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Our file: 4710 001

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RE: NWB 8BC-THE – Cumberland Resources Ltd. – Tehek Lake Access Road Project

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*.

Cumberland Resources Ltd is applying for a new license for water use and waste disposal associated with construction of a 115km all-weather road and camp operations for use in the Tehak Lake Project, in the Kivalliq region. Proposed construction will take place between the Meadowbank site and the Hamlet of Baker Lake. The all-weather road will be used to provide access to the site during mine construction and milling facilities, as well as, providing a transportation route from Baker Lake to the site for supplies required until the end of mining production in 2018.

Environment Canada notes that this project is a component of the larger Meadowbank Gold Project that recently underwent a Part 5 review under Article 12 of the NLCA. Issues related to the construction, operation and decommissioning of the all-weather private access road were assessed as part of this project, and specific terms and conditions relating to this project component have been issued as per the NIRB Final Hearing Report for the Meadowbank Gold Project (August 2006), which was accepted by the Minister of Indian and Northern Affairs on November 17, 2006. These comments are made with the understanding that Cumberland Resources Ltd. is to comply with all of the terms and conditions established for the Meadowbank Gold Project, which particular emphasis for this project on terms and conditions #31-35.

The current planned route for the road will require 23 stream crossings to be constructed, ten of which will be bridge crossings due to the physical size of the channel to be crossed or because the stream is ranked as having a high fish habitat value. In addition, it is anticipated that road construction will require the development of 11 quarries along the route to provide the necessary aggregate for construction purposes.

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

- The proponent shall not deposit, nor permit the deposit of any fuel, 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.
- Oil shall not be used in implementing dust control measures during construction and operation of the road.
- The proponent shall ensure that measures to prevent sedimentation of the downstream environment are employed during both the excavation and installation of the fill material used to construct all river and stream crossings.
- The proponent shall ensure that any fill material utilized is clean and free of fines.
- Should water be encountered during excavation, preventative measures should be implemented at the discharge point to minimize erosion and sedimentation. Any water encountered should be discharged above the high water mark of any surrounding water bodies.
- All fuel caches shall be located above the high water mark of any water body. Further, EC recommends the use of secondary containment, such as self-supporting insta-berms, when storing barreled fuel on location rather than relying on natural depressions.
- Drip pans, or other similar preventative measures, should be used when refueling equipment on site.
- No person shall store used oil or waste fuel except in a container manufactured for the purpose of storage of petroleum products. A person storing used oil or waste fuel shall ensure that the container is tightly closed, stored, handled and maintained so as to prevent spill from the container or damage to or deterioration of the container.
- The proponent shall not store any materials on the surface ice of lakes or streams, except that which is for immediate use.
- The proponent shall not deposit, nor permit the deposit of sediment into any water body. It is recommended that an undisturbed buffer zone of at least 100 meters be maintained between any of the proposed quarry operations and the normal high water mark of any water body.
- As per Term and Condition #31 of the NIRB Final Hearing Report, the application documents should include detailed information on the stream crossing design criteria. This information should be submitted for review as soon as possible.

Environment Canada notes that Term and Condition #54(g) of the NIRB Final Hearing Report indicates that Cumberland must submit details of the annual breeding bird plot surveys and transects that are to be conducted along the all-weather road during the construction phase and for at least the first 3 years of operation. Environment Canada requests confirmation from Cumberland that this information for the construction phase is forthcoming, as the application documents indicate that construction of the road will be occurring from November/06 – July/07.

Environment Canada recommends the development of a **Spill Contingency Plan** which outlines their responsibilities for prevention, preparedness, response and mitigation of project-related malfunctions and accidents, spills and environmental emergencies. This plan should summarize spill response measures, provide a chain of command, identify where fuel caches will be established, and provide a list of emergency contacts. It is recommended that this plan be developed and submitted for review as soon as possible.

- It is recommended that Jim Noble of Environment Canada be added to the Spill Contingency Plan contact list for direction on how to proceed in the event of a spill (867- 975-4644) or the 24 hour Emergencies Pager (867-920-5131).
- **All spills** shall be documented and reported to the 24 hour Spill Line.

It is EC's understanding that the proponent plans to incinerate sewage, solid waste, used oil and waste fuel at the camp incinerator provided by Nuna M & T Services Ltd (NWB 3BC-TEK).

- The proponent shall ensure that all non-combustible and hazardous wastes receive treatment in an approved incinerator and disposal at an approved facility.
- Staff training should be conducted to ensure the incinerator is operated properly.
- Used absorbent materials, oily or greasy rags, and equipment servicing wastes (such as used engine oil, antifreeze, hydraulic oil, lead acid batteries, brake fluid and other lubricants) should be safely stored and transported in sealed containers and safely transported to a facility that is authorized for the treatment and disposal of industrial hazardous wastes.

The **Decommissioning and Reclamation Plan** included in the application does not provide sufficient information for EC to adequately evaluate its effectiveness. As per the NIRB Final Hearing Report, Term and Condition #35, Cumberland shall reclaim the all-weather private access road to at the end of the mine life, including scarification and restoration of natural hydrology, topography and vegetation. It is recommended that the Decommission and Reclamation Plan be revised to It is recommended that the plan include:

- Details regarding the removal and disposal of any culverts and bridges at the end of the project.
- Loosening compact soil and flattening side slopes of road will be contoured to match the surrounding landscapes.
- Indicate all sumps will be backfilled upon completion of their project and contoured to match the surrounding landscape.

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*).

- 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).
- 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.
- Section 35 of the *Migratory Birds Regulations* states that no person shall deposit or permit to be deposited, oil, oil wastes or any other substance harmful to migratory birds in any waters or any area frequented by migratory birds.
- 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, 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.
- 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, EC asks that species listed on other Schedules of SARA and under consideration for listing also be included in this type of assessment.

Species at Risk that may be encountered	Category of Concern	Schedule of SARA	Government Organization with Expertise on Species
Short-eared Owl	Special Concern	Schedule 3	Government of Nunavut
Peregrine Falcon (subspecies tundrius)	Special Concern	Schedule 3	Government of Nunavut
Grizzly Bear	Special Concern	Pending	Government of Nunavut
Wolverine (Western Population)	Special Concern	Pending	Government of Nunavut

Impacts to these species could be disturbance and attraction to operations.

Environment Canada recommends:

- Species at Risk that could be encountered should be identified and any potential adverse effects noted. Refer to the Species at Risk registry at www.sararegistry.gc.ca for information on specific species.
- If Species at Risk are encountered, the primary mitigation measure should be avoidance. The proponent should avoid contact with or disturbance to each species.
- The proponent should consult with the Government of Nunavut and appropriate status reports, recovery strategies, action plans, and management plans to identify other appropriate mitigation measures to minimize effects to these species from the project.
- 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.

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) 975-4639 or by email at cindy.parker@ec.gc.ca.

Yours truly,

Original signed by

Cindy Parker
Environmental Assessment Technician

cc: (Colette Spagnuolo, Environmental Assessment & Contaminated Sites Specialist, Environment Canada, Iqaluit)