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Re: NWB 3BC-PRO Provenance of Clastic Sediments in the Sverdrup Basin, Canadian Arctic Islands Project Amendment Application

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 the *Canadian Environmental Protection Act*, Section 36(3) of the *Fisheries Act*, the *Migratory Birds Convention Act*, and the *Species at Risk Act*.

Dr Robert Scott of the Cambridge Arctic Shelf Program (CASP) is applying for an amendment to the existing water license for NWB 3BC-PRO Provenance of Clastic Sediments in the Sverdrup Basin, Canadian Arctic Islands Project. There is no change to the scope of the original project proposal; however, CASP is applying to change the locations of the field camps to Blind Fiord 78°10'N, 85°30'W and Trold Fiord 78°40'N, 85°30'W. Environment Canada provides the following comments and recommendations for the amendment application for the Nunavut Water Board's consideration:

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.

Terrestrial Species at Risk ¹	COSEWIC Designation	Schedule of SARA	Government Organization with Primary Management Responsibility ²
Ivory Gull	Endangered	Schedule 1	EC
Peary Caribou	Endangered	Pending	Government of Nunavut
Porsild's Bryum	Threatened	Pending	Government of Nunavut

Red Knot (islandica	Special	Pending	EC
subspecies)	Concern		
Polar Bear	Special Concern	Pending	Government of Nunavut
Wolverine (Western Population)	Special Concern	Pending	Government of Nunavut

¹The Department of Fisheries and Oceans has responsibility for aquatic species.

Impacts could be disturbance and attraction to operations.

Environment Canada recommends:

- O 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.
- o 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.
- o Mitigation and monitoring measures must be taken in a way that is consistent with applicable recovery strategies and action/management plans.
- O Ivory Gulls are medium-sized gulls that can be identified by their pure white plumage and black legs. Ivory Gull nest in colonies on windswept plateaus, ice-choked islands, or on steep cliffs of mountains protruding from glaciers. Ivory Gulls nest on Ellesmere Island, although the proposed project is not near any known Ivory Gull nesting colonies. It is possible that Ivory Gull colonies exist in the High Arctic that have not yet been noted. If inland groups of gulls are encountered that could be nesting Ivory Gulls, these areas should be avoided to prevent disturbance and observations reported to the Canadian
- 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. Environment Canada recommends that all field staff be made aware of the proponents' commitments to these mitigation measures and provided with appropriate advice/training on how to implement these measures.
- o Implementation of these measures may help to reduce or eliminate some effects of the project on migratory birds and Species at Risk, but will no necessarily ensure that the proponent remains in compliance with the Migratory Birds Convention Act, Migratory

² 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. Thus, for species within their responsibility, the Territorial Government is best suited to provide detailed advice and information on potential adverse effects, mitigation measures, and monitoring.

Birds Regulations, and the Species at Risk Act. The proponent must ensure they remain in compliance during all phases and in all undertakings related to the project.

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 Paula Smith with any questions or comments with regards to the foregoing at (867) 975-4631 or by email at Paula.C.Smith@ec.gc.ca.

Yours truly,

Original signed by

Carrie Spavor Environmental Assessment Coordinator

cc: Carey Ogilvie (Head, Environmental Assessment-North, EC, Yellowknife, NT) Ron Bujold (Environmental Assessment Technician, EC, Yellowknife, NT) Paula Smith (Environmental Assessment Coordinator, EC, Iqaluit, NU)