



**NIRB File No.: 24YN013**  
NPC File No.: 150244

April 4, 2024

Mark Skidmore  
Montana State University  
Department of Earth Sciences, 226 Traphagen Hall  
Bozeman Montana 59717 United States

Sent via email: [skidmore@montana.edu](mailto:skidmore@montana.edu)

**Re: Notice of Screening for Montana State University’s “Biogeochemical characterization of saline and glacial systems on Axel Heiberg Island” project proposal**

Dear Mark Skidmore:

On February 28, 2024, the Nunavut Impact Review Board (NIRB) received a referral to screen Montana State University’s (MSU) “Biogeochemical characterization of saline and glacial systems on Axel Heiberg Island” project proposal from the Nunavut Planning Commission (Commission), with an accompanying positive conformity determination with the North Baffin Regional Land Use Plan. On March 15, 2024, the NIRB received the complete application from the Proponent.

Pursuant to Article 12, Sections 12.4.1 and 12.4.4 of the *Agreement between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in right of Canada (Nunavut Agreement)* and s. 87 of the *Nunavut Planning and Project Assessment Act*, S.C. 2013, c. 14, s. 2 (*NuPPAA*), the NIRB has commenced screening this project proposal and has assigned it file number **24YN013** - please reference this file number in all future related correspondence.

#### PROJECT OVERVIEW

***Project Scope:***

All documents received and pertaining to this project proposal can be accessed from the NIRB’s online public registry at [www.nirb.ca/project/125895](http://www.nirb.ca/project/125895).

<b>Project:</b>	Biogeochemical characterization of saline and glacial systems on Axel Heiberg Island
<b>Region:</b>	Qikiqtani (North Baffin)
<b>Location:</b>	Axel Heiberg Island

<b>Closest Community:</b>	Grise Fiord	<b>Distance (approximate)</b>	300 kilometres (km)	<b>Direction</b>	Northwest
<b>Summary of Project Description:</b>	The research on Axel Heiberg Island would involve taking samples of water, ice, snow, brine, salt and sediments from the Stolz Diapir in Whitsunday Bay and from a glacier that feeds into Skaare Fiord.				
<b>Project Proposed Timeline:</b>	March to June, 2024				

According to the project proposal, the scope of the project includes the following undertakings, works or activities:

- Sampling of snow, water, sediments;
- Use of a Twin Otter for transport and movement between camp locations;
- Use of snowmobiles;
- Use of a generator;
- Use of propane (120 lbs) and gasoline (100 litres); and
- Removal of non-combustible and sewage.

***Inclusion or Exclusion of Scoping List***

At this time, the NIRB has identified no additional works or activities in relation to the project proposal. As a result, the NIRB will proceed with screening the project based on the scope as described above.

REQUEST FOR COMMENTS

All documents received can be accessed from the NIRB’s online public registry at [www.nirb.ca/project/125895](http://www.nirb.ca/project/125895) and include:

- *Commission Conformity Determination*
- *Commission Application and Questionnaire*
- *NIRB’s Online Application*

The NIRB will copy you on screening process related correspondence and upload related documents to the NIRB’s online registry for public access. The NIRB may request additional information at any time during the process.

The NIRB is copying parties and municipalities potentially affected by MSU’s project proposal with this letter, and we invite interested parties to comment directly to the NIRB by **April 14, 2024**.

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 or socio-economic effects; and if so, why;

- Whether the project proposal is likely to cause significant adverse impacts on wildlife habitat or Inuit harvest activities; and if so, why;
- Whether the project proposal is of a type where the potential adverse effects are highly predictable and mitigable with known technology, (and providing 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](#)).

#### CONTACT INFORMATION

Please send your comments to the NIRB via email at [info@nirb.ca](mailto:info@nirb.ca), via fax at (867) 983-2594 or via the individual project dashboard for this assessment on the NIRB's online public registry at [www.nirb.ca/project/125895](http://www.nirb.ca/project/125895).

If you have any questions or require clarification, feel free to contact the undersigned at 867-983-4617 or [kmorrison@nirb.ca](mailto:kmorrison@nirb.ca).

Sincerely,



Keith Morrison  
Manager Impact Assessment  
Nunavut Impact Review Board

Attachments: Appendix A: *Proposed* Project Specific Terms and Conditions

Enclosures (4): Public Notice of Screening (English, and Inuktitut)  
Comment Forms (English, and Inuktitut)

cc: Distribution List  
Richard Dwyer, Nunavut Water Board  
Mosha Cote, Nunavut Research Institute  
Tracey McCaie, Crown-Indigenous Relations and Northern Affairs Canada

## 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. Montana State University (the Proponent) shall maintain a copy of the Project Terms and Conditions at the site of operation at all times and make it accessible to enforcement officers upon request.
2. The Proponent shall operate in accordance with all commitments stated in correspondence provided to the Nunavut Planning Commission (NPC File No.: 150244), and the NIRB (Online Application Form, March 15, 2024). This information should be accessible to enforcement officers upon request.
3. The Proponent shall operate the site in accordance with all applicable Acts, Regulations and Guidelines.
4. The Proponent shall ensure that it meets the standards and/or limits as set out in the authorizing agencies' permits or licences as required for this project.
5. The Proponent shall ensure that all personnel, staff and contractors are adequately trained prior to commencement of all project activities, and shall be made aware of all operational plans, management plans, guidelines and Proponent commitments relating to the project.

### Water courses/Water bodies (including fresh and marine waters)

6. The Proponent shall ensure that water extraction from any fish-bearing waterbody is done with appropriate care and caution. Small lakes or streams should not be used for water withdrawal unless approved by the appropriate authorizing agency.
7. The Proponent shall ensure that no disturbance of the stream bed, lakebed or the banks of any definable watercourse be permitted, except where deemed necessary for maintaining project-specific operational commitments or approved by a responsible authority in cases of spill management.
8. The Proponent shall not deposit, nor permit the deposit of any fuel, chemicals, wastes (including wastewater) or sediment into any water body. The Proponent should have in place an Emergency Spill Response Plan that is approved by the appropriate authorizing agency(ies).

### Waste Management

9. The Proponent shall manage all hazardous and non-hazardous waste including food, domestic wastes, debris and petroleum-based chemicals (e.g., greases, gasoline, glycol-based antifreeze) in such a manner to avoid release into the environment and access to wildlife at all times until disposed of appropriately or at an approved facility.
10. The Proponent shall incinerate all combustible wastes as needed and dispose of as required by the appropriate authorizing agencies. All non-combustible wastes from the project site shall be removed to an approved facility for disposal.

## **Fuel and Chemical Storage**

11. The Proponent shall locate all fuel and other hazardous materials a minimum distance away from the high-water mark of any water body and environmentally sensitive areas as required by the appropriate authorizing agencies. The materials shall be stored in such a manner as to prevent their release into the environment.
12. The Proponent shall use adequate secondary containment or a surface liner (e.g., self-supporting insta-berms and fold-a-tanks) when storing barreled fuel and chemicals at all locations.
13. The Proponent shall ensure that re-fuelling of all equipment occurs a minimum distance away from the high-water mark of any water body as required by the appropriate authorizing agencies.
14. All fuel and chemical storage containers must be clearly marked with the Proponent's name for ease of identification.
15. The Proponent shall have a Spill Contingency Plan in place at all fuel storage or transfer locations and shall ensure that appropriate spill response equipment and clean-up materials (e.g., shovels, pumps, barrels, drip pans, and absorbents) are readily available.
16. The Proponent shall follow the authorizing agencies' direction for management and removal of hazardous materials and wastes (e.g., contaminated soils, sediment and waste oil).
17. The Proponent shall ensure that wildlife deterrent systems are utilized at the time of a spill incident in order to avoid wildlife (terrestrial or marine) and migratory birds from being contaminated.
18. The Proponent shall ensure that all spills of fuel or other deleterious materials of 100 litres or more must be reported immediately to the 24-hour Spill Line at (867) 920-8130.

## **Wildlife – General**

19. The Proponent shall not substantially alter or damage or destroy any wildlife habitat in conducting this operation unless otherwise authorized by the appropriate authorizing agencies.
20. The Proponent shall not chase, weary, harass or molest wildlife. This includes persistently circling, chasing, hovering over, pursuing or in any other way harass wildlife, or disturbing large groups of animals.
21. The Proponent shall not hunt or fish, unless proper Nunavut authorizations have been acquired.

## **Migratory Birds and Raptors Disturbance**

22. The Proponent shall carry out all phases of the project in a manner that protects migratory birds and avoids harming, killing or disturbing migratory birds or destroying, disturbing or taking their nests or eggs. In this regard, the Proponent shall take into account Environment and Climate Change Canada's *Avoidance Guidelines*. The Proponent's actions in applying the *Avoidance Guidelines* shall be in compliance with the *Migratory Birds Convention Act, 1994* and with the *Species at Risk Act*.
23. The Proponent shall not disturb or destroy the nests or eggs of any birds. If active nests of any birds are discovered or located (i.e., with eggs or young), the Proponent shall avoid these areas

until nesting is complete and the young have naturally left the vicinity of the nest by establishing a protection buffer zone<sup>1</sup> appropriate for the species and the surrounding habitat.

### **Aircraft Flight Restrictions**

24. The Proponent shall not alter flight paths to approach wildlife and avoid flying directly over animals.
25. The Proponent shall plan flight paths that minimize flights over known habitat likely to have birds or concentrations of wildlife. Aircraft should avoid critical and sensitive wildlife areas at all times by choosing alternate flight corridors.
26. The Proponent shall restrict aircraft/helicopter activity related to the project to a minimum flight altitude of 610 metres (2,100 ft) above ground level except during landing, take-off or if there is a specific requirement for low-level flying, which does not disturb wildlife or migratory birds.
27. The Proponent shall avoid known concentrations of birds (e.g., bird colonies, moulting areas) by a lateral distance of 1.5 kilometre. If avoidance is not possible maintain a minimum flight altitude of 1,100 metres (3,500 feet) over these areas.
28. The Proponent shall ensure that aircraft/helicopter do not, unless for emergency, touch-down in areas where wildlife are present.
29. 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.

### **Land Use and Restoration of Disturbed Areas**

30. The Proponent shall ensure that the land use area is kept clean and tidy at all times.
31. The Proponent shall avoid disturbance on slopes prone to natural erosion, and alternative locations shall be utilized.
32. The Proponent shall remove all garbage, fuel and equipment at the end of each field season and/or upon completion of work and/or upon abandonment.
33. The Proponent shall ensure that all disturbed areas are restored to a stable or pre-disturbed state using Best Available Technology Economically Achievable (BATEA) upon completion of work and/or abandonment.

### **Camps**

34. The Proponent shall ensure that all camps are located durable surfaces, such as gravel or sand that is consolidated and can withstand repeated, heavy use. Measures shall be put in place to prevent erosion, trail formation and damage to the ground.
35. The Proponent shall not erect camps or store materials on the surface ice of lakes or streams, except that which is for immediate use.

### **Heritage Sites**

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<sup>1</sup> Recommended setback distances to define buffer zones have been established by Environment and Climate Change Canada for different bird groups nesting in tundra habitat and can be found at [www.ec.gc.ca/paom-itmb](http://www.ec.gc.ca/paom-itmb).

36. The Proponent shall ensure that archaeological and paleontological sites are not purposely or inadvertently disturbed by clients or staff as a result of project activities.
37. The Proponent shall ensure that all clients and staff are aware of the Proponent's responsibilities and requirements regarding archaeological or palaeontological sites that are encountered during land-based activities. This should include briefings explaining the prohibitions regarding removal of artifacts, and defacing or writing on rocks and infrastructure.
38. No activities shall be conducted in the vicinity (50 metres buffer zone) of any archaeological/historical sites. If archaeological sites or features are encountered, activities shall immediately be interrupted and moved away from this location. Each site encountered needs to be recorded and reported to the Government of Nunavut-Department of Culture and Heritage.

### **Other**

39. The Proponent should consult with local residents regarding their activities in the area and solicit available Inuit Qaujimaningit and information that can inform project activities.
40. The Proponent shall ensure that project activities do not interfere with Inuit wildlife harvesting or traditional land use activities.

The Proponent should, to the extent possible, hire local people and access local services where possible.