Environment Canada / Environnement Canada

Environmental Protection Operations
Prairie and Northern Region
5019 52nd Street, 4th Floor
P.O. Box 2310
Yellowknife, NT, X1A 2P7

17 October 2012

EC file: 4709 012 001 090
MVEIRB file: EA0809-004

Richard Edjericon
Chairperson
Mackenzie Valley Environmental Impact Review Board
P.O. Box 938
Yellowknife, NT, X1A 2N7

Via Email: chubert@reviewboard.ca

Dear Mr. Edjericon,

RE: Environment Canada's Final Comments – EA0809-004 – Fortune Minerals Limited – NICO Cobalt-Gold-Bismuth-Copper Project

Please find below Environment Canada's (EC) closing comments regarding the Environmental Assessment (EA) for the NICO Mine Project.

Following the public hearings held from September 27-31st and October 10-11th, 2012, parties to the EA were given the opportunity to submit in writing closing comments, additional clarifications, as well as any outstanding responses to questions raised during the hearings.

EC participated in the review of the proposed NICO Mine Project in order to provide specialist advice, information and knowledge to the Mackenzie Valley Environmental Impact Review Board (MVEIRB). EC will not be issuing permits or authorizations for the proposed Project, but has regulatory duties and responsibilities under applicable legislation as follows: *Department of the Environment Act*, *Canadian Environmental Protection Act, 1999*, the pollution prevention provisions of the *Fisheries Act*, the *Migratory Birds Convention Act*, and the *Species at Risk Act* (SARA). Various regulations, policies and guidelines stem from these statutes.

EC is pleased to provide the Board with an update on boreal caribou following the posting of the final recovery strategy. EC also acknowledges that follow-up with the Proponent may be required to develop plans to avoid incidental take of nests and eggs of migratory birds, to determine lighting requirements for the communications tower and to determine Site Specific Water Quality Objectives during the licencing phase, should the project be approved. EC provided nine (9) recommendations in its Technical Report of June 15th 2012. All of the recommendations were agreed to by the Proponent. In this final submission, EC is noting a few points of clarification as described below.

1. *Boreal Caribou:* The final "Recovery Strategy for the Woodland Caribou (*Rangifer tarandus caribou*), Boreal Population, in Canada"[1] was posted on the Species at Risk Public Registry on October 05, 2012.

[1] http://www.sararegistry.gc.ca/document/default_e.cfm?documentID=2253

The recovery goal for boreal caribou is to achieve self-sustaining local populations in all boreal caribou ranges throughout their current distribution in Canada, to the extent possible. Consistent with the requirements of the SARA, the recovery strategy identifies critical habitat for boreal caribou.

Under SARA, critical habitat is defined as "the habitat that is necessary for the survival or recovery of a listed wildlife species and that is identified as the species' critical habitat in the recovery strategy or in an action plan for the species". For boreal caribou, critical habitat identification describes the habitat that is necessary to maintain or recover self-sustaining local populations throughout their distribution.

Boreal caribou shift in their use of range over space and time, in accordance with changes in the location of biophysical attributes within the range as areas of disturbed and undisturbed habitat cycle on the landscape. For a local population to be self-sustaining over time, this habitat supply system (i.e. critical habitat) must function perpetually.

The critical habitat necessary to achieve the population and distribution objectives for the recovery and survival of boreal caribou is partially identified in this strategy. Critical habitat for boreal caribou is identified as: i) the area within the boundary of each boreal caribou range that provides an overall ecological condition that will allow for an ongoing recruitment and retirement cycle of habitat, which maintains a perpetual state of a minimum of 65% of the area as undisturbed habitat; and ii) biophysical attributes required by boreal caribou to carry out life processes.

The recovery strategy identifies 65% undisturbed habitat in a range as the disturbance management threshold, which provides a measurable probability (60%) for a local population to be self-sustaining. This threshold is considered a minimum threshold because at 65% undisturbed habitat there remains a significant risk (40%) that local populations will not be self-sustaining.

The final recovery strategy now includes a definition of disturbed habitat as being habitat showing: i) anthropogenic disturbance visible on Landsat at a scale of 1:50,000, including habitat within a 500 m buffer of the anthropogenic disturbance; and/or ii) fire disturbance in the last 40 years, as identified in data from each provincial and territorial jurisdiction (without buffer).

The Northwest Territories (NWT) South and NWT North population ranges originally identified in the proposed Recovery Strategy for boreal woodland caribou have now been combined into one population range, the Northwest Territories Range (NT1), in the final recovery strategy. Based on an assessment of satellite imagery and fire mapping current to 2009-2010, 31% of the Northwest Territories Range (NT1) has been classified as disturbed in the final recovery strategy. The amount of undisturbed habitat (69%) is currently above the 65% threshold identified as providing a 60% chance that a population will be self-sustaining.

In ranges with 65% or more undisturbed habitat, critical habitat is at least 65% undisturbed habitat in a range. The habitat that is included in the 65% undisturbed habitat will change over time given the dynamic nature of the boreal forest.

As outlined in EC's submission to the Mackenzie Valley Environmental Impact Review Board for the Public Hearings on the NICO Project (June 15th, 2012), the buffered footprints for the proposed NICO project access road (NPAR) and the proposed Tlicho Road could add a total of 26,469 ha of new disturbance to the Northwest Territories Range. This would represent an addition of 0.06% habitat disturbance to the range.

The project would not add sufficient new disturbance to compromise the ability of the range to maintain 65% undisturbed habitat. EC nonetheless encourages the proponent to consult with Government of NWT Environment and Natural Resources (GNWT-ENR) caribou experts and the Wek'eezhii Renewable Resources Board to determine how the project aligns with management strategies and action plans for boreal caribou and to identify and mitigate any potential negative effects on key biophysical attributes for boreal caribou within the project area. Biophysical attributes are the habitat characteristics required by boreal caribou to carry out life processes necessary for survival and recovery. Biophysical attributes are described by ecozone in Appendix H of the final recovery strategy in order to capture the ecological variation across the current distribution of boreal caribou. The portion of the Northwest Territories Range that overlaps with the NPAR and the proposed Tlicho road lies within the Taiga Plains ecozone. Biophysical attributes of critical habitat within the Taiga Plains ecozone are described in table H-1(pg. 78) of the recovery strategy.

Habitat disturbance within a range needs to be managed by the responsible jurisdiction at a level that will allow for a local population to be self-sustaining. To guide the protection of critical habitat and the recovery of boreal caribou, range plans and/or action plans will be prepared following the recovery strategy. These plans will provide detailed information on recovery measures that will be implemented by provinces and territories, Environment Canada, other federal departments, wildlife management boards, Aboriginal communities, stakeholders, and other organizations involved in the conservation, survival and recovery of boreal caribou. The GNWT and wildlife management boards, as established under comprehensive land claims, have management authority for boreal caribou in the Northwest Territories. Aboriginal Affairs and Northern Development Canada (AANDC) and the Tlicho Government will play a key role in the management and protection of critical habitat on lands under their authority. To acknowledge the fact that the proposed NICO project access road is located on Tlicho private lands, EC revised the original recommendations for boreal caribou in our written technical submission to the following, as presented at the Public Hearings:

1) The Proponent consult with GNWT-ENR caribou experts and the Wek'eezhii Renewable Resources Board to determine how the project aligns with management strategies and action plans for boreal caribou and to identify and mitigate any potential negative effects on key biophysical attributes for boreal caribou within the project area; and
2) The Proponent consult with the Tlicho Government, GNWT-ENR and AANDC to determine the implications of the project for boreal caribou in the context of current and future development activities within the range, and to assess the cumulative impacts on undisturbed habitat.

2. *Disturbance / Destruction of nests and eggs of migratory birds:* The Proponent anticipated that all clearing will be performed in winter. The Proponent indicated that, if that was not the case, they would work with EC to develop a monitoring and mitigation plan to avoid

incidental take of nests and eggs. EC will provide advice to the Proponent on such plans should the need arise. Despite the Proponent's plan to conduct all clearing during winter, a risk of incidental take of nests and eggs of migratory birds may still remain from construction and operation of the tailings co-disposal facility during summer. The Proponent must ensure they remain in compliance with the *Migratory Birds Convention Act* and Regulations during all phases and in all undertakings related to the project.

3. *Mitigation measures to minimize risk of bird collisions with the communications tower:* The Proponent committed to light the communications tower as per the relevant legislation. At the Public Hearings, EC noted that Transport Canada is proposing amendments to lighting requirements on communications towers to address the issue of avian fatalities due to birds being attracted to steady burning lights on towers. EC recommended that the Proponent consult with Transport Canada to determine tower lighting requirements and whether flashing red, red strobe or white strobe lights can be used instead of steady burning lights to reduce the risk of bird collisions. EC also notes that conforming with lighting requirements does not address the collision hazard posed by guy wires supporting the tower. EC recommended that if guy wires must be used to support the communications tower, they should be fitted with bird diverters.

4. *Site Specific Water Quality Objectives (SSWQOs):* With respect to SSWQOs, EC has reviewed the closure Technical Memorandum dated August 20, 2012, and would like to reiterate our position that further work should be completed during the regulatory process with respect to setting the objectives. The narrative statements identified by the Tlicho Government in their presentation (Recommendation #1) set the stage for a broader approach to determining SSWQOs than has been presented in the closure document. This is consistent with EC's recommendations for further work on the objectives and therefore EC recommends that the setting of SSWQOs be taken forward to the licencing stage.

Implications of the Traditional Knowledge Studies

EC has reviewed the *Tlicho Nation Traditional Knowledge and Use Study* submitted on September 15th, 2012. EC shares the Tlicho Government's concerns, as documented in the TK study, with maintenance of water quality and protection of wildlife. It is EC's view that the use of best-available treatment technology as proposed by Fortune Minerals along with water management and mitigation measures should maintain water quality at an acceptable level. To provide a measure, water quality objectives need to be set which are protective of the aquatic ecosystems as well as the uses identified in the TK report. Further, EC notes that there will be rigorous aquatic quality and effects monitoring which will be used to inform adaptive management actions. This is consistent with views expressed by the Tlicho (see Section 6.1 Recommendations p. 55) on mitigation and monitoring. Adoption by the Board of EC's recommendations pertaining to wildlife may also contribute towards addressing some of the Tlicho Nation's concerns.

If you wish clarification on any aspect of this submission, please contact Sarah-Lacey McMillan at (867) 669-4724 or by email at sarah-lacey.mcmillan@ec.gc.ca

Sincerely,

On behalf of

Cheryl Baraniecki
Regional Director
Environmental Protection Operations
Prairie and Northern Region (PNR)

cc: Susanne Forbrich (Manager, Environmental Assessment and Marine Programs)
Carey Ogilvie (Head, Environmental Assessment-North)
EC NICO Mine Review Team