disturbance

20. The Proponent shall cease activities that may interfere with the migration or calving of caribou or muskox, until the caribou or muskox have passed or left the area.

Ground Disturbance

21. The Proponent shall not move any equipment or vehicles unless the ground surface is in a state capable of fully supporting the equipment or vehicles without rutting or gouging. Overland travel of equipment or vehicles must be suspended if rutting occurs.

Temporary Camps and Land Use

22. The Proponent shall ensure that all camps are located on gravel, sand or other durable land.
23. The Proponent shall not erect camps or store material on the surface ice of lakes or streams.
24. The Proponent shall ensure that the land use area is kept clean and tidy at all times.

Restoration of Disturbed Areas

25. The Proponent shall remove all garbage, fuel and equipment upon abandonment.

Other

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

27. Any activity related to this application, and outside the original scope of the project as described in the application, will be considered a new project and should be submitted to the NIRB for Screening.