

Environmental Protection Operations
Qimugjuk Building 969
P.O. Box 1870
Iqaluit, NU X0A 0H0
Tel: (867) 975-4631
Fax: (867) 975-4645

14 June 2010

EC file: 4703 001 091
NWB file: 2BE-KIM0609

Phyllis Beaulieu
Manager of Licensing
Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU X0B 1J0

Via email:licensing@nunavutwaterboard.org

RE: 2BE-KIM0609 Renewal Application – Kimmirut Beluga Sapphire Project – Qikiqtani Region

Environment Canada (EC) has 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*.

True North Gems Inc. (True North) is applying to renew their Type 'B' water license for water use associated with exploration activities in their Kimmirut Beluga Sapphire Project. Since 2004 extensive prospecting, mapping, bulk sampling, and diamond drilling have occurred. True North is in the continued process of evaluating the property which will involve additional prospecting and mapping. No camp will be associated with this water license and no grey water or sewage will be generated as staff will be accommodated in Kimmirut. Work will occur seasonally between June through October.

EC provides the following comments and recommendations for the NWB's consideration:

Camp

1. The proponent shall not deposit, nor permit the deposit of chemicals, sediment, wastes, or fuels associated with the project into any water body. According to the *Fisheries Act*, Section 36 (3), the deposition of deleterious substances of any type in water frequented by fish, or in any place under any conditions where the deleterious substance, or any deleterious substance that results from the deposit of the deleterious substance, may enter any such water, is prohibited.
2. Refuelling shall not take place below the high water mark of any water body and shall be done in such a manner as to prevent any hydrocarbons from entering any water body frequented by fish. EC recommends that drip pans, or other similar preventative measures, should be used when refuelling equipment.
3. Decanting of snow or water from the berm area should proceed only if the appropriate chemical analysis has determined that the contents will not violate the requirements of Section 36.3 of the *Fisheries Act*, such as contact with hydrocarbons.

4. EC recommends the use of secondary containment, such as self-supporting insta-berms, for storage of all barrelled fuel rather than relying on natural depressions to contain spills.
5. A spill kit, including shovels, barrels, absorbents, etc. should be readily available at all locations where fuel is being stored or transferred in order to provide immediate response in the event of a spill.
6. Spills are to be documented and reported to the NWT/NU 24 hour Spill Line at (867)920-8130. EC recommends that all releases of harmful substances, regardless of quantity, are immediately reported where the release:
 - is near or into a water body;
 - is near or into a designated sensitive environment or sensitive wildlife habitat;
 - poses an imminent threat to human health or safety; or,
 - poses an imminent threat to a listed species at risk or its critical habitat.

Wildlife and Species at Risk

1. 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 until nesting is complete (i.e., the young have left the vicinity of the nest).
2. Environment Canada recommends that food, domestic wastes, and petroleum-based chemicals (e.g., greases, gasoline, glycol-based antifreeze) be made inaccessible to wildlife at all times. Such items can attract predators of migratory birds such as foxes, ravens, gulls, and bears. Although these animals may initially be attracted to the novel food sources, they often will also eat eggs and young birds in the area. These predators can have significant negative effects on the local bird populations.
3. 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.
4. In order to reduce aircraft disturbance to migratory birds, Environment Canada recommends the following:
 - 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.
5. 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

Terrestrial Species at Risk ¹	COSEWIC Designation	Schedule of SARA	Government Organization with Primary Management Responsibility ²
Harlequin Duck (Eastern population)	Special Concern	Schedule 1	EC
Peregrine Falcon (<i>anatum-tundrius</i> complex ⁴)	Special Concern	Schedule 1 (<i>anatum</i>) Schedule 3 (<i>tundrius</i>)	Government of Nunavut
Polar Bear	Special Concern	Pending	Government of Nunavut
Wolverine (Western population)	Special Concern	Pending	Government of Nunavut

Impacts could be disturbance.

Environment Canada recommends:

- 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.
- Harlequin Ducks spend most of the year in coastal marine environments, but they move inland each spring to breed along fast-flowing turbulent streams. Their nests are usually built on the ground along the stream banks. Harlequin Ducks are tolerant of moderate levels of disturbance, but they will abandon a site when the disturbance becomes chronic. Disturbance events can include boating, ATVs and chronic human

presence. If a Harlequin Duck nest or a hen with ducklings is encountered, the proponent should avoid activities in the area until nesting is complete and the brood has moved beyond the range of disturbance.

- Observations of Harlequin Ducks should be reported to the Canadian Wildlife Service of Environment Canada through 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: 867.669.4773
Email: NWTChecklist@ec.gc.ca

6. 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 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.
7. Implementation of these measures may help to reduce or eliminate some effects of the project on migratory birds and Species at Risk, but will not necessarily ensure that the proponent remains in compliance with the *Migratory Birds Convention Act*, *Migratory 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.

Previous comments submitted on behalf of EC by D. Abernathy on 19 September 2005 and 19 April 2006 and by C. Spagnuolo 7 July 2005 would still apply to this project (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 Paula.C.Smith@ec.gc.ca.

Yours truly,



Paula C. Smith
Environmental Assessment Coordinator

cc: Carey Ogilvie (Head, Environmental Assessment-North, EPO, Yellowknife, NT)
Ron Bujold (Environmental Assessment Technician, EPO, Yellowknife, NT)
Myra Robertson (Population Management Biologist, CWS, Yellowknife, NT)
James Hodson (Environmental Assessment Officer, CWS, Yellowknife, NT)