Environment Canada Environnement Canada

Environmental Protection Operations Directorate
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NWB file: 3BC-GCS1212

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Via email: licensing@nunavutwaterboard.org

Attention: Ms. Beaulieu

RE: 3BC-GCS1212 Prince of Wales Icefields Project - Renewal - Type B - Qikiqtani Region

Environment Canada (EC) has reviewed the information supporting the water license renewal application submitted to the Nunavut Water Board (NWB). The following specialist advice is provided pursuant to the *Canadian Environmental Protection Act 1999*, the pollution prevention provisions of the *Fisheries Act*, the *Migratory Birds Convention Act*, and the *Species at Risk Act.*

Shawn Marshall, of the University of Calgary, is applying to the NWB to renew water license 3BC-GCS1212. The project includes research activities on the Prince of Wales Icefield, Ellesmere Island and the renewal would allow for continued research activities in the summer of 2013.

Based on a review of the renewal application, EC would like to notify the proponent that the status and listing of certain species at risk present in the project area have changed since their initial application. The following table has the most current information for the species at risk that may be found in the area, and updated information on the Red Knot is below.

1. Paragraph 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 until nesting is complete (i.e. the young have left the vicinity of the nest). The Proponent should consult the fact sheet "Planning Ahead to Reduce Risks to Migratory Bird Nests" available at: http://www.ec.gc.ca/paom-itmb/ for further guidance.

2. 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.

3. In order to reduce aircraft disturbance to migratory birds, EC recommends the following, subject to pilot discretion regarding aircraft and human safety:

- Fly at times when few birds are present (e.g., early spring, late fall, winter)
- If flights cannot be scheduled when few birds are present, plan flight paths that minimize flights over habitat likely to have birds and maintain a minimum flight altitude of 650 m (2100 feet).
- Minimize flights during periods when birds are particularly sensitive to disturbance such as migration, nesting, and moulting.
- Plan flight paths to avoid known concentrations of birds (e.g., bird colonies, moulting areas) by a lateral distance of at least 1.5 km. If avoidance is not possible, maintain a minimum flight altitude of 1100 m (3500 feet) over areas where birds are known to concentrate.
- Avoid the seaward side of seabird colonies and areas used by flocks of migrating waterfowl by 3 km.
- Avoid excessive hovering or circling over areas likely to have birds.
- Inform pilots of these recommendations and areas known to have birds.

4. The following comments are pursuant to the *Species at Risk Act* (SARA). Subsection 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, EC 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. The Table below lists species that may be encountered in the project area that have been assessed by COSEWIC as well as their current listing on Schedules 1-3 of SARA (and designation if different from that of COSEWIC). Project impacts could include species disturbance and destruction of habitat.

Terrestrial Species at Risk potentially within project area [1]	COSEWIC Designation	Schedule of SARA	Government Organization with Primary Management Responsibility [2]
Red Knot (*islandica* subspecies)	Special Concern	Schedule 1	EC
Ivory Gull	Endangered	Schedule 1	EC
Peary Caribou	Endangered	Schedule 1	Government of Nunavut
Polar Bear	Special Concern	Schedule 1	Government of Nunavut
Wolverine (Western population)	Special Concern	Pending	Government of Nunavut
Porsild's Bryum	Threatened	Pending	Government of Nunavut

[1] The Department of Fisheries and Oceans has responsibility for aquatic species.
[2] EC 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.

- For any Species at Risk that could be encountered or affected by the project, the proponent should note any potential adverse effects of the project to the species, its habitat, and/or its residence. All direct, indirect, and cumulative effects should be considered. Refer to species status reports and other information on the Species at Risk registry at http://www.sararegistry.gc.ca for more 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.

5. EC notes that the project area is within the range of Peary Caribou. EC recommends that the proponent contact the Government of Nunavut regarding specific mitigation measures and make every effort to minimize disturbance both on the ground and in the air.

6. EC notes that the *islandica* subspecies of Red Knot (a shorebird) was added to Schedule 1 of SARA as a Special Concern species in 2012. The Red Knot (*islandica* subspecies) breeding range overlaps with the location of the project area. Although the major threats to Red Knot relate to habitat degradation in the wintering areas and decreases in food resources during spring migration, the proponent should ensure that extra precautions are taken to avoid any disturbance to the Red Knot or its habitat during the breeding season. Red Knots nest on barren habitats (often less than 5% vegetation) such as windswept ridges, slopes or plateaus. Nest sites are usually in dry, south-facing locations, and may be located near wetlands or lake edges, where the young are led after hatching. Nests are simple scrapes on the ground in small patches of vegetation. Nesting will occur in June with hatching in early July. If an active Red Knot nest is encountered during project activities, or observations of Red Knot in the area suggest that a nest could be nearby, the proponent should avoid all activities in the area until nesting is complete (i.e., likely only resume activities in the area until after mid-July).

7. Ivory Gulls are medium-sized gulls that can be identified by their pure white plumage and black legs. Ivory Gulls nest in colonies on windswept plateaus, ice-choked islands, or on steep cliffs of mountains protruding from glaciers. Ivory Gulls nest on the Inglefield Mountains on Ellesmere Island and eastern Devon Island (Sites 1 and 11 in Latour *et al.* 2008),. It is possible that Ivory Gull colonies exist in the High Arctic that have not 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 Wildlife Service (CWS) of EC.

8. The CWS of EC is interested in observations of birds, especially observations of birds identified as Species at Risk (e.g., Red Knot, Ivory Gulls) or of species occurring outside their known ranges. Proponents are encouraged to submit their observations to eBird Canada (http://ebird.org/content/canada). Observations submitted to eBird are immediately available to anyone interested in birds in the north. Observations can also be sent to the NWT/NU Bird Checklist program:

   NWT/NU Bird Checklist Survey
   Canadian Wildlife Service, Environment Canada
   5019 - 52 Street, 4th Floor
   P.O. Box 2310
   Yellowknife NT, X1A 2P7
   Phone: 867.669.4771
   Email: NWTChecklist@ec.gc.ca

   Please contact the CWS for blank checklist forms

Should you require further information, please do not hesitate to contact me at 867-669-4746 or jane.fitzgerald@ec.gc.ca.

Sincerely,

Fitzgerald

Jane Fitzgerald
Environmental Assessment (EA) Coordinator

cc: Yonghsu Fan, Senior EA Coordinator, EA-North, Environmental Assessment and Marine Programs-PNR, EC
Vanessa Charlwood, Head, Western Arctic Unit, CWS, EC