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*Via email: [iporter@nunavutwaterboard.org](mailto:iporter@nunavutwaterboard.org)*

**Re: Nueltin Lake Exploration Project- Amendment**

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

Cameco Corporation (Cameco) is applying to amend the current water license for the Nueltin Lake exploration project. The 2009 program is planned to commence on July 17<sup>th</sup>, 2009 and would include a ground geophysical, geological mapping, prospecting, and line cutting programs. The line cutting program will consist of refurbishing 27 existing lines (36.2 km) and the creation of 11 new lines (13.4 km). In order to support the 2009 ground geophysical program, Cameco is applying for a 5 person temporary camp consisting of two sleep tents, a kitchen tent, a dry/shower facility and a small outhouse. All solid waste and sewage will be transported to Nueltin Lake Lodge for disposal. Grey water will be disposed of on site in a sump located a minimum of 50 m from the high water mark of the nearest water body.

Environment Canada has no issues with the amendment provided the proponent follows mitigation measures outlined in the application and that they are in compliance with their existing water license. Terms and conditions applied to the existing water license should be carried forward to the amendment of the license.

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

## Recommendations

### **General:**

- 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.
- The proponent shall not deposit nor permit the deposit of slash, debris or sediment into any water body. These materials should be disposed of above the high water mark in such a fashion that they do not enter the water.
- The proponent shall not erect camps or store materials on the surface ice of lakes or streams, except that which is for immediate use.

### **Fuel/Spill Contingency:**

- When storing barreled fuel on location, EC recommends the use of secondary containment, such as self-supporting insta-berms, rather than using natural depressions. Further, all fuel caches shall be located above the high water mark of any water body and in such a manner as to prevent the contents from entering any water body frequented by fish.
- 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.

### **Abandonment and Reclamation Plan:**

- On page 6, section 5.1 of the Abandonment and Restoration Plan for the Nuelin Lake Project, it is stated that “grey water will be disposed of in a small, hand-excavated sump, 1 m in diameter and .5 m depth. This will be located at minimum 20 m from the high-water line of the nearest water body.” Please note that the current water license states in Part D “The Licensee shall locate areas designated for waste disposal at a minimum distance of 30 m from the ordinary high water mark of any water body.” Please note that the Abandonment and Reclamation Plan should be updated to meet license requirements.

### **Wildlife:**

- 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 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).

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).

- 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.
- 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.
- 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.
- 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 <sup>1</sup>	COSEWIC Designation	Schedule of SARA	Government Organization with Primary Management Responsibility <sup>2</sup>
Rusty Blackbird	Special Concern	Schedule 1	Government of Nunavut
Short-eared Owl	Special Concern	Schedule 3	Government of Nunavut
Wolverine (Western Population)	Special Concern	Pending	Government of Nunavut

<sup>1</sup> The Department of Fisheries and Oceans has responsibility for aquatic species.

<sup>2</sup> Environment Canada (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. Populations that exist in National Parks are also managed under the authority of the Parks Canada Agency.

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. 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](http://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.
- 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.
- 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.

Yours truly,

***Original signed by***

Carrie Spavor  
Environmental Assessment Coordinator

c.c: Carey Ogilvie (Head, Environmental Assessment-North, EC, Yellowknife, NT)  
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