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VIA EMAIL

Chris Rose
Environmental Assessment Officer
Mackenzie Valley Environmental Impact Review Board
PO Box 2130
Yellowknife, NT X1A 2P6

RE: Undertakings from the Canadian Zinc Corporation Prairie Creek All Season Road Technical Sessions

Dear Mr. Rose,

Further to our letter dated June 30, 2016, the Canadian Northern Economic Development Agency's Northern Projects Management Office ("NPMO") is submitting the attached documents in response to technical session undertakings for the above noted project. Included are meeting notes in reference to undertaking number 15 and the Ecotype Mapping Report for Nahanni National Park Reserve in reference to undertaking number 10.

With regard to undertaking number two, a meeting summary has been reviewed by Parks Canada officials and provided to the proponent, Canadian Zinc Corporation for finalization. The Government of Canada understands that the Canadian Zinc Corporation will provide these notes to the Mackenzie Valley Environmental Impact Review Board's public registry in due course.

The Government of Canada looks forward to continued participation in this review.

Sincerely,

Adrian Paradis
Senior Project Manager
Northern Projects Management Office

Attachments: (1) Meeting summary – technical session undertaking no. 15
(2) Ecotype Mapping Report for Nahanni National Park Reserve –
technical session undertaking no. 10

cc. Chuck Hubert, Sr. Environmental Assessment Officer
Ruari Carthew, Sr. Environmental Assessment Officer

Undertaking #15

Parks Canada will provide a written description to CanZinc on its expectations regarding baseline wildlife data collection, effective long-term monitoring, and adaptive management – and when this information is needed (i.e. during EA, permitting, prior to operations, etc).

Preamble

Under the *Canada National Parks Act*, Parks Canada is responsible on behalf of the people of Canada for the protection and presentation of nationally significant examples of Canada's natural and cultural heritage and to foster public understanding, appreciation and enjoyment in ways that ensure their ecological and commemorative integrity for present and future generations.

The *Canada National Parks Act* states that "maintenance or restoration of ecological integrity, through the protection of natural resources and natural processes, shall be the first priority of the Minister when considering all aspects of the management of parks". According to the *Canada National Parks Act*, "ecological integrity" means, with respect to a park, a condition that is determined to be characteristic of its natural region and likely to persist, including abiotic components and the composition and abundance of native species and biological communities, rates of change and supporting processes. In other words, Parks Canada is tasked with maintaining all of the naturally occurring species and communities, and the processes that sustain them.

This submission describes our expectations regarding the: i) collection of baseline data related to wildlife and ii) associated monitoring and adaptive management.

1.0 Baseline Collection

Parks Canada's expectation is that baseline data on wildlife will be collected as outlined in the Terms of Reference (Sections 3.2.3, 5.1.4 and 5.1.6). The Terms of Reference for EA 1415-01 Section 3.2.3 point 3 lists impacts to Nahanni National Park Reserve as a key line of inquiry, Section 5.1.4 Species at Risk (including birds) and Section 5.1.6 Wildlife and Wildlife Habitat (including birds) requires the proponent to provide a description of wildlife species presence, distribution and abundance, habitat types including local and regional distribution and abundance, habitat or sites of special value or sensitivity, including species use and timing, and use of the project area by resident and migratory birds, in addition to other information.

Specifically, Parks Canada is requesting the collection of baseline data for the following:

1. Population characteristics and habitat use of the project area by forest bird communities, waterfowl, migratory birds and avian species at risk

- We define population characteristics as including species presence, distribution, relative abundance, and density estimates within each habitat type in the project area
- We define habitat use as including use of habitats for foraging, reproduction and rearing of offspring and that includes seasonality in their use.
- The project area is defined in the project Terms of Reference.
- Data describing population characteristics and habitat use of forest birds and avian SAR can be collected, simultaneously, through the use of automatic recording units, which can be deployed in the field and later retrieved, then transcribed and analyzed.

- Data for waterfowl can be collected through ground surveys at all ponds along the route and at water crossings, at least twice during the breeding period (early and late spring) to capture early and late migrant/nesters.
- Survey methodology must include the appropriate spatial distribution and seasonal timing for adequate representation of species and habitat types along the proposed alignment.
- Survey methods and overall sampling design must be developed in consultation with both Parks Canada and Environment and Climate Change Canada.
- Habitat suitability for black bears in the project area including foraging, denning and travel considerations.
 - Survey methodology must use recognized and standard methods
 - Survey methods and overall sampling design must be developed in consultation with Parks Canada
 - An explanation of how this information has been incorporated into the design and placement of work camps, road zoning (e.g., speed, no stopping, turnouts), quarries and other aspects of the project shall also be provided.
- Species presence for Collared Pika
 - Survey methodology must use recognized and standard methods
 - Survey methods and overall sampling design must be developed in consultation with Parks Canada

Parks Canada's preference would be for baseline data to be collected in the EA Phase to allow full examination of the potential for significant adverse effects on wildlife however, it is recognised that certain surveys are time sensitive and as a result would not be possible to undertake within the current field season.

Assessment at a local population level

The TOR indicates the geographic scope for Species at Risk and Wildlife and Wildlife Habitat (including birds) (Table 2, p 11) to be "Defined... as an area large enough to assess potential impacts at a **local population** level taking into consideration the seasonal movements, migratory movements, and lifecycle requirements of each species." Parks Canada has indicated in IR#31 that the assessment of impacts, as outlined in the TOR, must be at a local population level in sections 4.3, 4.4, 4.5. Effects at this level are important, and could be significant long before detection at a territorial level.

It is essential to have at least a general baseline of species in the project area; preferably population but at a minimum the species present (including seasonal movements, migratory movements, and lifecycle requirements) in the study area to understand (monitor) if the project could have an impact and adaptively manage. It is not clear at this time if additional baseline studies are required to undertake assessments at the local population level.

2.0 Monitoring and Adaptive Management

Northern Mountain Caribou

Parks Canada would like a commitment from CZN to a monitoring program for Northern Mountain Caribou. Monitoring for impacts to Northern Mountain Caribou must go beyond simply reporting largely anecdotal observations along the road. A systematic monitoring program must include annual aerial surveys to provide a population index and composition during rut, and possibly additional seasonal ungulate surveys. Track and scat surveys or the use of a camera trap design could also be implemented.

Parks Canada considers the potential impact on Northern Mountain Caribou to be significant. Potential impacts include, but are not necessarily limited to, avoidance of the road (resulting in fragmentation / loss of habitat effectiveness), noise disturbance, increase in predation risk, and direct mortality.

The proponent has contributed to baseline work on caribou, local knowledge has been solicited, and Parks Canada has invested significant funds and effort into aerial surveys and a collaring project. The sedentary nature of some of these animals suggests a small resident population may exist in close proximity to the road, and the TOR for this assessment process indicated that significance of effects are to be assessed on a local population level.

At this time, Parks Canada considers the baseline information on caribou to be adequate for the assessment, however, a commitment to a comprehensive monitoring program within the permitting phase of this proposal is required.

General Monitoring

The draft Wildlife Mitigation and Monitoring Plan (2012) states that it is based on the principle of adaptive management. An adaptive management approach requires baseline information and on-going monitoring to understand what impacts may be occurring, and strategies to address any impacts. Without baseline information and monitoring, there is no way of knowing if mitigations are working or if there is simply an assumption of no impact.

The final wildlife mitigation and monitoring plan needs to demonstrate how monitoring data will be incorporated into adaptive management, *i.e.*, define thresholds and actions.