Environment Canada Environnement Canada

Environment Canada
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February 20, 2008

Your file: 2BE-PEL0507

Richard Dwyer
Licencing Administrator
Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU X0B 1J0

Re: Diamonds North Resources Ltd. – Pelly Bay Area Project – Type "B" Water Licence Renewal

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*.

Project Overview:

It is EC's understanding that Diamonds North Ltd. is applying for the water licence renewal for their kimberlite/diamond exploration camp in the Amaruk area located South-West of the community of Kugaaruk, Nunavut. This licence was originally issued under BHP Billiton in 2005. The water licence would allow for the continued permit to obtain water for the purposes of mining exploration. This application is a continuance of work initiated in 2006 and will include drilling of up to 20 diamond drill hoes and up to 60-80 small and shallow reverse circulation drill holes per year. Drilling will occur during the ice free months. A light weight diamond drill and 2-3 reverse circulation drills will be used and will be moved from each location by helicopter. Two temporary camps will be used to house approximately 30-40 people total. The Amaruk camp is located 46km SSE of the community of Kugaaruk, NT. The Siku camp is located approximately 150kms SW of Kugaaruk, NT. The Amaruk camp site is currently permitted under the Land Use permit 2BE-PEL/GA.

General:

- The proponent shall not deposit, nor permit the deposit of any fuel, drill cuttings, chemicals, wastes, or sediment 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 other deleterious substance that results from the deposit of the deleterious substance, may enter any such water, is prohibited.
- Environment Canada recommends that all sumps are located a sufficient distance from the high water mark of any waterbody, and that they are constructed such that the contents do not migrate out from the sump.

Drilling:

- Environment Canada would like to remind the proponent that the *Canadian Environmental Protection Act* has listed CaCl as a toxic substance. If not properly disposed of, CaCl can potentially promote thawing of permafrost and hence migrate through the active layer. Sump stability is a concern, due to the potential for surface slumping and erosion as well as out-migration of sump contents. The proponent shall therefore ensure that if CaCl is used as a drill additive, all sumps containing CaCl are properly constructed and located in such a manner as to ensure that the contents will not enter any water body.

- Drilling additives or muds shall not be used in connection with holes drilled through lake ice unless they are re-circulated or contained such that they do not enter the water, or demonstrated to be non-toxic.

- For 'on-ice' drilling, return water released must be non-toxic, and not result in an increase in total suspended solids in the immediate receiving waters above the Canadian Council of Ministers of the Environment Guidelines for the Protection of Freshwater Aquatic Life (i.e., 10 mg/L for lakes with background levels under 100 mg/L, or 10% for those above 100 mg/L).

Camps:

- The proponent shall not store materials on the surface ice of lakes or streams, except that which is for immediate use.
- Environment Canada recommends the use of an approved incinerator for the disposal of combustible wastes.

Spill Contingency:

- Environment Canada recommends that all fuel be properly stored in an upright position to prevent possible leaks or spills. EC also encourages the use of self supporting insta-berms to provide secondary containment for all fuel caches, rather than relying on natural depressions.

The Canadian Wildlife Service (CWS) of Environment Canada has reviewed the above-mentioned submission and makes the following comments and recommendations pursuant to the *Migratory Birds Convention Act* (the *Act*) and *Migratory Birds Regulations* (the *Regulations)*, and the *Species at Risk Act* (SARA).

1. Section 6 (a) of the Migratory Birds Regulations states that no one shall disturb or destroy the nests or eggs of migratory birds. Therefore, Environment Canada recommends that all activities in which there is a risk of disturbing or destroying nests or eggs be conducted outside the migratory bird breeding season, which

extends from approximately May 15 to July 31. These dates are approximate, and if active nests (i.e. nests containing eggs or young) are encountered outside of these dates the proponent should avoid the area until nesting is complete (i.e. the young have left the vicinity of the nest).

2. For activities permitted to occur during the breeding season, Environment Canada recommends that the proponent confirm there are no active nests (i.e. nests containing eggs or young) in the vicinity of their operations before activities commence. If active nests of migratory birds are discovered, the proponent should halt all activities in the nesting area until nesting is completed (i.e. the young have left the vicinity of the nest).

- The proponent has indicated that they will adhere to the recommended environmentally acceptable minimum flight altitudes and avoid low level flights over areas known for waterfowl nesting, although no specific flight altitudes were indicated. In order to reduce disturbance to nesting birds, CWS recommends that aircraft used in conducting project activities maintain a flight altitude of at least 610 m during horizontal (point to point) flight.

3. 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.

4. 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.

5. 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.

6. 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.

7. 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 may be encountered	COSEWIC Designation	Schedule of SARA	Government Organization with Primary Management Responsibility [1]
Peregrine Falcon (subspecies tundrius)	Special Concern	Schedule 3	Government of Nunavut
Grizzly Bear	Special Concern	Pending	Government of Nunavut
Polar Bear	Special Concern	Pending	Government of Nunavut
Wolverine (Western Population)	Special Concern	Pending	Government of Nunavut

[1] 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.

Impacts could be disturbance and attraction to operations.

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. 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.
- The proponent should record the locations and frequency of any observations of Species at Risk and note any actions taken to avoid contact or disturbance to the species.
- For species under the responsibility of 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.

Should you have any further questions please contact myself, Savanna Levenson at (867) 669-4772 or via email at savanna.levenson@ec.gc.ca.

Yours truly,

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