



**Environment Environnement
Canada Canada**

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July 17, 2009

Our file: 4704 004 022
NWB file: 3BC-CPI

Richard Dwyer
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Via email at: licensingadmin@nunavutwaterboard.org

Re: NWB 3BC-CPI- Geological Survey of Canada- CPI Project - Type "B" Water License

On behalf of Environment Canada (EC), I have reviewed the information submitted with the above-mentioned application. The following specialist advice has been provided pursuant to Environment Canada's mandated responsibilities for the enforcement of the *Canadian Environmental Protection Act*, Section 36(3) of the *Fisheries Act*, the *Migratory Birds Convention Act*, and the *Species at Risk Act*.

The objective of this project is to target the Cumberland Peninsula for geomapping as part of the Geomapping of Energy and Minerals initiative. This work will result in a better understanding of eastern Baffin Island's lithological associations, crustal architecture and mineral potential; thereby aiding the exploration industry and providing updated geosciences information for the communities of Pangnirtung and Qikiqtarjuaq. Project activities will include, helicopter supported regional bedrock mapping, assessment of exploration potential, mapping and sampling of surficial materials, sampling of bedrock, and integration of ground-based geological data, satellite imagery. A temporary camp will be set up in the area to accommodate approximately 25 persons from June 25 to August 22, 2009 and 2010.

Based on the information presented at this time, EC has no real concerns with the issuance of this water license. Comments and recommendations submitted for the project on January 20, 2009 in response to the NIRB Part 4 Screening, would apply to this water license application (see attached).

If there are any changes in the proposed project, EC should be notified, as further review may be necessary. Please do not hesitate to contact me with any questions or comments with regards to the foregoing at (867) 975-4631 or by email at carrie.spavor@ec.gc.ca.

Yours truly,

Original signed by

Carrie Spavor
Environmental Assessment Coordinator

c.c: Carey Ogilvie (Head, Environmental Assessment-North, EPO, Yellowknife, NT)
Ron Bujold (Environmental Assessment Technician, EPO, Yellowknife, NT)



Environment Environnement
Canada Canada

Environmental Protection Branch
5204 - 50th Avenue Suite 301
Yellowknife NT X1A 1E2

January 20, 2009

Our file: 4704 004 022
Your File: 08YN085

Leslie Payette
Manager of Environmental Administration
Nunavut Impact Review Board
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Cambridge Bay NU X0B 0C0

lpayette@nirb.ca

RE: NIRB 08YN085 – “Cumberland Peninsula Integrated Geoscience” Project – Mary Sanborn-Barrie

On behalf of Environment Canada (EC), I have reviewed the information submitted with the above-mentioned application. The following specialist advice has been provided pursuant to Environment Canada's mandated responsibilities for the enforcement of the *Canadian Environmental Protection Act*, Section 36(3) of the *Fisheries Act*, the *Migratory Birds Convention Act*, and the *Species at Risk Act*.

The objective of this project is to target the Cumberland Peninsula for geomapping as part of the Geomapping of Energy and Minerals initiative. This work will result in a better understanding of eastern Baffin Island's lithological associations, crustal architecture and mineral potential; thereby aiding the exploration industry and providing updated geosciences information for the communities of Pangnirtung and Qikiqtarjuaq. A camp will be set up in the area to accommodate 20 persons between July 5 and August 20, 2009.

Environment Canada recommends that the following conditions be applied throughout all stages of the project:

1. The proponent shall ensure that any chemicals, fuel, or wastes associated with the proposed land use permit amendment application do not enter waters frequented by fish. It is a requirement of Section 36(3) of the *Fisheries Act* that all effluent discharged into water frequented by fish, be non-deleterious.
2. All fuel caches shall be located above the high water mark of any water body. EC recommends the use of secondary containment, such as self-supporting insta-berms, when storing barreled fuel on location rather than relying on natural depressions.
3. As the possibility of broken fuel lines or leaks during storage exists, the proponent should have a spill contingency plan that outlines a clear path of response and should include, but not be limited to the following:
 - * operational practices for the handling of fuels and hazardous fluids
 - * contact list of persons to be contacted in the event of a spill
 - * location of equipment, both on and off site to be used in the event of a spill
 - * state that all spills of fuel or hazardous materials, adjacent to or into a water body, regardless of quantity, are to be documented and reported to the NWT/NU - 24 Hour Spill Line number (867) 920-8130
 - * an appropriate spill kit with absorbent material should be located on site
 - * drip pans, or other similar preventative measures, should be used when refuelling equipment
4. All sumps used for the disposal of camp greywater and sewage shall be located above the high water mark of any waterbody and in such a manner as to prevent the contents from entering any

waterbody frequented by fish. Further, all sumps shall be backfilled upon completion of the project and contoured to match the surrounding landscape.

5. If disposing of combustible waste by incineration, the proponent should follow and comply with Canada Wide Standards for Dioxins and Furans, and the Canada Wide Standards for Mercury emissions with respect to burning or incineration. In order for these guidelines to be met, at a minimum, an incinerator with dual chamber and forced air to allow for sufficient residence time and temperature to maximize combustion should be used. If incineration will not be used, the proponent should ensure that any waste, combustible or not, are disposed at an appropriate facility.
6. Section 6 (a) of the Migratory Birds Regulations states that no one shall disturb or destroy the nests or eggs of migratory birds. If active nests are encountered during project activities, the nesting area should be avoided to prevent disturbance (i.e. the young have left the vicinity of the nest).
7. In order to reduce disturbance to nesting, moulting, and migrating birds, Environment Canada recommends that aircraft used in conducting project activities maintain a flight altitude of at least 650 m during horizontal (point to point) flight unless safety or cloud ceiling do not permit. Environment Canada also recommends that aircraft maintain a vertical distance of 1000 m and minimum horizontal distance of 1500 m from any observed concentrations (flocks / groups) of birds.
8. Environment Canada recommends that camp waste be made inaccessible to wildlife at all times. Camp waste can attract predators of migratory birds (e.g., foxes and ravens) to an area if not disposed of properly.
9. Section 5.1 of the *Migratory Birds Convention Act* prohibits persons from depositing substances harmful to migratory birds in waters or areas frequented by migratory birds or in a place from which the substance may enter such waters or such an area.
10. All mitigation measures identified by the proponent, and the additional measures suggested herein, should be strictly adhered to in conducting project activities. This will require awareness on the part of the proponents' representatives (including contractors) conducting operations in the field. EC recommends that all field operations staff be made aware of the proponents' commitments to these mitigation measures and provided with appropriate advice / training on how to implement these measures.
11. Implementation of these measures may help to reduce or eliminate some effects of the project on migratory birds, but will not necessarily ensure that the proponent remains in compliance with the *Migratory Birds Convention Act* (the *Act*) and *Migratory Birds Regulations* (the *Regulations*). The proponent must ensure they remain in compliance with the *Act* and *Regulations* during all phases and in all undertakings related to the project.
12. The following comments are pursuant to the *Species at Risk Act* (SARA), which came into full effect on June 1, 2004. Section 79 (2) of SARA, states that during an assessment of effects of a project, the adverse effects of the project on listed wildlife species and its critical habitat must be identified, that measures are taken to avoid or lessen those effects, and that the effects need to be monitored. This section applies to all species listed on Schedule 1 of SARA. However, as a matter of best practice, Environment Canada suggests that species on other Schedules of SARA and under consideration for listing on SARA, including those designated as at risk by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC), be considered during an environmental assessment in a similar manner.
 - Species at Risk that could be encountered or affected by the project should be identified and any potential adverse effects of the project to the species, its habitat, and/or its

residence noted. All direct, indirect, and cumulative effects should be considered. Refer to species status reports and other information on the Species at Risk registry at www.sararegistry.gc.ca for information on specific species.

- If Species at Risk are encountered or affected, the primary mitigation measure should be avoidance. The proponent should avoid contact with or disturbance to each species, its habitat and/or its residence.
- Monitoring should be undertaken by the proponent to determine the effectiveness of mitigation and/or identify where further mitigation is required. As a minimum, this monitoring should include recording the locations and dates of any observations of Species at Risk, behaviour or actions taken by the animals when project activities were encountered, and any actions taken by the proponent to avoid contact or disturbance to the species, its habitat, and/or its residence. This information should be submitted to the appropriate regulators and organizations with management responsibility for that species, as requested.
- For species primarily managed by the Territorial Government, the Territorial Government should be consulted to identify other appropriate mitigation and/or monitoring measures to minimize effects to these species from the project.
- Mitigation and monitoring measures must be taken in a way that is consistent with applicable recovery strategies and action/management plans.

If there are any changes in the proposed project, EC should be notified, as further review may be necessary. Please do not hesitate to contact me with any questions or comments at (867) 669-4746 or by email at jane.fitzgerald@ec.gc.ca.

Yours truly,

Jane Fitzgerald
Environmental Assessment Coordinator

cc: Carey Ogilvie (Head, Assessment & Monitoring, EPO)
Mike Fournier (Northern Environmental Assessment Coordinator, A&M, EPO)