

Review Comment Table (on Developer's Proposed Terms of Reference)EA1415-01

Comment Summary

CanZinc Corporation (Proponent)				
ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Response
1	General File	Comment (doc) Supporting letter regarding airstrip Recommendation		
Dehcho First Nations: Dahti Tsetso				
11	General File	Comment (doc) (Submitted after Due Date) DFN Letter regarding CdN Zinc all reason road EA - June 19, 2014 Recommendation		
1	DFN comments on Draft Developer's Proposed Terms of Reference - Prairie Creek All Season Road Project	Comment (Submitted after Due Date) Prepared June 19th, 2014 Recommendation DRAFT ONLY		
2	On Page 10, CZN lists the scope of development, this list does not include gravel quarries/borrow pits.	Comment (Submitted after Due Date) Does CZN intend to develop borrow pits or quarries to procure gravel for the project? If not, where does CZN intend to get the gravel required for the road. Recommendation If CZN is intending to develop borrow pits or quarries, this should be included in the scope of the development.	July 7: We intend to develop borrow pits, so we agree.	Borrow pits have been included in the scope see Section 5.1.1 and 7.3.2 in the Draft ToR
3	On Page 11, CZN asserts that an existing road already has an all season road bed from Km 0 to Km 39 and historical land use permit N80F249 provided for all-season use of that road section.	Comment (Submitted after Due Date) Is CZN asserting that the all season road from Km 0 to Km 39 will not be included in the Environmental Assessment? Recommendation CZN clarify what portion of the road will be included in the EA and if any portion of the road is not included clarify the rationale.	July 7: We are not opposed to the whole road being part of the scope of development. However, the scope of assessment must reflect the fact that an all season road bed exists to Cat Camp. Consistent with EA08-09, no purpose would be served assessing the construction impacts of already built structures, or those assessed in EA08-09. We would expect new structures, and any changes to creek bed, to be assessed.	n/a

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4	Pg 12, Section 3.2.3: Key Lines of Inquiry	<p>Comment (Submitted after Due Date) DFN recommends that CZN provides a rigorous assessment within the EA of the following: Geotechnical work of karst areas, permafrost, landslide and erosion potential Impacts on wildlife species including assessment of summer wildlife surveys for boreal caribou (and potentially other large mammals) Fish and fish habitat from creek crossings and crossing structures Invasive plant species Spill risk assessment and spill response Impacts to Tetcela and Bluefish creek wetland valley</p> <p>Recommendation See column B.</p>	<p>July 7: We propose to maintain our indicated key lines of inquiry. Terrain assessment for karst was completed in EA08-08, and further assessment is not proposed because it is equally relevant. Wildlife surveys are included, as is fish and fish habitat consideration. We agree with consideration of invasive plant potential, but not further survey. We agree with spills assessment. We agree to assess impacts on wetlands, but not their potential to host fish proximal to the road because habitat value is low.</p>	<p>CanZinc agrees with recommendations from DFN and issues have been incorporated into Draft ToR accordingly.</p>
5	Pg 8, Section 1.3: CZN states that "The footprint of the all season road will be less than the winter road...".	<p>Comment (Submitted after Due Date) DFN agrees that the width of the all-season road will likely be less than a winter road. However, the overall footprint of an all-season road is greater since a winter road will melt and disappears in the summer.</p> <p>Recommendation DFN recommends that CZN revise this statement.</p>	<p>July 7: We believe the statement is correct as is, as it refers to the cleared, disturbed area.</p>	<p>A discussion about the change in footprint and the permanence of the all season road relative to the winter road has been included see Section 6.1 in the Draft ToR</p>

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6	Page 13, CZN states: Fish and aquatic habitat “ within 1 km of the road downstream and all of the habitable portion of the stream upstream because any loss of habitat or impediment to migration is unlikely to have any practical effect.	Comment (Submitted after Due Date) DFN argues that fish studies may extend further downstream than 1 km, to the reasonable limit to which dilution of sediment or spill might occur. Recommendation DFN recommends that CZN revise this statement.	July 7: We do not think a change is required. In reality, studies are conducted in proximity to the crossing, and are used to guide the selection of the appropriate crossing structure, design and construction.	The minimum geographic scope for fish and aquatics has been set to the surface watersheds which are intersected by the Project see the minimum geographic scope table in Section 3.3
7	Page 13, Temporal Scope of Assessment	Comment (Submitted after Due Date) CZN has not clarified the extent of the mine life relative to this application. Recommendation DFN recommends that CZN revise this statement.	July 7: The Mine life was specified in EA08-09, and includes closure and reclamation.	The temporal scope includes construction, operation, closure and post-closure phases
8	Page 18, CZN lists the project components and activities	Comment (Submitted after Due Date) DFN recommends that CZN add a Spill Response Plan. Recommendation See column B.	July 7: Review of the existing plan is included.	the key lines of inquiry for accident and malfunctions (Section 7.2.2) addresses spills.
9	Pg. 19-23: Assessment of Environmental Impacts and Cumulative Effects	Comment (Submitted after Due Date) DFN recommends that impact assessment be broken down by development, as the impacts of each development are quite different. Phase 1 of the road, Phase 2 of the road, airstrip, quarries (if applicable) and ferry. Recommendation See column B.	July 7: We agree with a separation based on Phases 1 and 2.	A description of how the phases will be addressed is presented in Section 3.1.2 in the Draft ToR
10	Page 20-21: CZN lists Water quality and quantity	Comment (Submitted after Due Date) DFN recommends that if CZN proposes to use culverts along the proposed development, that CZN addresses the potential problem of erosion and hanging culverts. Recommendation See column B.	July 7: Agreed.	Erosion and sediment potential is addressed in Section 7.3.5 in the Draft ToR

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Fisheries and Oceans Canada: Kelly Eggers				
1	Section 5.1.4 “ Biophysical Information Requirements - Fish and Aquatic Habitat	Comment The information requirements listed appear to refer only to the watercourse crossings, but these information requirements are required to assess potential impacts to fish and fish habitat from the watercourse realignments in the Phase I portion of the development, and the watercourse crossings in Phase II. Recommendation These information requirements should apply to both watercourse realignments and watercourse crossings.	June 30: Answered below in Gov of Canada section.	Both stream crossings and alignments have been identified in Section 5.1.3 in the Draft ToR
2	Section 7.2.8 “ Key components of Interest “ Fish and Aquatic Habitat	Comment This section lists “ <i>effects of proposed watercourse crossings and temporary vehicle crossing methods</i> ” but should then also include the effects of the proposed channel realignments If blasting near waterbodies/watercourses is required for road construction, effects of blasting on fish and fish habitat should also be considered Recommendation Include effects of the proposed channel realignments, and effects of blasting on fish and fish habitat if applicable.	June 30: Answered below in Gov of Canada section.	The effects of water crossings, re-alignments, and blasting have been raised in Section 7.3.5 and 7.3.7 in the Draft ToR
3	Section 10 “ Cumulative Effects Assessment	Comment Cumulative effects on fish and aquatic habitat are not listed in this section. Recommendation Cumulative effects on fish and aquatic habitat should be considered.	June 30: Answered below in Gov of Canada section.	Cumulative effects will be assessed for all key lines of inquiry and subjects of note, as stated in Section 10 of the Draft ToR.

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GNWT - Lands: Shafic Khouri				
16	General File	Comment (doc) 06-20-14 - GNWT Cover Letter to MVEIRB - Comments, Recommendations and Attachments Recommendation		
17	General File	Comment (doc) (Submitted after Due Date) 06-30-14 - GNWT Letter to MVEIRB - Request to Review NDDDB TK Assessment Recommendation		
2	Topic: Impacts to Archaeological Sites	<p>Comment CZN states that the assessment of impacts to cultural resources is not needed for this EA: "Potential impacts to cultural resources will not be assessed in this EA because two field investigations were completed for EA0809-002 involving investigations at those locations most likely to host cultural resources, and none were found. The investigation locations were defined by elders of the Naha Dehe Dene Band during consultations in the community. An elder and other Band members also accompanied investigators in the field. Further, the LUP's for the winter road issued by the MVLWB and Parks Canada subsequent to the EA contain conditions for the protection of cultural resources, should they be found. The same conditions would likely be included in LUP's for an all season road. As such, the appropriate mitigation is already and will be in place, and further assessment is not warranted and is unlikely to result in additional requirements[.]" (p. 11). The project description in the TOR indicates there will be several areas of new footprint added to the current project that were not assessed by the field studies noted above, including a new airstrip, expansion of the Tetcela Transfer Facility (TTF), and potential development of an unknown number of borrow sources and access to such borrow sources. As such, it is important that the TOR require assessment of potential impacts to archaeological sites.</p> <p>Recommendation GNWT recommends the TOR require an assessment of potential impacts to archaeological sites.</p>	<p>June 30: We disagree. Regarding new footprint, a new airstrip location would be either west of the Ram Plateau or on the western edge of the plateau, in a relatively flat area away from creeks. Any proposed re-alignments would be in this same area i.e. distant from the community of Nahanni Butte. Expansion of the Tetcela Transfer Facility would be approximately doubling the size in a broadly flat area of muskeg not proximal to creeks or passes. Borrow sources were identified previously. Additional sources will be sought, but have currently not been located. The new collective footprint of the project will be relatively minor in terms of area, and will represent a low risk of hosting heritage resources. CZN previously undertook two AIA's in what were considered to be high risk areas based on TK and archaeological desk review. Two site investigation campaigns, both involving elders from Nahanni Butte, failed to identify any heritage resources. It is highly unlikely that any further assessment in lower risk areas will. Therefore, further assessment is not justified from a technical or economic viewpoint, and would be contrary to the Board's stated objective of focussing the EA on those issues requiring further assessment.</p>	<p>Potential impacts to archaeological sites have been raised in Section 7.3.10 of the Draft ToR</p>

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3	Topic: Construction Crew of All-season Road, Expanded Transfer Facility and Airstrip	<p>Comment . Section 6.1 lists a number of project components and activities to be described in the Developer's Assessment Report (DAR), including "camps, staging areas, laydown areas, access roads and other support facilities". . Measureable changes in population and demographics can have adverse effects on community life and community services. This is dependent on the extent of interactions between local and temporary populations.</p> <p>Recommendation GNWT recommends the TOR require the following information: approximate number of individuals in each phase's crew; rotation schedule of the crews; location of camps (new or existing, temporary or permanent); employee alcohol and drug policy; if there will be security personnel at the sites; anticipated level of access that crews will have to surrounding communities; and whether it is expected that public access to the new all season road will have an impact on the level of policing service demands (e.g., does CZN anticipate an increase in traffic or need for patrolling?)</p>	<p>June 30: OK, but the recommendation does not really reflect the comment. In terms of community impacts, there will not be a great difference between winter road and all season road construction and operation. Note that outside of winter, the community would have limited access to the road and vice versa because of required Liard or South Nahanni River crossings.</p>	<p>GNWT's comments were incorporated into Section 7.3.11 of the Draft ToR</p>
4	Topic: Impact on the Community	<p>Comment Section 7.2.12 states that the list of potential Project effects on the community will be described in the DAR. However, the list of topics to be considered does not include any potential adverse Project effects on the community.</p> <p>Recommendation GNWT recommends the TOR require the following information: potential negative effects of the Project (e.g., impact on crime rate, substance abuse, impact on family life associated with rotational work schedule, etc.); and potential impact of the Project on demand for policing services.</p>	<p>June 30: We accept the former in terms of crime and substance abuse, but not rotational work issues since these were already addressed in the Mine and winter road EA and are over-arching. Impacts on policing are not necessary as road contractors will not be able to access the community outside of winter, and will not be permitted to do so. The all season road will have no more affect on negative activities than a winter road does, in fact it could be argued less since there will be much less activity in winter when access to the community is possible.</p>	<p>GNWT's comments were incorporated into Section 7.3.11 of the Draft ToR</p>

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5	Topic: Geographic Scope of Assessment “ Employment and Business Opportunities	<p>Comment The TOR state in Section 3.3 that, "The geographic scope for each valued component, and the rationale for it, is as follows: .Employment and benefits to the community - the Dehcho region which hosts the main communities gaining employment and receiving benefits." GNWT recommends a consistent approach be taken for the Project EA, as was done with the terms of reference and DAR for EA0809-002, by including the assessment of the entire Mackenzie Valley with focus on the Dehcho region.</p> <p>Recommendation GNWT recommends the TOR require the same geographic scope of assessment for employment and business opportunities that was used in the terms of reference for EA0809-002. Recommended wording is: The developer will assess the potential impacts of the Prairie Creek All-Season Road and Airstrip Project on the economy of the Mackenzie Valley, with a focus on the Dehcho region and each potentially-affected community.</p>	<p>June 30: OK, but delete "and each potentially affected community".</p>	<p>see Section 3.3, Table 2. The geographic scope matches the geographic scope used in EA0809-002 for impacts to the human environment</p>
6	Topic: Section 1.3 “ Winter Road and All Season Road Footprint Differences	<p>Comment . Section 1.3 of the TOR states that the all season road will generally follow the winter road alignment, with minor alterations of the existing alignment in some places. CZN suggests the footprint of the all season road will be less than the winter road, although there will be additional clearing required for the proposed airstrip and expansion of the TTF. . Borrow sources and any access roads to these sources required for construction of the all season road have not been considered in the footprint difference between the winter and all season road.</p> <p>Recommendation GNWT recommends the TOR ensure CZN includes estimates of the area impacted by borrow sources and any access roads required for construction of the all season road when calculating differences in footprint between the winter road and all season access road.</p>	<p>June 30: OK</p>	<p>Borrow sources have been included as a project component in Section 6.1. All project components will be used to assess the differences between the winter road and the all season road</p>

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7	Topic: Section 3.2.2 “ Effects Assessments “ Valued Components	<p>Comment CZN has proposed to exclude rare plants as a valued component for the assessment of impacts to vegetation because rare plant surveys were completed in support of EA0809-002. GNWT questions this rationale because new areas of disturbance will be required for re-alignment of certain sections of the access road, borrow sources and their associated access roads, airstrip, and expansion of the Tetcela Transfer Facility.</p> <p>Recommendation GNWT recommends the TOR require rare plants to be included as a valued component, and further surveys for rare plants should be conducted in areas where new disturbance is required that were not previously included in the assessment of the winter road alignment for EA0809-002.</p>	<p>June 30: This recommendation is illogical. The rare plant survey conducted selected sites for investigation to be representative of the entire road. None were found. The new footprint of the proposed project will be very small compared to the winter road footprint that will exist. The previous rare plant survey will be just as relevant to the all season project as the winter road. If there were any indication of the exisistence of rare plants in the previous survey, an additional survey might make some sense, but there wasn't. Therefore, further assessment is not justified from a technical or economic viewpoint, and would be contrary to the Board's stated objective of focussing the EA on those issues requiring further assessment.</p>	<p>Rare plants have been included in Section 5.1.7 in the Draft ToR.</p> <p>As stated in Section 1.5, EA1415-01 is a new and separate EA, and as required under Section 115(2), material from past EAs will be considered.</p> <p>Section 1 of the Draft ToR provides a summary of the Review Board's objective.</p>
8	Topic: Section 5.1.5 “ Wildlife and Wildlife Habitat	<p>Comment Section 3.2.2 of the TOR includes species at risk and species of concern in the list of valued components, but they are not included in Section 5.1.5, nor is there a stand-alone section for species at risk and species of concern under Section 5 - Description of the Existing Environment and Baseline Conditions. Species at risk and species of concern are covered under a separate heading under Section 7 - Assessment of Environmental Impacts and Cumulative Effects. Species at risk should be either integrated with wildlife and wildlife habitat throughout the TOR and DAR, or addressed in a separate section under Section 5, to be consistent with Section 3 and Section 7.</p> <p>Recommendation GNWT recommends baseline information about species at risk and species of concern should be described under a separate heading in Section 5 of the TOR, in order to maintain consistency with Section 3 and Section 7.</p>	<p>June 30: OK</p>	<p>agreed, the Draft ToR is organized as such.</p>

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9	Topic: Section 5.1.5 “ Wildlife and Wildlife Habitat	<p>Comment The TOR identifies caribou as a valued component in several sections. It should be noted that there are two ecotypes of woodland caribou, northern mountain and boreal ecotypes, with ranges that overlap portions of the proposed all season road and airstrip. Given that these two ecotypes of woodland caribou exhibit very different behaviours and seasonal distribution patterns and that they have different designations on Schedule 1 of the federal Species at Risk Act (boreal woodland caribou - Threatened; northern mountain woodland caribou - Special Concern), the TOR should provide separate assessments of potential impacts to boreal versus northern mountain woodland caribou.</p> <p>Recommendation GNWT recommends the TOR: a) Distinguish between potential impacts to boreal woodland caribou and northern mountain woodland caribou; and b) Require CZN to evaluate Project footprint within the boreal caribou range in the context of habitat disturbance definitions and thresholds identified in the national Recovery Strategy for the Woodland Caribou, Boreal population (http://www.registrelep-sararegistry.gc.ca/virtual_sara/files/plans/rs%5Fcaribou%5Fboreal%5Fcaribou%5F0912%5Fe1%2Epdf).</p>	<p>June 30: a) We agree. b) Boreal caribou range primarily lies east of the Front Range, although some animals may occasionally move through Grainger Gap. No changes to the road or additional footprint is proposed east of the NNPR. Therefore we disagree in terms of habitat disturbance, however a case can be made for the potential for sensory disturbance to boreal caribou in summer.</p>	<p>The distinct caribou species have been identified in Section 5.1.4 of the Draft ToR</p>
10	Topic: Section 5.1.5 “ Wildlife and Wildlife Habitat	<p>Comment GNWT notes wood bison are not mentioned as a valued component for wildlife. Given that wood bison are a federally-listed species at risk and that there is potential for bison mortality due to collisions with vehicles, this species should be included as a valued component in the TOR.</p> <p>Recommendation GNWT recommends the TOR require CZN to include wood bison as a valued component.</p>	<p>June 30: OK</p>	<p>Wood bison has been listed as a valued component under wildlife and wildlife habitat in Section 3.2.2 of the Draft ToR.</p>

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11	Topic: Section 5.1.5 “Wildlife and Wildlife Habitat	<p>Comment The last bullet on page 15 relates only to the all-season road activities and does not mention activities associated with the airstrip, which is the main change in Project footprint in Phase 1 of development.</p> <p>Recommendation GNWT recommends the last bullet on page 15 be re-written as follows: æmigratory patterns, routes, and timing in relation to all season road route alternatives, construction activities, and operations, as well as in relation to construction activities and operations of the airstrip. •</p>	<p>June 30: OK, except we discuss scope of assessment regarding the airstrip separately.</p>	<p>GNWT's comments have been incorporated into Section 5.1.6 of the Draft ToR.</p>
12	Topic: Section 6.4 “Existing Management Plans	<p>Comment . Section 6.4 of the TOR states that the adequacy of existing and already required management and monitoring plans, listed in land use permits MV2012F007 and Parks2012-L001, will be assessed with respect to their adequacy for detecting and preventing potential significant adverse impacts from the Project. . GNWT notes that a Wildlife Mitigation and Monitoring Plan is required under Parks2012-L001. . GNWT notes that a draft Wildlife Mitigation and Monitoring Plan for the mine and winter access road was filed with documents supporting water licence MV2008L2-002 (http://www.mvlwb.ca/Boards/mv/Registry/2008/MV2008L2-0002/MV2008L2-0002/Appendix K Draft WMMP.pdf), but is not aware of whether an updated version of this plan was submitted to fulfill the requirements for Parks2012-L001. . The draft Wildlife Mitigation and Monitoring Plan for the Project should be updated to capture the construction and operation of the all-season road, the proposed airstrip and the expansion of the Tetcela Transfer Facility; and should be inclusive of both portions of the road - those within and outside the boundary of Nahanni National Park Reserve.</p> <p>Recommendation GNWT recommends: a) Section 6.4 of the TOR be amended to include an assessment of adequacy for the existing draft Wildlife Mitigation and Monitoring Plan; and to require a description of any proposed amendments to this plan needed to address the construction and operation of the Project including the all-season road, the proposed airstrip and the expansion of the Tetcela Transfer Facility. b) CZN consult the Department of Environment and Natural Resources draft Wildlife and Wildlife Habitat Protection Plan and Wildlife Effects Monitoring Program Guidelines (attached to the PDF version of this GNWT submission) when assessing the adequacy and need for amendments to its draft Wildlife Mitigation and Monitoring Plan.</p>	<p>June 30: OK, but we will need to maintain the appropriate WMMP for the winter road, and consider separately how the plan should change for Phase 1 of the all season road, and then Phase 2, so that the plan is always specific to the project in operation.</p>	<p>GNTW comment (a) has been incorporated into Section 6.5 of the Draft ToR.</p>

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13	Topic: Section 7.2.5 “Noise	<p>Comment Section 7.2.5 does not explicitly include noise impacts associated with construction and operation of the proposed airstrip.</p> <p>Recommendation GNWT recommends Section 7.2.5 of the TOR explicitly include potential impacts to wildlife associated with noise from construction and operation of the proposed airstrip.</p>	<p>June 30: OK, except we discuss scope of assessment regarding the airstrip separately.</p>	<p>The airstrip has been mentioned explicitly in Section 7.3.4 of the Draft ToR.</p>
14	Topic: Section 7.2.7 “Species at Risk and Species of Concern	<p>Comment There is inconsistency between the list of topics that will be considered for species at risk and species of concern, and topics that will be considered for wildlife and wildlife habitat.</p> <p>Recommendation GNWT recommends the list of topics under Section 7.2.7 (Species at risk and species of concern) be expanded to include those listed in Section 7.2.9 (Wildlife and wildlife habitat) and vice versa, in order to ensure the impact assessment for species at risk and species of concern receives the same level of detail as that for wildlife and wildlife habitat.</p>	<p>June 30: We agree in general, but many of the topics are species-specific so the topics lists will not be the same.</p>	<p>agreed and reflected in the Draft ToR.</p>
15	Topic: Section 7.2.13“Impacts on Existing Transportation Infrastructure	<p>Comment CZN states it will only list the potential effects of Project on the water crossing of the Liard River (i.e., barges) but does not mention the potential effects on the Nahanni Butte Access Road or Highway 7.</p> <p>Recommendation GNWT recommends: a) The TOR require more information pertaining to traffic volumes and weights, and b) CZN consult with the Department of Transportation on the above anticipated use.</p>	<p>June 30: We agree regarding the Nahanni Butte Access Road which would be used in summer. We don't agree regarding Highway 7 since the traffic will be the same in summer as for the winter road. This is in terms of EA scoping, however CZN has a MOU with DOT and intends to continue the on-going dialogue independent of the EA.</p>	<p>Nahanni Butte access road and Liard Highway have been included, see Section 7.3.12 of the Draft ToR.</p>

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Gov of Canada: David Alexander				
1	Environment Canada ("EC") EC-1 2.4 Summary Materials	<p>Comment This section identifies a list of summary materials that will be required in the Developer's Assessment Report (DAR). Identified, is a commitments table listing all mitigation measures the developer will undertake, including but not limited to those described in the project application.</p> <p>Recommendation EC recommends the Proponent identify commitments and mitigation measures from EA0809-002 that also apply to the proposed development being assessed during this Environmental Assessment (EA); this should include items that were not assessed in EA0809-002. this would ensure consistency and help to narrow the scope of this EA.</p>	<p>June 30: We agree in principle, however we're not sure how this will narrow the scope since that will already have been determined.</p>	<p>The ToR includes requirement for CanZinc to include a listing of commitments from EA0809-002. See Appendix C in the Draft ToR.</p>
2	EC-2 6.4 Existing Management Plans	<p>Comment This section identifies that, as part of the EA, the adequacy of existing and already required management plans and monitoring programs with respect to detecting and preventing potential significant adverse impacts from developing will be assessed.</p> <p>Recommendation This section should clearly list and summarize the intent of required management plans and monitoring programs. The Proponent should also identify where additional management plans and monitoring programs may be necessary for the proposed development being assessed.</p>	<p>June 30: Agreed, but perhaps this should read "if and where" rather than just "where".</p>	<p>Existing management plans are the adequacy are addressed in Section 6.5 of the Draft ToR.</p>
3	EC-3 9 Potential Accidents and Malfunctions	<p>Comment For each project phase, accidents and risks to consider include: - concentrate spills, fuel spills, and resulting contamination of soil and water; - explosion and/or fire; and -transportationaccidents (air,land,water).</p> <p>Recommendation EC recommends consideration also be given to wildlife; such as, Species at Risk and migratory birds.</p>	<p>June 30: If the commenter means consider potential impacts to wildlife from a particular accident or risk, then yes, we would agree.</p>	<p>The effect of potential accidents and malfunctions, including spills, have been identified as a key line of inquiry in Section 7.2.2 of the Draft ToR. The effects to fish and wildlife (including birds) will be considered in this key line of inquiry.</p>

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4	EC-4 Species at Risk - 7.2.7 Species at risk and species of concern	<p>Comment The following comments are pursuant to the Species at Risk Act (SARA). 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.</p> <p>Recommendation As a matter of best practice, EC 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. EC recommends that the Terms of Reference should also request that the developer outline strategies for both mitigation and monitoring of potential adverse effects to Species at Risk and those species designed as at risk by COSEWIC.</p>	<p>June 30: We agree in principle, bearing in mind the differences between the already permitted winter road and the proposed project. We would suggest that the commenter's intent would likely best be served by review of the WMMP.</p>	<p>Mitigation and monitoring plans are required in 6.5, which also asks that existing management plans be updated for all season use.</p>
5	EC-5 Migratory Birds - Section 3.2.2 Effects Assessments - Valued Components Section 5.1.5 Wildlife and wildlife habitat Section 7.2.5 Noise Section 10 Cumulative Effects Assessment	<p>Comment The Terms of Reference includes "wildlife" as a subsection heading and as sub-heading throughout the document.</p> <p>Recommendation EC recommends that it should be noted that wildlife includes resident and migratory bird species. EC notes that in Section 5.1.5 "Including birds" is provided as a footnote and in Section 7.2.5 the proponents uses "fish, birds and wildlife" while in Section 3.2.2 and 10 birds are not mentioned. Consistency throughout the document would provide clarity.</p>	<p>June 30: OK</p>	<p>Birds explicitly mentioned in Section 3..2.2</p>
6	EC-6 Migratory Birds - Section 3.2.2 Effects Assessments - Valued Components	<p>Comment Although this section is brief, EC provides the following recommendation for the developer's consideration when preparing the DAR.</p> <p>Recommendation Although a list of considerations is not provided in this section, EC recommends that the DAR should include discussion on the following: -Attraction of predators of birds and bird eggs to the project, or the provision of nesting or denning habitat for predators and scavengers; - Potential mortality from collisions with temporary or permanent tall structures or wires; and -Potential mortality from vehicle collisions.</p>	<p>June 30: OK</p>	<p>EC's recommendations have been incorporated into Section 7.3.8 of the Draft ToR.</p>

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7	Fisheries and Oceans Canada ("DFO") DFO-1 Section 5.1.4 " Biophysical Information Requirements - Fish and Aquatic Habitat	Comment The information requirements listed appear to refer only to the watercourse crossings, but these information requirements are required to assess potential impacts to fish and fish habitat from the watercourse relocations in the Phase I portion of the development, and the watercourse crossings in Phase II. Recommendation None	June 30: Agreed.	Watercourse crossing and realignments will be assessed, see Section 7.3.7 of the Draft ToR.
8	DFO-2 Section 7.2.8 " Key components of Interest "Fish and Aquatic Habitat	Comment None Recommendation 1.This section lists effects of proposed watercourse crossings and temporary vehicle crossing methods but should then also include the effects of the proposed channel realignments 2. If blasting near waterbodies/watercourses is required for road construction, effects of blasting on fish and fish habitat should also be considered	June 30: Agreed, to the extent they relate to the all season road project (note, blasting to install the bridge crossing on Drum Creek was previously assessed).	Watercourse crossing and realignments will be assessed, as well as the effects of blasting. See Section 7.3.7 of the Draft ToR.
9	DFO-3 Section 10 " Cumulative Effects Assessment	Comment None Recommendation Cumulative effects on fish and aquatic habitat should be	June 30: We will need to consider the defintion of "cumulative effect", since we currently don't see a potential cumulative effect for fish and aquatic habitat.	Cumulative effects will be assessed for all key lines of inquiry and subjects of note, as stated in Section 10 of the Draft ToR
10	Parks Canada Agency ("PCA") PCA comments are contained in the attaced letter (PDF document) titled "Parks Canada Agency Comments to MVEIRB on CZN proposed ToR"	Comment (doc) See attached letter Recommendation See attached letter		n/a

ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Response
11	Parks Canada Agency ("PCA") PCA-1 General comments	<p>Comment The following are some overarching Parks Canada comments on issues found throughout the Draft Proponent's Terms of Reference. • The proponent indicates that a second air strip will be built on the Ram Plateau near the road. The Canada National Parks Act (the Act) restricts the land uses which are permissible in a national park. In order to provide authority to permit the Prairie Creek access road, a special amendment to the Act was made when the Park was expanded (Section 41.1). This amendment permits the access road, sites of storage and other facilities connected with the road. Therefore, as the airstrip is not a facility connected with the road Parks Canada cannot authorise it under the Act. Parks Canada therefore recommends that this component of the proposal be scoped out of the assessment. • Parks Canada expects the proponent's assessment report for this proposal to be a standalone document, and not just an assessment of those impacts which are over and above the impacts of the winter road. As such, relevant content from the assessment of the winter road should be included in the Developer's Assessment Report (DAR) for this proposal. • In accordance with the Mackenzie Valley Resource Management Act, the Canadian National Parks Act and associated policies, Parks Canada expects the assessment of impacts to cultural resources (also known as heritage resources) be included in the scope of assessment. • In accordance with the National Parks Building Regulations Parks Canada expects the assessment to provide a detailed description of any modifications required to the Tetcela Transfer Facility (TTF) for all season road use including: designs for any new or modified physical structures; details of operational use; and decommissioning. 2.1 Specific comments on Proponent's D</p> <p>Recommendation None</p>	<p>June 30: CZN's position is that the proposed airstrips are facilities connected with the road, and therefore can be authorized by Parks Canada. We will provide details under separate cover.Regarding cultural resources, see our comments above to GNWT. In Parks Canada's submission, they recommend an archaeological overview assessment, consisting of review of listed sites, consideration of TK, aboriginal engagement, and identifying high risk areas for a subsequent AIA. This is exactly the process CZN adopted in the previous EA. Despite no sites being listed, two AIA's were completed, and no evidence of cultural resources was found. Details of the TTF expansion will be provided.</p>	<p>see Section 3 of the Draft ToR for consideration of an airstrip and assessment of different phases</p> <p>see Section 5.2.3 for cultural resource</p> <p>see Section 6 for project components and design considerations</p>

ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Response
12	PCA-2 Section 1.1 page 7	<p>Comment Due to the phased approach of this proposal, Parks Canada would like to better understand the likelihood of phase one of the project going ahead without phase two, which would result in the storage of a large amount of concentrate at the TTF within NNPR.</p> <p>Recommendation Parks Canada recommends that the proponent outline the economic feasibility of the proposal including what specific conditions need to be in place for both phases of the project to go forward.</p>	<p>June 30: We have been clear that the proposed development would occur in stages, starting with the winter road, then the Phase 1 all season road development, and ultimately the Phase development. Therefore, Phase 1 could go ahead without Phase 2, at least for a period of time. We were also clear that because of the expected cost of Phase 2, whether we proceed with that phase is dependent on economics at the time (increased revenue from getting concentrates to market sooner verses the cost of the road). However, in our opinion, consideration of economic feasibility has no bearing on EA scoping and should not be included. Financial considerations are only relevant to CZN's ability to restore the road after closure, which is a security consideration.</p>	<p>The consideration of alternatives includes a cost-benefit analysis. See Section 3.5 and 6 of the Draft ToR</p>
13	PCA-3 Section 1.1, page 7, Section 3.2.2, page 11	<p>Comment The proponent indicates that the road bed from the mine site (km 0) to cat camp (km 39) is already of all season quality. Parks Canada would like to clarify this statement with the following information: • The boundary of NNPR starts at km 17 when moving east on the road from the mine site. • The right of way from km 24-33 is currently not permitted as an all season road, however, all season use can be approved by the Superintendent of NNPR subject to plans and designs outlined in Land Use Permit Parks 2012_L001. Inspections found many sections of the old road no longer exist along the steep talus slopes in this area. • The old right of way between km 33 and Cat Camp (km 39) poses many engineering challenges for an all season road as a result of the dynamic nature of the braided creek channel and numerous crossings over fish habitat. • Parks Canada expects that many significant sections of the right of way between km 24 and 39 will need significant construction and engineering for all season use.</p> <p>Recommendation None</p>	<p>June 30: For further clarification, Km 0 to 39 WAS previously permitted for all season use. However, Km 24-39 cannot currently be used all season because of creek crossings. Sections of the old road do need maintenance, but this can readily be completed. The engineering challenges are currently being assessed, but we would not consider the expected works to be 'difficult'.</p>	<p>n/a</p>

ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Response
14	PCA-4 Section 1.1, page 7, Section 1.3, page 9, Section 3.1, page 10, Section 3.2.3, page 12, Section 6.1, page 17	<p>Comment The proponent indicates that they intend to build a second airstrip on the Ram Plateau near the road. The Canada National Parks Act (the Act) provides that no public lands or right or interest in public lands within a national park may be disposed of except as provided by the Act, and further restricts the land uses which are permissible in a national park. In order to provide authority to permit the Prairie Creek access road, a special amendment to the Act was made when the Park was expanded (Section 41.1). This amendment allows for the construction of an access road, sites of storage and other facilities connected with the road. Parks Canada can therefore not authorize the proposed airstrip under the Act.</p> <p>Recommendation Parks Canada recommends that this component of the proposal be scoped out of the assessment.</p>	June 30: As explained in our submission under separate cover, we disagree.	The Review Board has commented on the consideration of an airstrip, inside and outside of the Park in Section 3.1.1. in the Draft ToR.
15	PCA-5 Section 3.1, page 10	<p>Comment The document must be consistent in the use of the terms “all season road” and “all weather road”</p> <p>Recommendation None</p>	June 30: OK	agreed and reflected in the Draft ToR.
16	PCA-6 Section 3.2.2, page 11	<p>Comment The proponent has indicated that they will not consider impacts on rare plants as they have already completed surveys for EA08-09. Parks Canada would like to outline that the only survey done on rare plants for the EA08-09 was in the Polje bypass area of the road. Furthermore, road ecology literature demonstrates the potential impacts of an all season road to be much different than impacts from the winter road. Summer construction and operation of the road could damage or destroy rare plants. Endemic plant species, rare species and unique genetic composition are possible, perhaps probable, because the karst area has not been glaciated for at least 200 000 to 250 000 years . If rare plant populations are impacted along the road, the survival of the populations in the park may be impacted.</p> <p>Recommendation Parks Canada recommends that impacts to rare plants be included in the assessment.</p>	June 30: The Parks Canada comment is innacurate. A review of the rare plant study report shows that intensive survey was completed from Km 0 to approximately Km 24, and then four other sites in the park were visited in representative areas across the Ram Plateau and up to Wolverine Pass, the park boundary. An additional site was investigated near Grainger Gap. The survey was completed over 2 days.A total of 340 plant observations representing 193 species and 44 families of vascular plants were documented during the survey. No rare plants were found. It might be true that potential impacts from an all season road are much different from a winter road, but that doesn't change the fact that the previous rare plant survey was extensive, and is equally suitable for considering the potential for impacts from either type of road.Therefore, further field surveys of rare plants are not justified, and assessment of impacts of the all season road on rare plants is not warranted since none were found.	Rare plants have been included in Section 5.1.7 and 7.3.9.

ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Response
17	PCA-7 Section 3.2.2, page 11, Section 7.2.14, page 23	<p>Comment The proponent has outlined that potential impacts to cultural resources will not be assessed because two field investigations were completed for EA08-09. Parks Canada does not consider these investigations to be adequate for the purpose of assessing an all season road and recommends that the assessment include potential impacts on cultural resources. The following outlines what will be required with respect to assessing impacts to cultural resources: To date, there has not been an overall archaeological survey done in this area of Nahanni National Park Reserve, except for testing and a helicopter flyover at two locations related to the Prairie Creek Mine winter road . There is potential to encounter surface and subsurface heritage resources and landscape features as a result of the all season road proposal. In order to ensure that there is no impact on archaeological resources associated with the road construction, resource exploitation (such as gravel extraction) and other associated activities (such as work camp locations, access roads, right of way, bridge crossings) an archaeological overview assessment followed by an archaeological impact assessment is required to determine the potential impact to heritage resources. The first step is to conduct an archaeological overview assessment to determine whether an archaeological impact assessment is required. The archaeological overview assessment involves:</p> <ul style="list-style-type: none">• a review of archaeological work completed in the area including a list of archaeological sites recorded within 1km of the proposed road to be obtained from the responsible federal and territorial authority;• a review of traditional knowledge and place names associated with the area including consultation with the local First Nation Community (Nahanni Butte); and• identifying the potential presence and absence of archaeological resources using predictive modeling within areas to be designated as high, medium and low potential. The results of the archaeological overview assessment will guide requirements for an archaeological impact assessment. The impact assessment will determine the potential to encounter archaeological and cultural resources at the site of the proposed road works and ancillary activities; and if any are found, to ensure that they are properly handled, documented and preserved. In addition to assessing impacts on archaeological resources, some areas may hold value to local communities, such as traditional harvesting areas, trails & trail systems, portages and river corridors. The heritage value of the areas where the proposal will take place needs to be confirmed through traditional knowledge.	<p>June 30: See comments above. An overall archaeological survey has been completed previously, followed up with targeted AIA's. A new survey will not generate any better information and is not warranted. Construction activities and camps will be limited to the existing winter road right of way. There may be additional aggregate sources, but these will be small in area and will be located in areas of low risk for heritage resource occurrence. In the park, the main aggregate sources are talus slopes which have a very low risk of heritage resource occurrence. The consequence of additional surveys, other than the expenditure involved, will be that no heritage resources will be found, but that conditions should be included in permits for their protection if discovered. That is exactly how it is currently in winter road permits. Regarding traditional harvesting areas, during previous engagement in Nahanni Butte, we were told trappers currently active in the area (near Grainger Gap) favour road improvement because of the difficulty and cost of access to trap lines. Regarding portages and river corridors, an all season road will have no greater negative effect than the winter road, in fact the opposite, it will facilitate them. A very thorough and detailed TK assessment was completed independently by P. Redvers for the Naha Dehe Dene Band previously.</p>	<p>An assessment of cultural resources have been included in Section 5.2.3 and 7.3.10.</p>

ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Response
		Recommendation The proponent will need to refer to Appendix I of this document which outlines the requirements for the conservation of cultural resources.		
18	PCA-8 Section 3.2.3, page 12	<p>Comment This section outlines that there are likely to be one or two locations where the stream bed will need to be moved in the Sundog Creek area. Such activities will result in potential losses of fish habitat for months to several years as the newly created stream develops benthic macroinvertebrate habitat and communities necessary for fish.</p> <p>Recommendation Parks Canada recommends that this information be taken into consideration in the assessment of impacts.</p>	<p>June 30: This will be considered, however our expectation is that the habitat value is low in the floodplain gravels, and can be replaced with relative ease.</p>	<p>The time for habitat recovery has been included in Section 7.3.7 of the Draft ToR.</p>
19	PCA-9 Section 3.2.3, page 12	<p>Comment With many outstanding examples of karst formations and some unique features found nowhere else in the world, the Nahanni North Karst area is an internationally outstanding example of karst landscape . Karst terrain is geologically less stable and may be vulnerable to collapse or significant erosion with construction on the surface. The vulnerability of karst landscapes, even after past use, has been demonstrated by the sudden collapse of rock under highways, bridges, buildings, vehicles and other structures. It is recommended that the environmental assessment include information on the geotechnical stability of the road under different hydrological scenarios for the planned volume and weight of vehicular use through the karst area and mitigation to eliminate or reduce impacts to the karst.</p> <p>Recommendation Parks Canada recommends that the key lines of inquiry include the potential impact to karst topography.</p>	<p>June 30: We agree with the majority of the comment, except for the end. The all season road will see the same volume and weight of vehicles as the winter road. There is no difference in bedrock stability between winter and summer conditions. A very detailed and thorough terrain assessment was completed previously (see Appendix 16 of the EA08-09 DAR), and this included detailed consideration of karst features and stability. It should also be noted that the road was re-aligned specifically to avoid bisecting the poljes and crossing a part of the plateau where sinkholes are proximal to the road. There is no justification for further assessment, which would not result in any additional adaptive management or mitigation plans than those already in place for the winter road. It should also be noted that the TTF is not on karst, and CZN is not considering any further road re-alignments on karst.</p>	<p>Karst has not been identified as a key line of inquiry on its own. However, the effects to karst will be considered under the key line of inquiry of <i>Effects of Potential Accidents and Malfunctions</i> . Karst is further addressed in the subject of note on <i>Terrain, Soils, Permafrost, and Karst Topography</i> and in Section 6.2 on <i>Road Design Considerations</i>.</p>

ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Response
20	PCA-10 Section 3.3, page 13	Comment None Recommendation Parks Canada recommends that the geographic scope of harvesting include the area of the road located within NNPR.	June 30: OK	The minimum geographic scope for harvesting is within 50 km of the road, this is both inside and outside of the Park. See Section 3.3 of the Draft ToR.
21	PCA-11 Section 3.3, page 13	Comment The proponent outlines the geographic scope for water quality and quantity as “within the immediate basin crossed by the road”. Parks Canada would like to note that subsurface water flow in the karst area (approximately kilometre 43 to 83) is different than the surface watershed flow, therefore Parks Canada recommends that the impacts on both watersheds be considered in the area of karst. In addition, if multiple potentially impacted watersheds come together, consideration of cumulative impacts must occur. (Parks Canada is interpreting the term “basin” in the ToR to mean “watershed”) Recommendation Parks Canada recommends that the impacts on both watersheds be considered in the area of karst.	June 30: We agree in principle, however we think the case for cumulative impacts is tenuous at best and unnecessary in terms of evaluating potential impacts to watersheds.	Both surface and subsurface watersheds have been included in the geographic scope for water and water quality in Section 3.3 of the Draft ToR.
22	PCA-12 Section 3.3, page 13	Comment Some of the species at risk within NNPR include: Wood Bison (SARA Schedule 1 Threatened), Olive Sided Flycatcher (SARA Schedule 1 Threatened), Woodland Caribou-Boreal (SARA Schedule 1 Threatened) and Northern Mountain Populations (SARA Schedule 1 Special Concern), Peregrine falcon (SARA Schedule 1 Special Concern), Rusty Blackbird (SARA Schedule 1 Special Concern), Short Eared Owl (SARA Schedule 1 Special Concern)and Yellow rail (SARA Schedule 1 Special Concern). Recommendation Parks Canada recommends that the geographic scope for species at risk be specific to the individual species being assessed in order to address potential population level impacts.	June 30: We agree in principle, however wood bison do not currently occur in the NNPR proximal to the road corridor.	Parks Canada's comments have been included in the minimum geographic scope in Section 3.3 of the Draft ToR.

ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Response
23	PCA-13 Section 3.3, page 13	Comment None Recommendation Parks Canada recommends that the geographic scope for wildlife be specific to the individual species being assessed. This would include their seasonal and migratory ranges and areas needed for key life cycle requirements such as mating, calving, etc.	June 30: OK	The geographic scope is species specific. See Section 3.3 of the Draft ToR.
24	PCA-14 Section 3.3, page 13	Comment The geographic scope for assessing impacts on cultural resources must be specific to the potentially impacted cultural resource. The geographic scope of assessment for visitor experience must be based on the appropriate viewsapes in the area. Recommendation Parks Canada recommends that the geographic scope for assessing impacts on the ecological integrity of Nahanni National Park Reserve follow the geographic scopes identified for the valued components being assessed.	June 30: The recommendation doesn't fit the comment. In terms of visitor experience, we see very little difference in summer between the cleared winter road right of way with seven bridges and the same cleared area but with an all season road bed and a few additional bridges. Similarly, there will be very little difference between the winter road TTF and the all season road TTF, despite the approximate doubling in size, since it will still be small relative to the area. The presence of an additional airstrip would similarly be small relative to the area. Therefore, on reflection, visitor experience should not be part of the scope of assessment, or at worst, the geographic scope should be limited to the South Nahanni lowlands where nearly all visitation occurs.	Parks Canada's comments have been accepted and are included Section 3.3 of the Draft ToR.
25	PCA-15 Section 3.4, page 13	Comment None Recommendation Parks Canada recommends that the temporal scope also include the decommissioning of the road including removal of road crossing structures and restoration of instream and riparian habitats.	June 30: OK	The temporal scope includes the effects of the project on valued components during construction, operation, closure and post closure. See Section 3.4 of the Draft ToR

ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Response
26	PCA-16 Section 5.1.1 page 14	<p>Comment With regard to specific information requirements, Parks Canada would like to note that existing locations of permafrost are not available for the entire winter road and will therefore need to be provided for the proposed all season road. This information is important for determining the extent and volumes of road building materials required as there are different requirements when constructing a road over permafrost.</p> <p>Recommendation None</p>	<p>June 30: Parks Canada is aware that previous investigations along the alignment did not find permafrost, even in locations where it was considered possible to occur. This is also the case in a construction progress report from 1981. This is likely due to the location of the alignment on flat ground or south facing slopes. Further investigation will be undertaken, but no amount of investigation will be able to rule out the presence of permafrost. The important thing is to have a construction approach to address such conditions if they are encountered, as is the case for the winter road.</p>	<p>An assessment of permafrost has been listed in Section 5.1.1 in the Draft ToR.</p>
27	PCA-17 Section 5.1.3, page 15	<p>Comment None</p> <p>Recommendation Parks Canada recommends that water quality data be gathered (e.g. dissolved oxygen concentrations, water turbidity) to supplement current data in order to create water quality guidelines that describe the natural ranges in water quality at the proposed stream crossings. This data could then be used as the basis for future monitoring of impacts to water quality and aquatic life.</p>	<p>June 30: We agree in principle, however this will be for baseline, not for the creation of water quality guidelines.</p>	<p>Baseline water quality data has been listed in Section 5.1.3 in the Draft ToR.</p>
28	PCA-18 Section 5.1.4, page 13	<p>Comment None</p> <p>Recommendation With regards to baseline information for aquatic fish habitat, Parks Canada recommends that more information be provided for the Sun Dog Creek area where the re-alignment is being considered. For example, what habitat types will be lost in the re-alignment (runs, riffles, pools, etc..) What habitat types will be re-created in the new channel and how will those habitat types compare to the original?</p>	<p>June 30: That is the intention.</p>	<p>Baseline information on fish and aquatic habitat have been included in Section 5.1.3 in the Draft ToR.</p>

ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Response
29	PCA-19 Section 5.1.5, page 15-16	<p>Comment As noted in the document additional wildlife and wildlife habitat surveys will need to be done to collect information in the spring, summer and fall seasons.</p> <p>Recommendation Parks Canada recommends that these surveys be designed and conducted in a scientifically defensible manner.</p>	<p>June 30: We expect our consultant to do exactly that.</p>	<p>N/A</p>
30	PCA-20 Section 5.1.6, page 16	<p>Comment Park Canada does not agree that the baseline for vegetation in proximity to the road is adequately established. The only vegetation work that has been done in the road area is at least 20 years old, other than the rare plant survey done in the Polje By-pass area.</p> <p>Recommendation Parks Canada recommends that additional work be done to establish an up to date vegetation baseline characteristic of the entire length of the road.</p>	<p>June 30: The vegetation units along the access road corridor established themselves over many centuries. They will not have changed over the relatively short period of approximately 30 years. The vegetation baseline was more than adequate for assessment of the winter road industrial development. It is just as adequate for assessment of the all season road industrial development. We would consider detail beyond that to be of a research nature, and to be the responsibility of Parks Canada.</p>	<p>A vegetation assessment has been included in Section 5.1.7 in the Draft ToR.</p>
31	PCA-21 Section 6.1, page 17	<p>Comment None</p> <p>Recommendation Parks Canada recommends that this section include consideration of alternative means to the proposal, including alternative routes or re-alignments. All of the project components should be described for key alternate routes or re-alignments.</p>	<p>June 30: We have been clear that the all season road will utilize the winter road alignment. We may consider and propose one or two minor re-alignments, but the route is essentially fixed due to adjacent very challenging terrain, especially crossing the Ram. We will consider access to a proposed airstrip in terms of the road alignment. These are the only alternatives we propose to consider and we believe they are only ones practical.</p>	<p>Section 6.1 of the Draft ToR considers alternate means within the project, this will include possible road alignments, and lists the components to address for each alternative.</p>

ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Response
32	PCA-22 Section 6.1, page 17	Comment None Recommendation Parks Canada recommends that the project components include the new borrow pits and any associated access roads.	June 30: This is already included.	Borrow pits have been included as a project component in Section 6.1 of the Draft ToR.
33	PCA-23 Section 6.1, page 17	Comment None Recommendation Parks Canada recommends that the project components include a detailed design of the Tetcela Transfer Facility (TTF) as well as a fire risk analysis of the facility which may provide recommendations for proactive management.	June 30: Detailed design is not appropriate at the EA stage. Consideration of fire risk and related management requirements is justified.	design standards for all project components is listed in Section 6.1 of the Draft ToR fire risk analysis is listed in Section 8 and 9 of the Draft ToR
34	PCA-24 Section 7.2.2, page 20	Comment None Recommendation Parks Canada recommends that this section includes specific impacts from the increased storage of concentrates at the Tetcela Transfer Facility.	June 30: The expansion is insignificant in terms of potential impacts on terrain, soils and permafrost, and as noted above, the TTF is not on karst. Therefore, we disagree.	the geographic scope for terrain (Section 3.3) is described as " <i>within 30 km of the road</i> ". The effect of the TTF is captured under this definition.
35	PCA-25 Section 7.2.6, page 21	Comment None Recommendation Parks Canada recommends that this section includes the specific area around the Tetcela Transfer Facility.	June 30: The TTF location was specifically selected because it is distant from local water sources. Hence, there is not logic to including it in the assessment of impacts to water.	the geographic scope for water (Section 3.3) is described as " <i>the surface and subsurface watersheds to the point where reasonable foreseeable project effects cease to occur</i> ". The effect of the TTF is captured under this definition.
36	PCA-26 Section 7.2.10, page 22	Comment None Recommendation Parks Canada recommends that this section includes the change of vegetation due to fire management around the TTF (ie fire suppression will occur in the area where it has not in the past).	June 30: If the subject here is vegetation removal to create a fire break, the area involved is very small in a broadly wooded plain, and the associated impact minimal. We disagree.	Consideration of fire management on vegetation is addressed in Section 7.3.9 of the Draft ToR.

ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Response
37	PCA-27 Section 7.2.11, page 22	Comment None Recommendation Parks Canada recommends that the section on traditional land use include the effects of increase access on traditional users.	June 30: As noted above, out information is that there is currently no traditional use of the corridor. Increased access will actually provide a positive benefit for traditional users in this regard. We do not think it necessary to include this in the EA scope.	Parks Canada's comments have been reflected in the key line of inquiry on <i>Traditional Harvesting and Traditionally Harvested Species</i> (Section 7.2.1).
38	PCA-28 Section 7.2	Comment None Recommendation Parks Canada recommends that this section include the potential of the project to increase forest fire risk. This should include a classification of forest cover fuel types along the Right of Way to indicate potential risk for forest fires.	June 30: We agree with the first part, but we believe the risks can be based on the presently defined vegetation units and compositions.	Potential forest fires as a result of the project are addressed under <i>Potential Accidents and Malfunctions</i> , in Section 9 of the Draft ToR.
Mackenzie Valley Environmental Impact Review Board: Mark Cliffe-Phillips				
1	Naha Dehe Dene Band comments on Draft Developer's Proposed Terms of Reference - Prairie Creek All Season Road Project	Comment Prepared June 11th, 2014 Recommendation Comments uploaded on behalf of the Naha Dehe Dene Band by Review Board Staff		

ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Response
2	Pg. 4-5, Section 1.1: CZN notes the concerns with winter road operations, concludes that an all season road from the mine site to the Tetcela Transfer Facility (later referred to as Phase 1) will "alleviate the concerns", and then proposes a further extension of an all season road from the TTF to th	<p>Comment Throughout the mine and winter road EA and regulatory processes, CZN insisted that winter road operation was economically viable and NDDDB is surprised that CZN is only now changing its analysis. The premise of the current permits is that the mine can operate with a winter road only and CZN appears to remain confident that winter road operation is viable in most situations, except for occasional unexpected delays and long term climate shift. There is no evidence to suggest that an all season road from the mine site to the Liard River is essential for mine operation, unless CZN provided the MVEIRB and MVLWB with flawed information during the initial EA and regulatory processes, although reducing the occasional risk of delays does make operational sense. For that reason, NDDDB can understand the Phase 1 option of an all season road to the Tetcela Transfer Facility so that the winter road haul is only from the TTF to the Liard River, as that will considerably reduce risk and hauling time in the winter, but sees no value and considerable socio-environmental risks from an all season road to the Liard River.</p> <p>Recommendation NDDDB recommends that CZN withdraw its application for the Phase 2 expansion of the all season road application and focus this application only on the expansion from the mine site to the TTF.</p>	<p>June 30: We propose to assess and permit both Phase 1 and Phase 2 of the project. Economic conditions can vary over the life of any mining project, and proponents are always considering ways to optimize their projects.</p>	Phase 1 and 2 will be assessed.
3	Pg 5, Section 1.1: CZN proposes that multi-party collaboration is required for the Phase 2 expansion due to the "anticipated significant cost" to upgrade (ie. construct) that portion of the road.	<p>Comment CZN has provided no evidence or indication that it has identified, discussed, and/or received expressions of interest from other parties regarding the financing of the Phase 2 portion of this application.</p> <p>Recommendation NDDDB recommends that CZN provide specific information about what parties it is proposing to collaborate with, whether these parties have been contacted and have entered into discussions with CZN regarding this matter, and whether or not there is expressed interest by these parties in multi-party financing of Phase 2 of the application. Otherwise this portion of the application is speculative only and should not be considered to be a viable project application.</p>	<p>June 30: This has nothing to do with EA scoping. CZN has proposed a project for assessment. The cost of the project and financing are not a necessary consideration for the EA. We merely indicated that a future decision to proceed with Phase 2 will depend on economics, as all such projects do, and that those economics might alter if there is collaboration. The project is not necessarily contingent on collaboration, and we have not sought out collaboration to date. Nevertheless, there is no reason why the project in its entirety should not proceed through the EA.</p>	Phase 1 and 2 will be assessed.

ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Response
4	Pg 8, Section 1.3: CZN states that its development plan for the Mine "includes use of the winter road for at least the first few years of operations, after which the road might be upgraded for all season use" (italics added).	<p>Comment This statement indicates that the proposed all season road is not an essential component of mine operations. If the mine can operate initially with the winter road only, which is the NDDB's preference, then NDDB questions why this application is being made at all, particularly with respect to the Phase 2 component of the application, which seems to be completely unnecessary.</p> <p>Recommendation NDDB recommends that CZN withdraw its application for the Phase 2 expansion of the all season road application and focus only on the expansion from the mine site to the TTF.</p>	June 30: See response 2 cells up.	Phase 1 and 2 will be assessed.
5	Pg 8, Section 1.3: CZN states that "The footprint of the all season road will be less than the winter road...".	<p>Comment Given that a winter road melts away and disappears in the non-winter months and has limited impact on the environment during the off-season, while a gravel all season road remains visible on and impacts the landscape year round, this statement is simply incorrect.</p> <p>Recommendation NDDB recommends that the Board review the year round and long-term impact of a gravel all-season road on the landscape and on integrity of the land compared to the currently licenced winter road.</p>	June 30: The statement is correct, the commenter is seeking to qualify it. We believe the recommendation embodies the Board's intent, albeit tempered by focussing the scope of assessment based on what has already been assessed for the winter road.	The project has been described as an all season road and will be assessed as such.
6	Pg 9, Section 1.3: CZN states "Therefore, on a yearly basis, the total traffic volume will remain the same."	<p>Comment This statement assumes that production levels at the mine remain the same. However, with an all season road to the Liard River and the ability to haul ore concentrate for a great part of the year, there may be an economic interest in increasing mine production and haulage, which would increase road impacts and, due to increased mill operation, require fundamental changes to the water management regime at the mine site.</p> <p>Recommendation NDDB recommends that the Board get a clear and definitive statement and commitment from CZN regarding its long term intentions for mine production if an all season road to the Liard River were constructed.</p>	June 30: At this time, we have no intention of expanding the Mine in terms of daily capacity. Capacity is limited by the size of equipment in the Mill, and it would be very expensive to buy larger equipment.	Mine capacity is stated in the Report of EA0809-02 and Water Licence for the CanZinc mine. It will not be reconsidered in this EA.

ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Response
7	Pg. 9, Section 1.3: CZN states that "The addition of an airstrip in the Sundog-Ram Plateau area and the expansion of the [TTF] will be a footprint addition. However, this addition would be relatively small."	<p>Comment NDDB notes that the addition of the airstrip and expansion of the TTF would, in fact, increase the impact of mine operations on the integrity of the land in the Sundog-Ram Plateau area. However, NDDB agrees with CZN's rationale for an airstrip, that it will provide an alternative landing site for planes that will be carrying NDDB and other workers and therefore increases safety. NDDB also agrees that the Phase 1 expansion of the all season road to the TTF would be adequate to alleviate any and all concerns associated with a winter road only operation for the full route.</p> <p>Recommendation NDDB recommends that the Board ensure that the airstrip and Phase 1 expansion are assessed to identify potential impacts to the environment and appropriate mitigative measures to reduce these impacts.</p>	<p>June 30: We agree, and this raises an important point: the issues for Phase 1 will not always be the same as for Phase 2. For example, increased access to the area by road is only an issue for Phase 2. Therefore, impacts for Phase 1 and Phase 2 perhaps need to be considered separately, since the Board's decisions and requirements may also be specific to the 2 phases.</p>	agreed
8	Pg 9, Section 2.2: Incorporation of Traditional Knowledge	<p>Comment NDDB submitted a comprehensive 'TK Assessment of the Prairie Creek Mine Operation' during the EA associated with the current mine and winter road permits. NDDB intends to have this document carried forward to the current EA and make it accessible to reviewers at the MVEIRB office on a need-to-know basis.</p> <p>Recommendation NDDB recommends that, once this document is available, interveners review those sections of the document relevant to their mandates so that they can be fully informed of NDDB traditional interests and concerns in the proposed project area.</p>	<p>June 30: We have no objection, but we also caution that we collected some additional TK ourselves during engagement with NDDB elders, and this was noted in the process for EA08-09. Intervenors should therefore also refer to that source.</p>	TK Assessment has been received by the Review Board
9	Pg 10, Section 3.1: CZN notes that the scope of development includes "the construction, operation, reclamation, and closure of the all season road and the airstrip".	<p>Comment NDDB notes that the project scope also includes the expansion of the TTF and the construction and operation of a barge service at the Liard River. CZN should also clarify what, if any, change to the operation of the Liard Transfer Facility might occur, so the Board and others can determine whether that needs to be included in the scope of this EA.</p> <p>Recommendation NDDB recommends that CZN more clearly articulate the scope of the proposed project. However, as noted in lines 5 and 7 above, NDDB also recommends that CZN first consider withdrawing its application for a Phase 2 road expansion.</p>	<p>June 30: We noted in our presentations that, with the all season road project, the LTF would receive concentrates year round instead of only in winter. There would, however, be no significant changes to the LTF itself, or to the schedule of traffic leaving the LTF for Fort Nelson.</p>	The LTF is not included in the scope of development in the Terms of Reference as there are no significant changes to the facility.

ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Response
10	Pg. 11, Section 3.2.2: Effects Assessment Valued Components	<p>Comment NDDDB notes that the project will impact on its Treaty and Aboriginal rights through impacts on wildlife and fish habitat, disruption of traditonal harvesting activities, and potential depletion of wildlife resources through increased non-NDDDB harvester access to the area.</p> <p>Recommendation NDDDB recommends that a formal s35 consultation process be initiated by the appropriate government agency or agencies if the Phase 2 portion of the current application moves forward. NDDDB further recommends that the MVEIRB and CZN identify and fulfill any procedural aspects of s35 consultaton they are responsible for.</p>	<p>June 30: We will not comment on governmental responsibilities. For our part, CZN will continue to engage with the Chief, council and members of the NDDDB in a respectful manner, as we have always done.</p>	
11	Pg. 12, Section 3.2.3: CZN states that "there are likely to be one or two locations where the stream bed will need to be moved to accommodate the road remaining on the south bank."	<p>Comment NDDDB is very concerned about the relocation of naturally-occurring stream beds as this is a significant disturbance to the environment that will cause unpredictable results.</p> <p>Recommendation NDDDB recommends that CZN work closely with Parks Canada to minimize any dislocation of existing stream beds and consider alternative approaches to accommodating road requirements.</p>	<p>June 30: The appropriate agency in this regard is DFO. Minor road realignment in lower Sundog Creek will actually reduce the number of crossings and be a positive. We do not expect that stream bed relocation will be a significant disturbance because this occurs naturally and frequently in the broad, alluvial floodplain.</p>	n/a

ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Response
12	Pg 12, Section 3.2.3: Key Lines of Inquiry	<p>Comment NDDDB notes that erosion and sediment impacts will also need to be reviewed as a priority, as well as gravel access and haul impacts; the potential for rock, mud, and snow slides; and permafrost shift. Furthermore, if Phase 2 does get assessed, impacts on the Tetcela and Bluefish Creek wetland valleys are of key concern.</p> <p>Recommendation NDDDB recommends that CZN revise its key lines of inquiry to address NDDDB concerns.</p>	<p>June 30: With respect, while NDDDB concerns are important, they are not the only factor to consider for key lines of inquiry, and while a concern may be genuine, it may not actually be a significant concern in reality. An example would be fish and the wetland valleys. The reality is that the valleys are heavily dammed by beavers, such that the fisheries habitat is poor.</p>	<p>The key lines of inquiry are listed in Section 7.2 of the Draft ToR. The key lines are</p> <ol style="list-style-type: none"> 1. Impacts to traditional harvesting and traditionally harvested species 2. Effects of potential accidents and malfunctions 3. Ecological integrity and visitor experience of Nahanni National Park Reserve
13	Pg 12-13, Section 3.3: Geographic Scope of Assessment	<p>Comment Bullet 3: NDDDB would be surprised if gravel access roads of 30 kms would be needed. CZN needs to clarify the required scope of its gravel needs. Bullet 6: NDDDB disagrees that water quality and quantity impacts should be limited to the "immediate basin crossed by the road" as CZN cannot assume the dilution effects of an oil spill, as an example, and must first establish baseline information. The extent of potential water quality and quantify impacts should be extended, particularly with respect to the non-winter seasons. Bullet 8: Potential impacts on fish and fish habitat have to take into account the possibility of erosion/sedimentation and contaminant spills. Fish studies therefore have to extend further downstream than 1 km, to the reasonable limit in which full dilution of sedimentation or of a spill might occur. Bullet 9: Wildlife studies must be carried out during all seasons before CZN can state that the road does not impact any significant herd. For example, boreal caribou are known to move through Second Gap at certain times of the year. Further detailed seasonal studies of wildlife populations, particularly boreal caribou, mountain caribou, moose, and sheep, are required. Bullet 10: The potential for invasive species may increase significantly with year round traffic as plant material is more likely to be carried in during the non-winter months. Special attention must be paid to assessing the potential for invasive vegetation species during the non-winter seasons.</p> <p>Recommendation See highlighted sections in adjacent box.</p>	<p>June 30: Bullet 3: This can be reduced to 5 km. Bullet 6: CZN is not assuming that. However, we are assuming that surface water quality is essentially pristine, and we will use sampling in the basins crossed to confirm that. If a spill did occur, remediation would occur according to prevailing guidelines. Bullet 8: We agree with the first part, but not the part suggesting fish studies downstream since we already know fish utilization in the creek systems crossed, and this will be no different immediately downstream. In short, in most cases, we will assume fish are present. Bullet 9: Seasonal studies are planned, and will be designed and carried out by our consultant. Bullet 10: We agree this requires assessment.</p>	<p>NDDDB's comments have been reflected in the minimum geographic scope in Section 3.3 of the Draft ToR.</p>

ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Response
14	Pg 13, Section 3.4: Temporal Scope of Assessment	<p>Comment CZN has not clarified the extent of the mine life relative to this application. Is it the same as that proposed in the current licences or will it change? Furthermore, it is inappropriate for CZN to suggest for this application that the road may be used subsequent to mine operations. The Board must ensure (if, contrary to NDDB's expectation, it licences Phase 2), that CZN will hold full liability for the closure and reclamation of the road at mine closure, with an appropriate advance security deposit in place.</p> <p>Recommendation NDDB recommends that CZN clarify the mine life associated with this application and also clarify its liabilities associated with Phase 2 and how these would be fulfilled.</p>	<p>June 30: The proposed mine life has been stated previously. CZN expects that it will be required to determine the necessary security to close and reclaim the all season road during permitting, and to post that security before project initiation.</p>	<p>Mine capacity is stated in the Report of EA0809-02 and Water Licence for the CanZinc mine. It will not be reconsidered in this EA.</p>
15	Pg. 14, Section 3.5: CZN states that "there are no practical alternatives to the project proposals, and no further analysis of alternatives will be made".	<p>Comment NDDB strongly disagrees with this assumption. The plausible alternative is for CZN to proceed with an application for the expansion of the all season road to the TTF, which, as CZN notes on pg 7, will "enable the year-round transport of concentrates to the TTF, and alleviate the concerns described above" and withdraw the application for all season road expansion to the Liard River, as this expansion is unnecessary, speculative at best, and posed significant impacts on the environment and NDDB Treaty and Aboriginal rights.</p> <p>Recommendation NDDB recommends that CZN conduct a thorough risk/cost/benefit analysis of the option of using an all season road from the mine site to the TTF and utilizing a winter road only beyond that point. However, NDDB also retains the position that CZN seriously consider withdrawing its application for the Phase 2 expansion and focus only on the expansion from the mine site to the TTF.</p>	<p>July 7: We believe an alternatives assessment is to consider alternative approaches to components of a project, not exclusion of the project itself. As noted elsewhere, CZN intends to pursue assessment and permitting of both Phase 1 and Phase 2 developments.</p>	<p>A cost-benefit analysis is required in the consideration of alternatives to the project in Section 3.5 of the Draft ToR. The EA will assess both phases of the project.</p>

ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Response
16	Pg. 15, Section 5.1.4: CZN states that the baseline for fish and aquatic habitat was well established in EA08-09.	<p>Comment NDDDB disagrees with this statement in that the value of the creeks and wetlands in the Tetcela River/Fishtrap Creek and Bluefish Creek valleys as fish habitat was not fully assessed during EA08-09. This assessment was not carried out because a winter road operation would not have significantly affected this habitat or these fish populations. An all season road in these areas, however, could impact fish movement and fish habitat in the valleys that are the source waters for two fish bearing and traditionally harvested creeks, Fishtrap Creek and Bluefish Creek, both of which enter the Nahanni River just upriver of Nahanni Butte, and both of which had traditional settlements near their mouths. Furthermore, the proposed assessment should include TK information contained in the NDDDB TK assessment of the mine along with updated TK information formally and appropriately gathered in collaboration with NDDDB and its elders/harvesters and according to regional TK protocols.</p> <p>Recommendation NDDDB recommends that CZN carry out fish and fish habitat studies for the Tetcela River / Fishtrap Creek and Bluefish Creek valleys - including the use of appropriately gathered TK information -- in order to identify potential impacts and mitigation measures relating to road construction, operation, drainage/sedimentation, and spill response.</p>	<p>June 30: Previous studies have documented that the Tecela River does host fish. Regarding Fishtrap and Bluefish creeks, previous studies indicated that, since the road crosses these creeks very close to the upstream edges of their catchments, and the creeks are heavily dammed by beavers all the way downstream, fish habitat quality is low and the potential for impacts is similarly low. We don't doubt that there were settlements and harvesting near their mouths. We are in possession of relevant TK information from EA08-09. We believe that TK study was exhaustive, and we see no basis for an 'update'.</p>	<p>NDDDB's comments have been incorporated into Section 5.1.5 of the Draft ToR.</p>
17	Pg. 16, Section 5.1.5, Wildlife and Wildlife Habitat	<p>Comment Aerial surveys should reflect shifts in seasonal use by wildlife, should be carried out under in collaboration with and under permit by the ENR Wildlife Division, and should incorporate NDDDB wildlife monitors. Any wildlife assessments should also incorporate appropriately gathered TK information.</p> <p>Recommendation See adjacent box.</p>	<p>June 30: As noted above, wildlife surveys will be conducted as designed by our consultant. These will require study permits from Parks Canada and the GNWT. The surveys will include aboriginal involvement.</p>	<p>The baseline wildlife requirements are listed in Section 5.1.6 of the Draft ToR.</p>

ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Response
18	Pg. 16, Section 5.2.2: Harvesting	<p>Comment In its DAR for EA08-09, CZN used anecdotal TK information rather than relying on the TK assessment carried out by the NDDDB. The current assessment should draw from the formal NDDDB TK assessment, of which CZN has a copy, and, as necessary, should include updated but appropriately gathered TK information, not anecdotal information.</p> <p>Recommendation See adjacent box.</p>	<p>June 30: CZN will use all of the TK information currently available, which we know is extensive and does not require updating. We don't think the commenter should imply that the TK information CZN collected from NDDDB elders is not to be trusted. This would be disrespectful to the elders.</p>	<p>The Review Board encourages the use of traditional knowledge where possible as stated in Section 2.2 of the Draft ToR.</p>
19	Pg. 17-18, Section 6 (6.1, 6.2, 6.3): Development Description	<p>Comment NDDDB expects that the development description will be broken down according to the proposed Phases, if Phase 2 remains a consideration of this application. These Phases must be treated differently as the rationale for, desirability of, possibility of, and impacts of these Phases are quite different.</p> <p>Recommendation NDDDB recommends that CZN, if it chooses to continue to pursue Phase 2 as a component of this application, prepare a comprehensive break down of the project description and activities by Phase, including a discussion of the need for each Phase and a cost/benefit/risk analysis of each Phase, relative to the currently permitted project.</p>	<p>June 30: CZN intends to permit Phase 1 and Phase 2, and we agree that each phase should to be explained and assessed separately. However, 'cost/benefit' is not an appropriate part of EA scope, and in any event this changes over time in response to metal prices and construction costs.</p>	<p>How to incorporate the breakdown of phases is discussed in Section 3.1.2 of the Draft ToR.</p>
20	Pg. 19-23, Section 7: Assessment of Environmental Impacts and Cumulative Effects	<p>Comment NDDDB expects that the assessment of impacts and effects will be broken down according to the proposed Phases, if Phase 2 remains a consideration of this application. These Phases must be treated differently as the rationale for, desirability of, possibility of, and impacts of these Phases are quite different.</p> <p>Recommendation NDDDB recommends that CZN, if it chooses to continue to pursue Phase 2 as a component of this application, prepare a comprehensive break down of the environmental assessment by Phases so that reviewers can assess the impacts and effects of each Phase separately.</p>	<p>June 30: We agree.</p>	<p>How to incorporate the breakdown of phases is discussed in Section 3.1.2 of the Draft ToR.</p>

ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Response
21	Pg. 19, Section 7.2.1 and Pg 22, Section 7.2.9	<p>Comment NDDDB notes that one of its major concerns is public access to the wetland valleys and mountain ranges between the Liard River and the Tetcela Transfer Facility. This access would allow Aboriginal and resident NWT hunters to freely harvest wildlife of significance to NDDDB members and would result in a depletion in wildlife resources in the area. Phase 1 does not include access, while Phase 2 does, so, again, these different Phases must be assessed separately.</p> <p>Recommendation See adjacent box.</p>	<p>June 30: We agree.</p>	<p>How to incorporate the breakdown of phases is discussed in Section 3.1.2 of the Draft ToR.</p>
22	Pg. 24-26, Sections 8 to 13	<p>Comment NDDDB expects that the assessments carried out in these sections will be broken down according to the proposed Phases, if Phase 2 remains a consideration of this application. These Phases must be treated differently as the rationale for, desirability of, possibility of, and impacts of these Phases are quite different.</p> <p>Recommendation NDDDB recommends that CZN, if it chooses to continue to pursue Phase 2 as a component of this application, prepare a comprehensive break down of these sections by Phases so that reviewers can assess the required information for each Phase separately.</p>	<p>June 30: We agree.</p>	<p>How to incorporate the breakdown of phases is discussed in Section 3.1.2 of the Draft ToR.</p>
Mackenzie Valley Environmental Impact Review Board: Sachi De Souza				
16	General File	<p><u>Comment (doc) This was submitted by CPAWS on Thursday June 19th. The comments and recommendations from CPAWS are currently located under Sachi De Souza.</u></p> <p>Recommendation</p>		
2	Section 3 - Scope Consideration	<p>Comment This is the beginning of the CPAWS comments and recommendations. These were submitted on behalf of CPAWS by Review Board staff.</p> <p>Recommendation A map of the proposed all weather road, overlaid with the existing winter road alignment. A map outlining where the proposed air strip will be constructed. "... Somewhere close to the road..." (pg 10) does not provide a useful representation of where the airstrip will be located. A clear definition of "comparatively less activity" (pg 10) in regards to the usage of the proposed airstrip compared to the current airstrip: frequency of use and types of aircraft must be included to assess the impact of the project.</p>	<p>June 30: The proposed all weather road will use the winter road alignment. Airstrip locations require investigation. We provided an initial indication. The requested information will be in the DAR.</p>	<p>Maps are requested in Section 2.1 of the Draft ToR.</p> <p>The frequency of aircraft movement has been listed as a project component in Section 6.1 of the Draft ToR.</p>

ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Response
3	Section 3.2.2 Air Quality	<p>Comment None</p> <p>Recommendation We request that other emissions such as exhaust from vehicles should be assessed beyond the winter season</p>	<p>June 30: Exhaust gases pose an annual cumulative issue, not a seasonal issue. Annual quantities will be no different from the winter road, and do not require assessment.</p>	<p>This has been included in Section 7.3.3 of the Draft ToR.</p>
4	Section 3.2.2 Water Quantity/Quality	<p>Comment None</p> <p>Recommendation We request that the assessment consider both surface and groundwater</p>	<p>June 30: Both surface water and groundwater flow patterns will be considered.</p>	<p>Both surface, groundwater, and subsurface water have been included. See Section 5.1.3 and 7.3.5 of the Draft ToR.</p>
5	Section 3.2.3 Key Lines of Inquiry	<p>Comment None</p> <p>Recommendation To better understand the location and scale of the Phase 1 development we request that the proponents provide a visual representation of the following: A map depicting the location of the second airstrip, the possible minor realignment of road and the location of the stream sections that may be moved 1 or 2 locations of stream may need to be moved to accommodate the road (pg 12) For Phase 2 we request that key lines of inquiry are presented in a manner that clarifies that impacts will be assessed in all seasons. For example, the potential for impacts on wildlife in each season from sensory disturbance, possible truck-animal collisions and hunting pressures associated with increased accessibility (pg12)</p>	<p>June 30: We agree that this information should be included, but we would only consider the Phase 2 recommendation regarding wildlife to be a key line of inquiry.</p>	<p>The use of maps is recommended to assist the EA. This is stated in Section 2.1 of the Draft ToR.</p>
6	3.3 Geographic Scope of Assessment	<p>Comment None</p> <p>Recommendation The proposed second air strip is not included in the Geographic Scope of Assessment. In order to properly assess the impact of the project on each valued component, the precise geographic scope of the airstrip must be included in the Terms of Reference. Based on the information provided, we assume that the geographic scope for each valued component (listed in kilometres) was arbitrarily assigned. We request a clear definition of practical effect to quantify the geographic scope of the impact of the road. The rationale for considering water quality and quantity dilution impacts assumes that the basin crossed by the proposed all season road is isolated from any other basins. We request that the geographic scope of the assessment include hydrological mapping as evidence that the basin crossed by the all season road is in fact isolated.</p>	<p>June 30: Geographic scope is defined based on the valued component. The main consideration of effects from a second airstrip is related to wildlife, and that valued component has a broad geographic scope. Regarding water quality, see our response to NDDB above.</p>	<p>The geographic scope is defined by the valued components. The minimum geographic scope has been set based on a distance from the "Project" (road, Tetele transfer facility, and airstrip) for approximately half of the listed items. See Section 3.3 of the Draft ToR.</p>

ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Response
7	3.4 Temporal Scope	Comment None Recommendation Please clarify if the mine life period (pg 13) includes decommissioning and mine reclamation. Considering that the all-season road would likely be used during decommissioning and mine reclamation, the temporal scope should clearly define mine life period to include these phases.	June 30: Mine life period includes decommissioning and reclamation.	The temporal scope, in Section 3.4 of the Draft ToR, includes the construction, operation, closure, and post closure.
8	5.1.1 Terrain and Geology	Comment None Recommendation We request the inclusion of specific mention of karst.	June 30: OK	Karst has been specifically mentioned in Section 5.1.1. of the Draft ToR.
9	5.1.3 Water Quality and Quantity	Comment None Recommendation The impacts of an all-season road should be assessed and monitored with all-season water quality data We request clarification on the seasonality of existing water quality samples. If samples were collected previously in winter, we request that summer samples are also required.	June 30: Samples have been, and will be, collected outside of the winter period.	n/a
10	5.1.5 Wildlife and Wildlife Habitat	Comment None Recommendation We request including specific mention of species at risk (SAR). Seasonal movements of wildlife must be monitored for at a least a full 12 months of one year, to correspond with all-season operation of road.	June 30: SARA will be included. We have planned to undertake additional wildlife surveys, the content of which will be determined by our consultant.	Species at Risk have been included separately as Section 5.1.4 and 7.3.6 of the Draft ToR. Seasonal movement has been listed.
11	5.1.6 Vegetation	Comment It is stated that the impacts on rare plants have already been assessed for the winter road (EA 2008), thus should be excluded from this EA. We acknowledge that this previous work has been done, but this information must be explicitly included in this EA to facilitate this project's evaluation. The scope of the proposed development has changed from a winter road to an all-season road. Recommendation To properly assess this new scope of development, the assessment must consider both existing and new information.	June 30: See are response to Parks Canada above. We believe the rare plant survey and assessment of potential impacts previously conducted is equally applicable to both the winter road and all season road.	Rare plants have been included in Section 5.1.7 and 7.3.9 of the Draft ToR.

ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Response
12	6.1 Project Components and Activities	Comment None Recommendation We request that the following project component be included and assessed: Monitoring and Management of Public Road Access	June 30: We tend to agree, however public access is an issue that needs to be addressed primarily in terms of hunting pressures and wildlife impacts, and access monitoring/management requirements should flow out of that.	Access control has been included with "ongoing operations and maintenance of the all season road (including access control)" in Section 6.1 of the Draft ToR.
13	7.2.4 Air quality	Comment None Recommendation We request inclusion of combustion emissions from vehicles.	June 30: See our response 10 cells up.	This has been included in Section 7.3.3 of the Draft ToR.
14	7.2.7 Species at Risk	Comment None Recommendation We request that compliance with management plans and recovery strategies required under both the NWT and Federal Species at Risk Acts be assessed.	June 30: To the extent that this is necessary, we will do so, but we don't believe it will be necessary.	Management plans are discussed in Section 6.5 of the Draft ToR.

ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Response
15	Section 10: Cumulative Effects	<p>Comment We disagree with the proponent's position that cumulative impacts need not be considered on the Ram River, which Sundog Creek and the Tetcela River flow into. This position is captured in the following statement: "The water quality cumulative effects assessment (CEA) for this DAR will similarly consider the possible impacts on tributaries of the South Nahanni River. Cumulative impacts on the Ram River, which Sundog Creek and the Tetcela River flow into, will not be considered because there is no current industrial development in that basin." (pg 25) While we acknowledge that no current development exists in the Ram River Basin, this should not negate the opportunity to collect baseline data as the basis for water quality monitoring during development activities, and the basis for assessing cumulative impacts that may occur in the future. The collection of baseline water quality data is an important component of assessing cumulative impacts, and the best opportunity to collect baseline data is before the beginning of any development. Moving the Sundog Creek streambed as described in 3.2.3 Key Lines of Inquiry would cause a significant environmental impact that could negatively impact water quality in the Tetcela and Ram Rivers.</p> <p>Recommendation We request that the collection of water quality baseline data be required as part of the cumulative effects assessment in areas where the project is the first to impact creeks, rivers and basins including the Ram River, Tetcela River and Sundog Creek. This data will allow assessment of cumulative effects in the future.</p>	<p>June 30: We question the relevance of collecting such broad water quality data which would only serve to poulate a broad, regional database. If a cumulative aspect exisits in the future from a proposed development, that development will need to consider their baseline and cumulative issues, although such a development is not forseable at present. Moreover, we do not expect water quality to be significantly impacted from moving Sundog Creek. We will propose, and we will be required to implement, sufficient mitigation to ensure this does not occur.</p>	<p>Cumulative effects will be assessed for all key lines of inquiry and subjects of note, as stated in Section 10 of the Draft ToR. Baseline water quality has been listed under Section 5.1.3 of the Draft ToR, which will include the area of the proposed Sundog realignment.</p>
16	Issues scoping summary table and detailed agenda	<p>Comment (doc) (Submitted after Due Date) Please bring a copy of the attached document to the issues scoping session on Tuesday July 8th. The agenda for the session will follow the outline in this document.</p> <p>Recommendation n/a</p>		



June 27, 2014

Ms. Sachi De Souza
Environmental Assessment Officer
Mackenzie Valley Environmental Impact Review Board
5102 50th Avenue,
Yellowknife, NT
X1A 2N7

Dear Ms. De Souza

RE: Environmental Assessment EA1415-001, Prairie Creek Mine
All Season Road and Airstrip Scoping

We refer to Canadian Zinc Corporation's (CZN's) applications for all season road permits, including an airstrip, and to the environmental assessment (EA) scoping comments submitted by Parks Canada dated June 20, 2014. Specifically, we wish to address the statement by Parks Canada that "as the airstrip is not a facility connected with the road Parks Canada cannot authorize it under the *Act* (*Canada National Parks Act*). Parks Canada therefore recommends that this component of the proposal be scoped out of the assessment." We present information below which we believe clearly indicates that the airstrip is a facility connected with the road, and that therefore Parks Canada can authorize it under the *Act*, and the component should be a part of the scope of the EA.

When Cadillac Explorations built and operated the existing winter road in 1980 and 1981, they established three airstrips along the road corridor. These were in addition to the airstrip built at the Mine. The three additional airstrips were located at Cat Camp (Km 39); just east of Wolverine Gap and the Silent Hills (Km 101); and, at Grainger Camp near the Liard River. These airstrip locations are shown on an historical document from that time, a copy of which is provided as Attachment 1. To our knowledge, all three were used to support construction of the winter road. However, we are certain that an airstrip at Cat Camp was used for this purpose because Simpson Air has provided evidence of this (Ted Grant, pers. comm.). A cleared and levelled area on the Sundog Creek floodplain near the camp was prepared by the road construction contractor for this purpose. The cleared area was integrated with the road so that both trucks and aircraft could use it. Simpson Air flew in/out crew for the road construction. The dates of these flights are not available, however Simpson Air believe they occurred in the March-April period of 1981.

The Cat Camp area is shown in the photo provided in Attachment 2. It is not clear exactly where the airstrip was located because vegetation is generally absent in the floodplain and time has obscured the airstrip outline. However, the other two airstrips Cadillac developed are clearly

visible. The one just east of Wolverine Gap and the Silent Hills is shown in the mid-distance of the photo provided in Attachment 3, while the airstrip at Grainger Camp near the Liard River is shown in a figure extracted from an EBA environmental site investigation report (2007), a copy of which is provided in Attachment 4.

Therefore, the evidence is quite categorical that Cadillac did develop airstrips as a part of the original road project, and used them to support road use. As such, one must conclude that the airstrips were facilities “connected with the road”. CZN has applied to similarly use an airstrip in the Sundog-Ram Plateau area to support the road project, and via the road, the Mine project. We could propose to use the historical airstrip at Cat Camp. However, from an environmental perspective, we believe most would agree that this is not the best location. We believe there are better locations just to the east which are some distance away from watercourses. We believe a location can be found that is not on karst or near karst features, but is proximal to the final road alignment, perhaps even part of it i.e. a slightly larger road right of way to accommodate an airstrip. Investigation of such airstrip options, and minimizing the potential for environmental impacts in the process, is CZN’s preferred way forward.

Regarding the Silent Hills airstrip, we have included the potential use of this airstrip in our amended LUP application dated June 24, 2014. However, if we propose to use this airstrip, it would only be in winter, and only after engagement with the Naha Dehe Dene Band (NDDB). This is because, at the request of the NDDB, we specifically re-aligned the road to move it out of the wetlands in this area, and the airstrip is located in the valley bottom.

One of the reasons we wish to develop an airstrip in the Sundog-Ram area is security of air access for safety, and for medical evacuation emergencies if the Mine airstrip in the valley is not accessible due to poor weather. We note that in their scoping submission, “the NDDB agrees with CZN’s rationale for an airstrip, that it will provide an alternative landing site for planes that will be carrying NDDB and other workers and therefore increases safety”. We also note that this is not a new issue. A second airstrip was considered previously for this reason. This is described in the first part of a report by Norex Oilfield Consultants, a copy of which is provided in Attachment 5. We believe the report dates from 1980. We understand that Cadillac had planned to proceed with an all season road and second airstrip, but went bankrupt before an environmental assessment was completed.

Based on the discussion above, it is our contention that an airstrip in the Sundog-Ram Plateau area would be a facility associated with, and an integral part of, the access road. As such, we believe the proposed airstrip, as described, would be entirely consistent with the definition of a “facility connected with that road”, and Parks Canada should have no impediment authorizing it in terms of section 41.1 of the *Act*. Therefore, the airstrip should remain scoped into the EA.

In addition to the above, we are somewhat puzzled by Parks Canada’s stated difficulty with respect to authorizing an airstrip. It is common knowledge that local air charter companies fly into and land in the Nahanni National Park Reserve on a frequent basis annually. This includes planes on floats as well as on wheels. Locations where planes on wheels land or have landed include the Flat River/South Nahanni confluence, Marango Creek, the Moose Ponds and

Rabbitkettle Hot Springs, amongst others. Therefore, it seems to us that authorization of the airstrip we have proposed could be accomplished by Parks Canada without the use of section 41.1 of the *Act*.

Regarding scoping, the historical aspect of the airstrips raises some interesting considerations. It could be argued that the reactivation of airstrips at Cat Camp and the Silent Hills should be excluded from the scope of development since they were authorized previously, and thus are grandfathered from further EA under the provisions of the *Mackenzie Valley Resource Management Act*. Since we are proposing a different location for the Cat Camp airstrip, we will not debate this point and instead agree that the airstrip should be a part of the scope of development.

If you have any questions, please contact us at 604 688 2001.

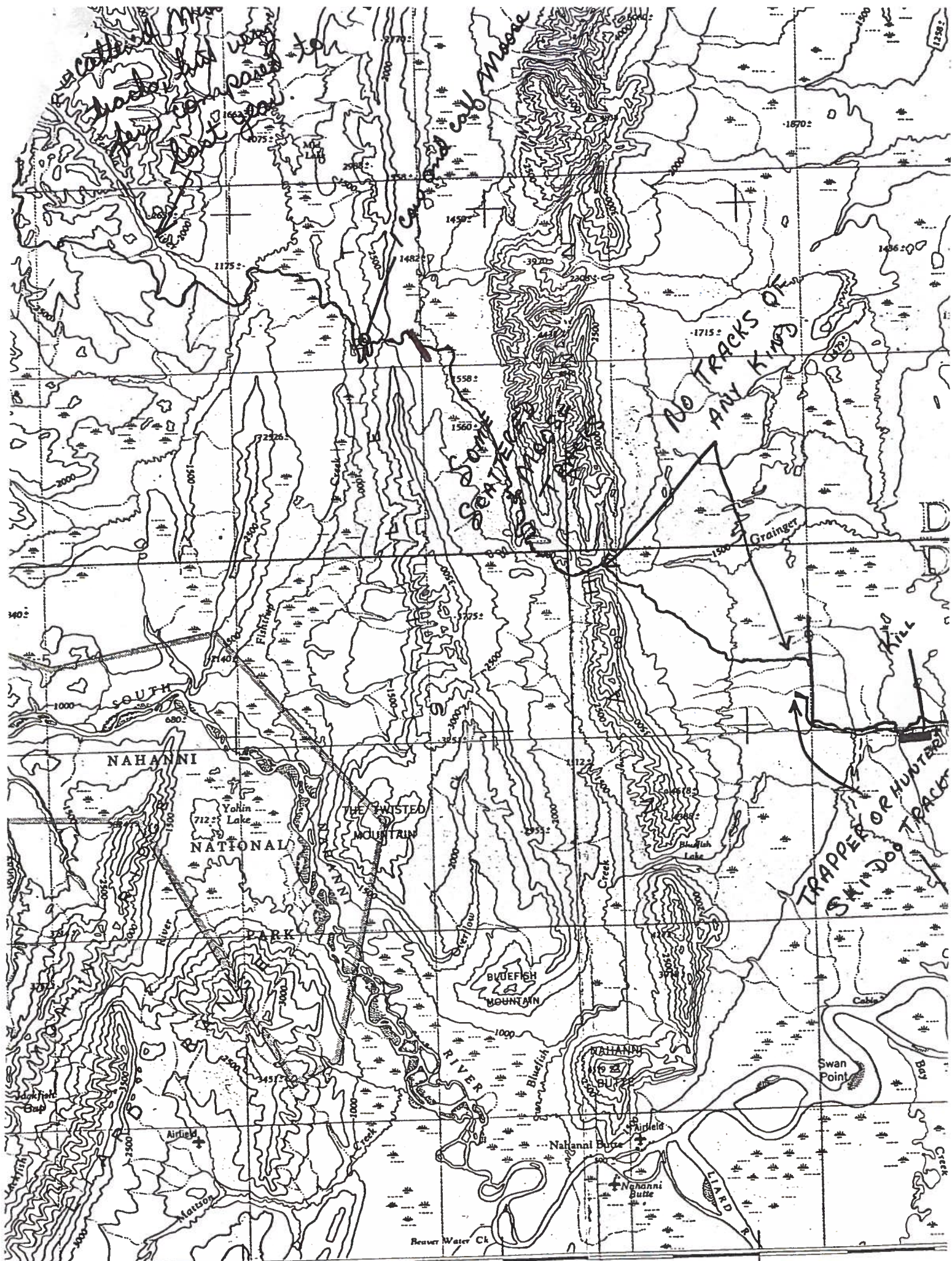
Yours truly,
CANADIAN ZINC CORPORATION

A handwritten signature in blue ink, appearing to read 'D. Harpley', is positioned below the typed name.

David P. Harpley, P. Geo.
VP, Environment and Permitting Affairs

Attachment 1





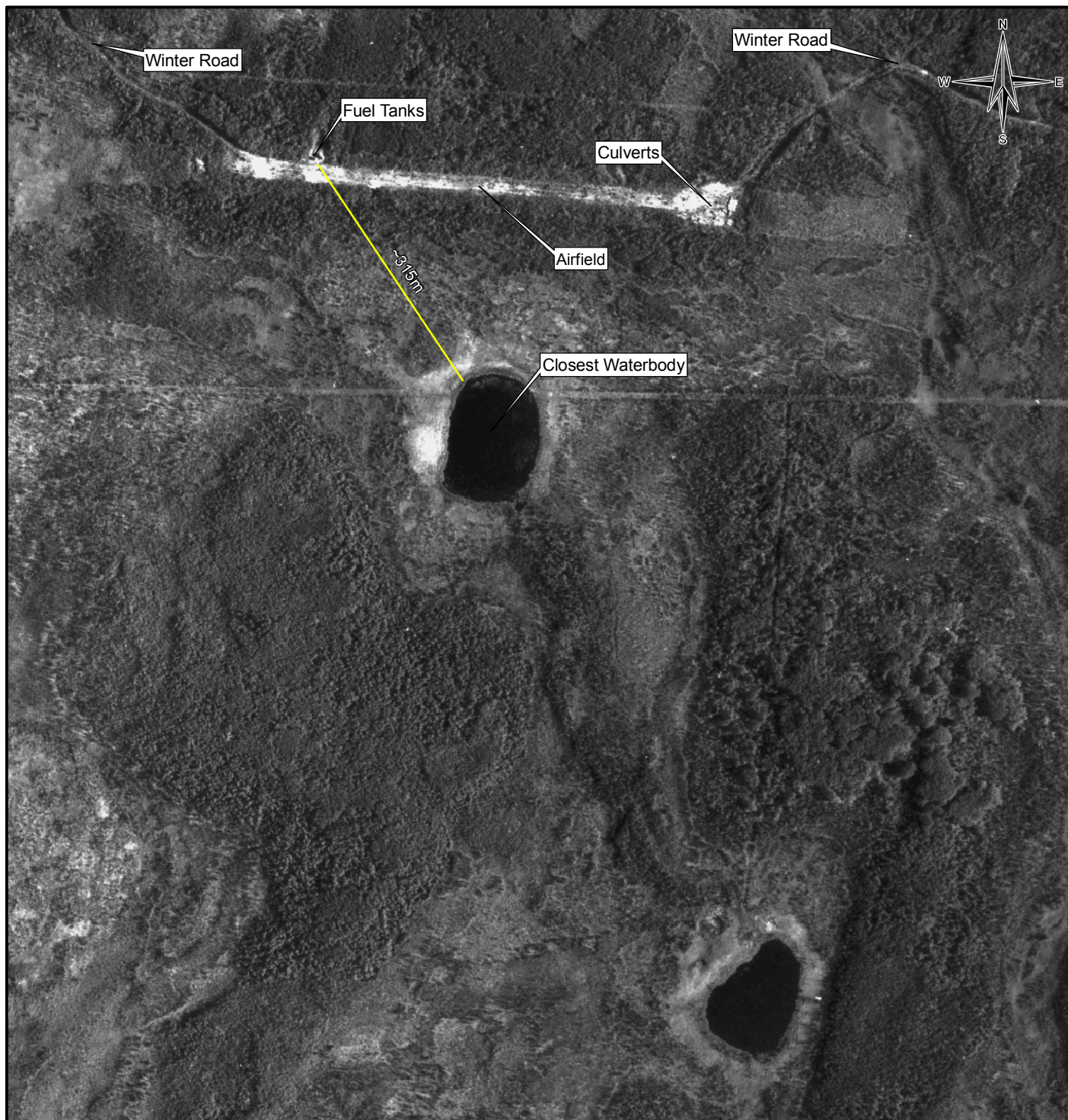
Attachment 2



Attachment 3



Attachment 4



LEGEND

NOTES

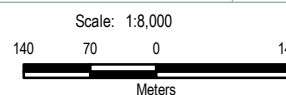
Base data source:
1994 Airphoto (NAPL)

GRAINGER FUEL CACHE ENVIRONMENTAL SITE INVESTIGATION

1994 Airphoto

PROJECTION
UTM Zone 10

DATUM
NAD83



FILE NO.
1900020-001-Figure2

PROJECT NO.
1900020-001

DWN
TJS

CKD
MB

REV
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OFFICE
EBA-VANC

DATE
August, 31 2006

EBA Engineering
Consultants Ltd.



Figure 2

Attachment 5

CADILLAC EXPLORATIONS LIMITED
PRAIRIE CREEK PROJECT
N.W.T

AIRSTrip
ALL WEATHER ROAD
ORE HAUL ROAD

EVALUATION AND CONSTRUCTION RECOMMENDATIONS

jcm

I N T R O D U C T I O N

Cadillac Exploration's minesite is situated in a remote valley which is totally unserviceable for nine months of the year except by air. The very nature of the Prairie Creek location further dictates light aircraft and V. F. R. flying conditions only, essentially limiting access to fair weather, clear skies and little cargo.

The present airstrip of approximately 915 meters, is ringed immediately on every side by mountains, some of which are in excess of 1524 meters precluding modification entirely.

Another contributing factor to the desirability of a larger strip serviceable in practically any weather, night or day, is the importance of a steady cash flow. The valuable copper/silver concentrate could be airlifted out, affording a constant return so necessary to any private endeavour. In this case, nine months is a prohibitive period to wait for a return on an investment, without the contributing factors of exorbitant interest rates and tight money situations.

Of paramount importance is prompt access to medical aid. With the number of personnel on site at approximately two hundred, constant support is mandatory. The very nature of construction and mining operations indicates a high frequency of accidents and injury, in which case immediate evacuation may be essential. Several instances have already demanded removal of the patient. Two in particular have been delayed because of weather, though fortunately the patient's life was not in danger.

A larger accessible airstrip, offering an instrument approach at an altitude of only several hundred feet, day or night, such as possible in the Sundog Valley would permit aircraft participation in almost any weather condition or hour of the day.

Additional public benefits are immediately apparent. The Forestry Service, in particular, would have a large tanker base available at a centre presently far from an adequate facility.

- Continued-

It may well be, too, that such a location will afford an emergency landing facility for most aircraft in the vicinity. In summation, an all weather landing strip is much more than desirable. It is possible, practical and imperative. The interconnecting roadways too, are a necessity in the economical operation of the mill.



DEHCHO FIRST NATIONS

Box 89, Fort Simpson, N.W.T. X0E 0N0
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E-mail: dcfn@dehcho.org



June 19, 2014

Sachi De Souza
Mackenzie Valley Environmental Impact Review Board
200 Scotia Centre
5102-50th Ave Yellowknife, NT X1A 2N7

VIA EMAIL: sdesouza@reviewboard.ca

Re: Canadian Zinc Corporation (CZN) Proposed Terms of Reference, Prairie Creek All Season Road Project

The Mackenzie Valley Review Board (MVRB) has requested comments on CZN's draft terms of reference for the Prairie Creek all season road project. Phase 1 of the project includes building an all-season from Prairie Creek Mine to the Tetcela Transfer Station and a second air-strip built on the Ram Plateau. Phase 2 of the project includes building a road from the Tetcela Transfer Station to the Liard Highway and the operation of a barge across the Liard River.

Dehcho First Nations (DFN) supports letters or comments from Dehcho members and member communities regarding the terms of reference for the proposed all-season road.

Attached with this letter is a comment table with information to CZN and MVEIRB regarding questions or proposed improvements to the draft Terms of Reference provided by CZN.

Mahsi,

Dahti Tsetso

cc.

Chief Mike Matou, Nahanni Butte Dene Band



Nahanni National Park Reserve
10001 100 Street
Fort Simpson, NT X0E 0N0

June 20th, 2014

Mackenzie Valley Environmental Impact Review Board
4910 50th Avenue, 2nd Floor
PO Box 2130
Yellowknife NT X1A 2P6
Via email:

Re: Prairie Creek All Season Road and Airstrip, Canadian Zinc Corporation. (File EA 1415-01)

Dear Ms. De Souza:

The Parks Canada Agency is pleased to provide the attached comments regarding Canadian Zinc Corporation's (CZN) draft Terms of Reference to the Mackenzie Valley Environmental Impact Review Board. Parks Canada looks forward to continued participation in the environmental review of this project.

If you should have any questions please feel free to contact Allison Stoddart at (819) 827-3436 or Allison.stoddart@pc.gc.ca.

Sincerely,

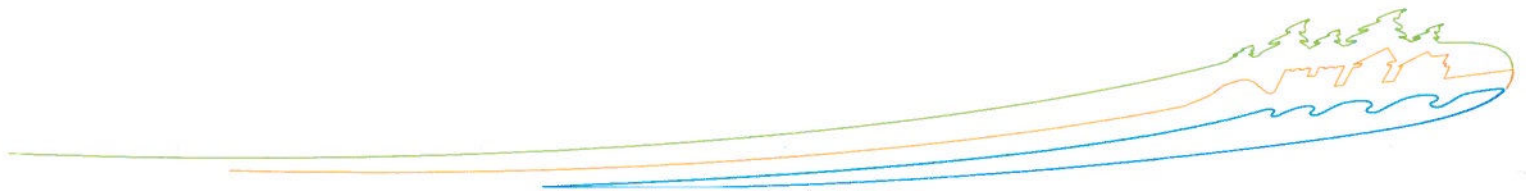
David Britton,
Superintendent,
Nahanni National Park Reserve

c.c. Robert Kent, Field Unit Superintendent, Southwest Northwest Territories Field Unit.



Parcs
Canada

Parks
Canada



Mackenzie Valley Environmental Impact
Review Board-EA Scoping Phase
***Prairie Creek All Season Road and
Airstrip – EA1415-01***

*Parks Canada Comments on Draft
Developer's Terms of Reference*

June 2014

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Appendix 1: Requirements for the Conservation of Cultural Resources

1 Introduction to Nahanni National Park Reserve of Canada

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.

Nahanni National Park Reserve of Canada (NNPR) was established in 1976, and at that time consisted of an area of 4,766 square kilometers. In 2009, NNPR was expanded to an area of approximately 30 000 square kilometers, making it the third largest national park in Canada. The expansion occurred to protect a significant portion of the South Nahanni River watershed, the unique features of the Ram plateau, and the globally unique North Nahanni Karst.

Nahanni National Park Reserve of Canada exists within the Dehcho, a traditional homeland of the Dene for centuries. The tradition of Aboriginal use continues to this day in the park reserve and is provided for under the *Canada National Parks Act*, Section 40. The lands that are now NNPR have benefited from the past, and ongoing, stewardship of the local First Nations. The Dehcho First Nations and the Government of Canada are negotiating self-governance, land use planning and resource management issues through the Dehcho Process. As part of this process, Dehcho First Nations and Parks Canada created the Naha Dehé Consensus Team comprised of representatives from both organizations. This team allows the Dehcho First Nations and Parks Canada to work together cooperatively on park management issues.

1.1 World Heritage Site

Nahanni National Park Reserve of Canada was among the first seven World Heritage Sites in the world, and Canada's first site given World Heritage Site status by the United Nations Education, Science and Cultural Organization's World Heritage Convention. World Heritage Sites are parts of the world's natural and cultural heritage that are so outstanding or scientifically significant that their protection and preservation are considered to be of concern to the world community. This status, conferred in 1978, gives international recognition to the original NNPR as a place exhibiting:

- Outstanding examples of major stages in the earth's evolutionary history;
- Significant ongoing geological processes; and
- Superlative natural phenomena, formations and features of exceptional natural beauty.

Parks Canada's mandate and conservation practices reflect the responsibility of this designation in both the protection and presentation of the park.

1.2 Canadian Heritage River

In 1987, the portion of the South Nahanni River within NNPR was designated as a Canadian Heritage River. The Canadian Heritage Rivers System has been established by federal, provincial and territorial governments to recognize Canada's outstanding rivers and to ensure their long-term protection and continued enjoyment by Canadians. The South Nahanni River provides outstanding recreational opportunities in a wilderness area of great scenic beauty.¹

¹ Parks Canada. 2010. *Nahanni National Park Reserve of Canada Naha Dehé Management Plan*.

1.3 Parks Canada Regulatory Role and Environmental Assessment

The proposed Prairie Creek mine is surrounded by NNPR, but is not on Parks Canada lands. The expansion of NNPR occurred in a way that the mine could operate from within an area excluded from the NNPR. Approximately half of the proposed all season road is contained within NNPR, traversing from the eastern boundary of the park, through the karst, and into the mountain valleys toward the mine site. As the mine was pre-existing, its operation was anticipated during the negotiations for the expansion of NNPR. In the *Canada National Parks Act*, the government of Canada specifically allowed for a mining access road (s. 41.1) for this mine. Parks Canada is committed to working with Canadian Zinc Corporation towards our respective goals and an MOU is in place between the two organizations to frame this relationship.

On April 16th, 2014 Canadian Zinc Corporation applied to both the Mackenzie Valley Land and Water Board (MVLWB) and Parks Canada for permits to build and operate an all season road and air strip. Following a preliminary screening, the MVLWB referred the application to the Mackenzie Valley Environmental Impact Review Board (MVEIRB) for environmental assessment. It is Parks Canada's expectation that the MVEIRB scope the project activities both inside and outside NNPR into the environmental assessment. Parks Canada will use this environmental assessment process to meet the *Mackenzie Valley Resource Management Act* Part 5 environmental assessment requirements for the requested permits. Parks Canada will participate in this environmental assessment process as a responsible minister, providing expert advice on the potential impacts of the proposal on NNPR.

In addition, Parks Canada must ensure that all potential impacts to species at risk are well understood so that recommendations, mitigations and plans meet obligations pursuant to the *Species at Risk Act*. Please note that under section 79(2) of the *Species at Risk Act*, the person required under an Act of Parliament to ensure that an assessment of environmental effects is conducted must identify the adverse effects of the project on the listed wildlife species and its critical habitat and, if the project is carried out, must ensure that measures are taken to avoid or lessen those effects and to monitor them. The measures must be taken in a way that is consistent with any applicable recovery strategy and action plans.

1.4 Vision and Objectives

The "Nahanni National Park Reserve of Canada Naha Dehé Management Plan"² describes the vision of the Naha Dehé (the Dene name includes Nahanni National Park Reserve and the South Nahanni watershed as a whole). It states:

Dene culture, so intimately linked to the ecology of the Naha Dehé, is respected in this place of mystery, spirituality and healing. The life sustaining waters of Naha Dehé flow freely, protected through the wisdom and guidance of the Dehcho elders. Traditional subsistence harvesting continues as an integral and sustainable part of the ecosystem, occurring in accordance with Dene laws, values and principles.

Naha Dehé protects a wilderness watershed in the Mackenzie Mountains, where fires and floods shape the land, and naturally-occurring plant and animal species thrive. The park is a model of cooperative management, where excellence in the conduct of science is promoted and cultural resources are treated with care.

World-class opportunities abound to experience wilderness and the natural and cultural heritage of Naha Dehé.

² Parks Canada. 2010. *Nahanni National Park Reserve of Canada Naha Dehé Management Plan*.

The following are a few of the objectives identified in the Nahanni National Park Reserve Management Plan which are relevant to this process:

The high level of biodiversity in Naha Dehé is retained, including naturally occurring plant and animal species. Unique and sensitive landscape features are protected.

Natural ecological processes remain the primary forces shaping the ecosystem.

The cultural heritage and values of Naha Dehé are protected and management respects traditional users and interests.

The waters of Naha Dehé are high quality and unimpaired by activities inside and outside park boundaries.

The definition used by Parks Canada for the term “ecological integrity” may assist the Mackenzie Valley Environmental Impact Review Board (MVEIRB) in their assessment of whether there are likely to be adverse impacts to the ecological integrity of Nahanni National Park Reserve. Ecological integrity is defined in the *Canada National Parks Act* as follows:

“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.

2 Parks Canada Review of Proponent Draft Terms of Reference

The following are some overarching Parks Canada comments on issues found throughout the Draft Proponent’s Terms of Reference.

- The proponent indicates that a second air strip will be built on the Ram Plateau near the road. The *Canada National Parks Act* (the *Act*) restricts the land uses which are permissible in a national park. In order to provide authority to permit the Prairie Creek access road, a special amendment to the *Act* was made when the Park was expanded (Section 41.1). This amendment permits the access road, sites of storage and other facilities connected with the road. Therefore, as the airstrip is not a facility connected with the road Parks Canada cannot authorise it under the *Act*. Parks Canada therefore recommends that this component of the proposal be scoped out of the assessment.
- Parks Canada expects the proponent’s assessment report for this proposal to be a standalone document, and not just an assessment of those impacts which are over and above the impacts of the winter road. As such, relevant content from the assessment of the winter road should be included in the Developer’s Assessment Report (DAR) for this proposal.
- In accordance with the *Mackenzie Valley Resource Management Act*, the Canadian National Parks Act and associated policies, Parks Canada expects the assessment of impacts to cultural resources (also known as heritage resources) be included in the scope of assessment.
- In accordance with the *National Parks Building Regulations* Parks Canada expects the assessment to provide a detailed description of any modifications required to the Tetcela Transfer Facility (TTF) for all season road use including: designs for any new or modified physical structures; details of operational use; and decommissioning.

2.1 Specific comments on Proponent’s Draft Terms of Reference

Section 1.1 page 7-Parks Canada recommends that the proponent outline the economic feasibility of the proposal including what specific conditions need to be in place for both phases of the project to go

forward. Due to the phased approach of this proposal, Parks Canada would like to better understand the likelihood of phase one of the project going ahead without phase two, which would result in the storage of a large amount of concentrate at the TTF within NNPR.

Section 1.1, page 7, Section 3.2.2, page 11 – The proponent indicates that the road bed from the mine site (km 0) to cat camp (km 39) is already of all season quality. Parks Canada would like to clarify this statement with the following information:

- The boundary of NNPR starts at km 17 when moving east on the road from the mine site.
- The right of way from km 24-33 is currently not permitted as an all season road, however, all season use can be approved by the Superintendent of NNPR subject to plans and designs outlined in Land Use Permit Parks 2012_L001. Inspections found many sections of the old road no longer exist along the steep talus slopes in this area.
- The old right of way between km 33 and Cat Camp (km 39) poses many engineering challenges for an all season road as a result of the dynamic nature of the braided creek channel and numerous crossings over fish habitat.
- Parks Canada expects that many significant sections of the right of way between km 24 and 39 will need significant construction and engineering for all season use.

Section 1.1, page 7, Section 1.3, page 9, Section 3.1, page 10, Section 3.2.3, page 12, Section 6.1, page 17- The proponent indicates that they intend to build a second airstrip on the Ram Plateau near the road. *The Canada National Parks Act (the Act)* provides that no public lands or right or interest in public lands within a national park may be disposed of except as provided by the *Act*, and further restricts the land uses which are permissible in a national park. In order to provide authority to permit the Prairie Creek access road, a special amendment to the *Act* was made when the Park was expanded (Section 41.1). This amendment allows for the construction of an access road, sites of storage and other facilities connected with the road. Parks Canada can therefore not authorize the proposed airstrip under the *Act*. Parks Canada recommends that this component of the proposal be scoped out of the assessment.

Section 3.1, page 10- The document must be consistent in the use of the terms “all season road” and “all weather road”.

Section 3.2.2, page 11- The proponent has indicated that they will not consider impacts on rare plants as they have already completed surveys for EA08-09. Parks Canada would like to outline that the only survey done on rare plants for the EA08-09 was in the Polje bypass area of the road. Furthermore, road ecology literature demonstrates the potential impacts of an all season road to be much different than impacts from the winter road. Summer construction and operation of the road could damage or destroy rare plants. Endemic plant species, rare species and unique genetic composition are possible, perhaps probable, because the karst area has not been glaciated for at least 200 000 to 250 000 years³. If rare plant populations are impacted along the road, the survival of the populations in the park may be impacted. Parks Canada recommends that impacts to rare plants be included in the assessment.

Section 3.2.2, page 11, Section 7.2.14, page 23 -The proponent has outlined that potential impacts to cultural resources will not be assessed because two field investigations were completed for EA08-09. Parks Canada does not consider these investigations to be adequate for the purpose of assessing an all season road and recommends that the assessment include potential impacts on cultural resources. The following outlines what will be required with respect to assessing impacts to cultural resources:

To date, there has not been an overall archaeological survey done in this area of Nahanni National Park Reserve, except for testing and a helicopter flyover at two locations related to the Prairie Creek Mine winter road⁴. There is potential to encounter surface and subsurface heritage

³ Pers. Comm. Bruce Bennett, Nature Serve

⁴ Prager, Gabriella. 2009 Prairie Creek Mine Access Road Archaeological Excavations, 2009

resources and landscape features as a result of the all season road proposal. In order to ensure that there is no impact on archaeological resources associated with the road construction, resource exploitation (such as gravel extraction) and other associated activities (such as work camp locations, access roads, right of way, bridge crossings) an archaeological overview assessment followed by an archaeological impact assessment is required to determine the potential impact to heritage resources.

The first step is to conduct an archaeological overview assessment to determine whether an archaeological impact assessment is required. The archaeological overview assessment involves:

- a review of archaeological work completed in the area including a list of archaeological sites recorded within 1km of the proposed road to be obtained from the responsible federal and territorial authority;
- a review of traditional knowledge and place names associated with the area including consultation with the local First Nation Community (Nahanni Butte); and
- identifying the potential presence and absence of archaeological resources using predictive modeling within areas to be designated as high, medium and low potential.

The results of the archaeological overview assessment will guide requirements for an archaeological impact assessment. The impact assessment will determine the potential to encounter archaeological and cultural resources at the site of the proposed road works and ancillary activities; and if any are found, to ensure that they are properly handled, documented and preserved.

In addition to assessing impacts on archaeological resources, some areas may hold value to local communities, such as traditional harvesting areas, trails & trail systems, portages and river corridors. The heritage value of the areas where the proposal will take place needs to be confirmed through traditional knowledge.

The proponent will need to refer to Appendix I of this document which outlines the requirements for the conservation of cultural resources.

Section 3.2.3, page 12- This section outlines that there are likely to be one or two locations where the stream bed will need to be moved in the Sundog Creek area. Such activities will result in potential losses of fish habitat for months to several years as the newly created stream develops benthic macroinvertebrate habitat and communities necessary for fish. Parks Canada recommends that this information be taken into consideration in the assessment of impacts.

Section 3.2.3, page 12- Parks Canada recommends that the key lines of inquiry include the potential impact to karst topography. With many outstanding examples of karst formations and some unique features found nowhere else in the world, the Nahanni North Karst area is an internationally outstanding example of karst landscape⁵. Karst terrain is geologically less stable and may be vulnerable to collapse or significant erosion with construction on the surface. The vulnerability of karst landscapes, even after past use, has been demonstrated by the sudden collapse of rock under highways, bridges, buildings, vehicles and other structures. It is recommended that the environmental assessment include information on the geotechnical stability of the road under different hydrological scenarios for the planned volume and weight of vehicular use through the karst area and mitigation to eliminate or reduce impacts to the karst.

Section 3.3, page 13- Parks Canada recommends that the geographic scope of harvesting include the area of the road located within NNPR.

⁵ Ford, D.C. 2001. *Postscript to the McMaster University 1974 Report on the Nahanni North Karst*. McMaster University.

Section 3.3, page 13- The proponent outlines the geographic scope for water quality and quantity as “within the immediate basin crossed by the road”. Parks Canada would like to note that subsurface water flow in the karst area (approximately kilometre 43 to 83) is different than the surface watershed flow, therefore Parks Canada recommends that the impacts on both watersheds be considered in the area of karst. In addition, if multiple potentially impacted watersheds come together, consideration of cumulative impacts must occur. (Parks Canada is interpreting the term “basin” in the ToR to mean “watershed”)

Section 3.3, page 13- Parks Canada recommends that the geographic scope for species at risk be specific to the individual species being assessed in order to address potential population level impacts. Some of the species at risk within NNPR include: Wood Bison (SARA Schedule 1 Threatened), Olive Sided Flycatcher (SARA Schedule 1 Threatened), Woodland Caribou-Boreal (SARA Schedule 1 Threatened) and Northern Mountain Populations (SARA Schedule 1 Special Concern), Peregrine falcon (SARA Schedule 1 Special Concern), Rusty Blackbird (SARA Schedule 1 Special Concern), Short Eared Owl (SARA Schedule 1 Special Concern) and Yellow rail (SARA Schedule 1 Special Concern).

Section 3.3, page 13- Parks Canada recommends that the geographic scope for wildlife be specific to the individual species being assessed. This would include their seasonal and migratory ranges and areas needed for key life cycle requirements such as mating, calving, etc.

Section 3.3, page 13- Parks Canada recommends that the geographic scope for assessing impacts on the ecological integrity of Nahanni National Park Reserve follow the geographic scopes identified for the valued components being assessed. The geographic scope for assessing impacts on cultural resources must be specific to the potentially impacted cultural resource. The geographic scope of assessment for visitor experience must be based on the appropriate viewsapes in the area.

Section 3.4, page 13- Parks Canada recommends that the temporal scope also include the decommissioning of the road including removal of road crossing structures and restoration of instream and riparian habitats.

Section 5.1.1 page 14- With regard to specific information requirements, Parks Canada would like to note that existing locations of permafrost are not available for the entire winter road and will therefore need to be provided for the proposed all season road. This information is important for determining the extent and volumes of road building materials required as there are different requirements when constructing a road over permafrost.

Section 5.1.3, page 15- Parks Canada recommends that water quality data be gathered (e.g. dissolved oxygen concentrations, water turbidity) to supplement current data in order to create water quality guidelines that describe the natural ranges in water quality at the proposed stream crossings. This data could then be used as the basis for future monitoring of impacts to water quality and aquatic life.

Section 5.1.4, page 13- With regards to baseline information for aquatic fish habitat, Parks Canada recommends that more information be provided for the Sun Dog Creek area where the re-alignment is being considered. For example, what habitat types will be lost in the re-alignment (runs, riffles, pools, etc..) What habitat types will be re-created in the new channel and how will those habitat types compare to the original?

Section 5.1.5, page 15-16- As noted in the document additional wildlife and wildlife habitat surveys will need to be done to collect information in the spring, summer and fall seasons. Parks Canada recommends that these surveys be designed and conducted in a scientifically defensible manner.

Section 5.1.6, page 16- Park Canada does not agree that the baseline for vegetation in proximity to the road is adequately established. The only vegetation work that has been done in the road area is at least 20 years old, other than the rare plant survey done in the Polje By-pass area. Parks Canada recommends that additional work be done to establish an up to date vegetation baseline characteristic of the entire length of the road.

Section 6.1, page 17- Parks Canada recommends that this section include consideration of alternative means to the proposal, including alternative routes or re-alignments. All of the project components should be described for key alternate routes or re-alignments.

Section 6.1, page 17- Parks Canada recommends that the project components include the new borrow pits and any associated access roads.

Section 6.1, page 17- Parks Canada recommends that the project components include a detailed design of the Tetcela Transfer Facility (TTF) as well as a fire risk analysis of the facility which may provide recommendations for proactive management.

Section 7.2.2, page 20- Parks Canada recommends that this section includes specific impacts from the increased storage of concentrates at the Tetcela Transfer Facility.

Section 7.2.6, page 21- Parks Canada recommends that this section includes the specific area around the Tetcela Transfer Facility.

Section 7.2.10, page 22- Parks Canada recommends that this section includes the change of vegetation due to fire management around the TTF (ie fire suppression will occur in the area where it has not in the past).

Section 7.2.11, page 22- Parks Canada recommends that the section on traditional land use include the effects of increase access on traditional users.

Section 7.2- Parks Canada recommends that this section include the potential of the project to increase forest fire risk. This should include a classification of forest cover fuel types along the Right of Way to indicate potential risk for forest fires.

Appendix 1 – Requirements for the Conservation of Cultural Resources

The objectives of the archaeological impact assessment include:

- Determine the likelihood and presence of cultural resources in areas on the site to be disturbed by construction and all ancillary activities: archaeological sites (including features and artifacts), cultural landscapes and heritage buildings
- Identify and document the presence and extent of any historic features and artifacts, such as structural remains, activity areas and historic trails.
- Identify and document the presence and extent of any pre-contact features, artifacts and activity areas.
- Collect and provide provenience information for all uncovered artifacts.
- Provide an assessment of potential impacts to cultural resources by construction and all ancillary activities.
- Based on the assessment of potential impacts to the cultural resources provide recommendations to eliminate or minimize these impacts.

Requirements for assessing impacts to cultural resources:

- Detailed locations of proposed road routing and associated impacts (such as camp areas, gravel extraction areas);
- Description of the nature and depth of the surface and subsurface impacts for the road construction including, road bed, right of way, tree removal, bridges for water crossings, other.
- Archaeological overview assessment will incorporate traditional knowledge and potential to impact from an all season development within NNPR.
- Application and receipt of an on-line Parks Canada Research and Collection permit for work done in NNPR.
- Confirmation of the presence or absence of archaeological resources through implementation of a surface reconnaissance and systematic sub-surface testing program in areas determined to have potential. Testing would be required in all areas with high potential, while scaled approach to be used in areas with medium to low potential.
- Archaeological site data will be provided in a shapefile compatible with archGIS.
- Site recording will follow the Parks Canada Archaeological Recording Manual. Site numbers to be provided by PCA with Borden Numbers obtained from the NWT.
- Submission of a report on the method and results of the impact assessment that includes a full inventory of all artifacts, features and documentation associated with the archaeological field work.
- Evaluation of the archaeological and cultural heritage potential of the impacted areas and appropriate recommendations with respect to construction activities to eliminate or minimize the impact on cultural resources.

June 20, 2014

Sachi De Souza
Environmental Assessment Officer
Mackenzie Valley Review Board
Ph: (867) 766-7054
Fx: (867) 766-7074
sdesouza@reviewboard.ca

Re: Review of Developers Draft Terms of Reference for EA1415-01, Prairie Creek All-Season Road and Airstrip Project, Canadian Zinc Corporation

Dear Ms. De Souza,

The following are comments from the Canadian Parks and Wilderness Society – NWT Chapter (CPAWS-NWT), regarding Canadian Zinc's Draft Terms of Reference for EA1415-01

Section 3: Scope Considerations

We request that the scope of development is clarified with the following additions:

- A map of the proposed all weather road, overlaid with the existing winter road alignment.
- A map outlining where the proposed air strip will be constructed. "... Somewhere close to the road..." (pg 10) does not provide a useful representation of where the airstrip will be located.
- A clear definition of "comparatively less activity" (pg 10) in regards to the usage of the proposed airstrip compared to the current airstrip: frequency of use and types of aircraft must be included to assess the impact of the project.

3.2.2 Effects Assessments - Valued Components

Air Quality

- We request that other emissions such as exhaust from vehicles should be assessed beyond the winter season

Water Quantity/Quality

- We request that the assessment consider both surface and groundwater

3.2.3 Key Lines of Inquiry

To better understand the location and scale of the Phase 1 development we request that the proponents provide a visual representation of the following:

- A map depicting the location of the second airstrip, the possible “minor realignment of road” and the location of the stream sections that may be moved “1 or 2 locations of stream may need to be moved to accommodate the road” (pg 12)
- For Phase 2 we request that key lines of inquiry are presented in a manner that clarifies that impacts will be assessed in all seasons. For example, “the potential for impacts on wildlife in **each season** from sensory disturbance, possible truck-animal collisions and hunting pressures associated with increased accessibility” (pg12)

3.3 Geographic Scope of Assessment

- The proposed second air strip is not included in the Geographic Scope of Assessment. In order to properly assess the impact of the project on each valued component, the precise geographic scope of the airstrip must be included in the Terms of Reference.
- Based on the information provided, we assume that the geographic scope for each valued component (listed in kilometres) was arbitrarily assigned. We request a clear definition of “practical effect” to quantify the geographic scope of the impact of the road.
- The rationale for considering water quality and quantity dilution impacts assumes that the basin crossed by the proposed all season road is isolated from any other basins. We request that the geographic scope of the assessment include hydrological mapping as evidence that the basin crossed by the all season road is in fact isolated.

3.4 Temporal Scope

- Please clarify if the “mine life period” (pg 13) includes decommissioning and mine reclamation. Considering that the all-season road would likely be used during decommissioning and mine reclamation, the temporal scope should clearly define “mine life period” to include these phases.

Section 5: Description of Existing Environmental and Baseline Conditions

5.1.1 Terrain and Geology

- We request the inclusion of specific mention of karst.

5.1.3 Water Quality and Quantity

- The impacts of an all-season road should be assessed and monitored with all-season water quality data.
- We request clarification on the seasonality of existing water quality samples. If samples were collected previously in winter, we request that summer samples are also required.

5.1.5 Wildlife and Wildlife Habitat

- We request including specific mention of species at risk (SAR).
- Seasonal movements of wildlife must be monitored for at a least a full 12 months of one year, to correspond with all-season operation of road.

5.1.6 Vegetation

- It is stated that the impacts on rare plants have already been assessed for the winter road (EA 2008), thus should be excluded from this EA. We acknowledge that this previous work has been done, but this information must be explicitly included in this EA to facilitate this project's evaluation. The scope of the proposed development has changed from a winter road to an all-season road. To properly assess this new scope of development, the assessment must consider both existing and new information.

Section 6: Development Description

6.1 Project Components and Activities

- We request that the following project component be included and assessed: "Monitoring and Management of Public Road Access".

Section 7: Assessment of Environmental Impacts and Cumulative Effects

7.2.4 Air quality

- We request inclusion of combustion emissions from vehicles.

7.2.7 Species at Risk

- We request that compliance with management plans and recovery strategies required under both the NWT and Federal *Species at Risk Acts* be assessed.

Section 10: Cumulative Effects

We disagree with the proponent's position that cumulative impacts need not be considered on the Ram River, which Sundog Creek and the Tetcela River flow into. This position is captured in the following statement:

"The water quality cumulative effects assessment (CEA) for this DAR will similarly consider the possible impacts on tributaries of the South Nahanni River. Cumulative impacts on the Ram River, which Sundog

Creek and the Tetcela River flow into, will not be considered because there is no current industrial development in that basin.” (pg 25)

While we acknowledge that no current development exists in the Ram River Basin, this should not negate the opportunity to collect baseline data as the basis for water quality monitoring during development activities, and the basis for assessing cumulative impacts that may occur in the future. The collection of baseline water quality data is an important component of assessing cumulative impacts, and the best opportunity to collect baseline data is before the beginning of any development.

Moving the Sundog Creek streambed as described in 3.2.3 Key Lines of Inquiry would cause a significant environmental impact that could negatively impact water quality in the Tetcela and Ram Rivers.

We request that the collection of water quality baseline data be required as part of the cumulative effects assessment in areas where the project is the first to impact creeks, rivers and basins including the Ram River, Tetcela River and Sundog Creek. This data will allow assessment of cumulative effects in the future.

Regards,

A handwritten signature in black ink, appearing to read "Kris Brekke".

Kris Brekke
Executive Director
Canadian Parks and Wilderness Society-NWT Chapter
Box 1934 Yellowknife, NT X1A 2P5
kris@cpaws.org



June 20, 2014

VIA REGISTRY UPLOAD

Sachi De Souza
Environmental Assessment Officer
Mackenzie Valley Environmental Impact
Review Board
200 Scotia Center
P.O. Box 938, 5102-50th Avenue
Yellowknife, NT
X1A 2N7

Dear Ms. De Souza,

**Comments and Recommendations on Developer's Proposed Terms of Reference
for the Canadian Zinc Corporation Prairie Creek All-Season Road and Airstrip
Project (File Number: EA1415-01)**

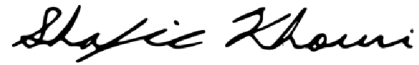
On June 9, 2014, the Mackenzie Valley Environmental Impact Review Board (MVEIRB) requested review comments and recommendations on Terms of Reference (TOR) proposed by the Canadian Zinc Corporation (CZN) for the environmental assessment of its Prairie Creek All-Season Road and Airstrip Project (the Project).

Please find the result of GNWT review attached, where all GNWT departments with responsibilities related to the Project considered the TOR. Attached to this cover letter are comments and 14 total recommendations from the departments of Environment and Natural Resources; Justice; Transportation; and Industry, Tourism and Investment; as well as from Prince of Wales Northern Heritage Center.

GNWT looks forward to continued and active participation and dialogue with CZN, other parties and MVEIRB throughout the environmental assessment of the Project.

If you have any questions, please contact me at shafic_khouri@gov.nt.ca or (867) 765-6634.

Sincerely,

A handwritten signature in black ink, appearing to read 'Shafic Khouri', written in a cursive style.

Shafic Khouri
Project Assessment Analyst

Attachments:

Recommendations on Developer's Proposed Terms of Reference
Draft WWHPP and WEMP Guideline Definitions

Attachment:
Government of the Northwest Territories
Comments and Recommendations on Developer's Proposed Terms of Reference

Environmental Impact Assessment and Review of the
Canadian Zinc Corporation Prairie Creek All-Season Road and Airstrip Project
(File Number: EA1415-01)

20 June 2014

Acronyms

CZN	Canadian Zinc Corporation
DAR	Developer's Assessment Report
EA	environmental assessment
GNWT	Government of the Northwest Territories
MVEIRB	Mackenzie Valley Environmental Impact Review Board
Project	Prairie Creek Mine All-Season Road and Airstrip Project
TTF	Tetcela Transfer Facility
TOR	Terms of reference

1. Introduction

This submission represents Government of the Northwest Territories (GNWT) comment and recommendation on the June 2014 Developer's Proposed Terms of Reference (TOR) for the Canadian Zinc Corporation (CZN) Prairie Creek Mine All-Season Road and Airstrip Project (the Project) environmental assessment (EA), file number EA1415-01.

2. Comments and Recommendations

Topic: Impacts to Archaeological Sites

Comment(s):

CZN states that the assessment of impacts to cultural resources is not needed for this EA:

“Potential impacts to cultural resources will not be assessed in this EA because two field investigations were completed for EA0809-002 involving investigations at those locations most likely to host cultural resources, and none were found. The investigation locations were defined by elders of the Naha Dehe Dene Band during consultations in the community. An elder and other Band members also accompanied investigators in the field. Further, the LUP's for the winter road issued by the MVLWB and Parks Canada subsequent to the EA contain conditions for the protection of cultural resources, should they be found. The same conditions would likely be included in LUP's for an all season road. As such, the appropriate mitigation is already and will be in place, and further assessment is not warranted and is unlikely to result in additional requirements[,]” (p. 11).

The project description in the TOR indicates there will be several areas of new footprint added to the current project that were not assessed by the field studies noted above, including a new airstrip, expansion of the Tetcela Transfer Facility (TTF), and potential development of an unknown number of borrow sources and access to such borrow sources. As such, it is important that the TOR require assessment of potential impacts to archaeological sites.

Recommendation #1:

GNWT recommends the TOR require an assessment of potential impacts to archaeological sites.

Topic: Construction Crew of All-season Road, Expanded Transfer Facility and Airstrip

Comment(s):

- Section 6.1 lists a number of project components and activities to be described in the Developer's Assessment Report (DAR), including "camps, staging areas, laydown areas, access roads and other support facilities".
- Measureable changes in population and demographics can have adverse effects on community life and community services. This is dependent on the extent of interactions between local and temporary populations.

Recommendation #2:

GNWT recommends the TOR require the following information:

- approximate number of individuals in each phase's crew;
- rotation schedule of the crews;
- location of camps (new or existing, temporary or permanent);
- employee alcohol and drug policy;
- if there will be security personnel at the sites;
- anticipated level of access that crews will have to surrounding communities; and
- whether it is expected that public access to the new all season road will have an impact on the level of policing service demands (e.g., does CZN anticipate an increase in traffic or need for patrolling?)

Topic: Impact on the Community

Comment(s):

Section 7.2.12 states that the list of potential Project effects on the community will be described in the DAR. However, the list of topics to be considered does not include any potential adverse Project effects on the community.

Recommendation #3:

GNWT recommends the TOR require the following information:

- potential negative effects of the Project (e.g., impact on crime rate, substance abuse, impact on family life associated with rotational work schedule, etc.); and
- potential impact of the Project on demand for policing services.

Topic: Geographic Scope of Assessment – Employment and Business Opportunities

Comment(s):

The TOR state in Section 3.3 that, “The geographic scope for each valued component, and the rationale for it, is as follows: ...Employment and benefits to the community – the Dehcho region which hosts the main communities gaining employment and receiving benefits.”

GNWT recommends a consistent approach be taken for the Project EA, as was done with the terms of reference and DAR for EA0809-002, by including the assessment of the entire Mackenzie Valley with focus on the Dehcho region.

Recommendation #4:

GNWT recommends the TOR require the same geographic scope of assessment for employment and business opportunities that was used in the terms of reference for EA0809-002. Recommended wording is:

“The developer will assess the potential impacts of the Prairie Creek All-Season Road and Airstrip Project on the economy of the Mackenzie Valley, with a focus on the Dehcho region and each potentially-affected community.”

Topic: Section 1.3 – Winter Road and All Season Road Footprint Differences

Comment(s):

- Section 1.3 of the TOR states that the all season road will generally follow the winter road alignment, with minor alterations of the existing alignment in some places. CZN suggests the footprint of the all season road will be less than the winter road, although there will be additional clearing required for the proposed airstrip and expansion of the TTF.
- Borrow sources and any access roads to these sources required for construction of the all season road have not been considered in the footprint difference between the winter and all season road.

Recommendation #5:

GNWT recommends the TOR ensure CZN includes estimates of the area impacted by borrow sources and any access roads required for construction of the all season road when calculating differences in footprint between the winter road and all season access road.

Topic: Section 3.2.2 – Effects Assessments – Valued Components

Comment(s):

CZN has proposed to exclude rare plants as a valued component for the assessment of impacts to vegetation because rare plant surveys were completed in support of EA0809-002.

GNWT questions this rationale because new areas of disturbance will be required for re-alignment of certain sections of the access road, borrow sources and their associated access roads, airstrip, and expansion of the Tetcela Transfer Facility.

Recommendation #6:

GNWT recommends the TOR require rare plants to be included as a valued component, and further surveys for rare plants should be conducted in areas where new disturbance is required that were not previously included in the assessment of the winter road alignment for EA0809-002.

Topic: Section 5.1.5 – Wildlife and Wildlife Habitat

Comment(s):

Section 3.2.2 of the TOR includes species at risk and species of concern in the list of valued components, but they are not included in Section 5.1.5, nor is there a stand-alone section for species at risk and species of concern under Section 5 – Description of the Existing Environment and Baseline Conditions. Species at risk and species of concern are covered under a separate heading under Section 7 – Assessment of Environmental Impacts and Cumulative Effects. Species at risk should be either integrated with wildlife and wildlife habitat throughout the TOR and DAR, or addressed in a separate section under Section 5, to be consistent with Section 3 and Section 7.

Recommendation #7:

GNWT recommends baseline information about species at risk and species of concern should be described under a separate heading in Section 5 of the TOR, in order to maintain consistency with Section 3 and Section 7.

Topic: Section 5.1.5 – Wildlife and Wildlife Habitat

Comment(s):

The TOR identifies caribou as a valued component in several sections. It should be noted that there are two ecotypes of woodland caribou, northern mountain and boreal ecotypes, with ranges that overlap portions of the proposed all season road and airstrip. Given that these two ecotypes of woodland caribou exhibit very different behaviours and seasonal distribution patterns and that they have different designations on Schedule 1 of the federal *Species at Risk Act* (boreal woodland caribou – Threatened; northern mountain woodland caribou – Special Concern), the TOR should provide separate assessments of potential impacts to boreal versus northern mountain woodland caribou.

Recommendation #8:

GNWT recommends the TOR:

- a) Distinguish between potential impacts to boreal woodland caribou and northern mountain woodland caribou; and
- b) Require CZN to evaluate Project footprint within the boreal caribou range in the context of habitat disturbance definitions and thresholds identified in the national Recovery Strategy for the Woodland Caribou, Boreal population (http://www.registrelep-sararegistry.gc.ca/virtual_sara/files/plans/rs%5Fcaribou%5Fboreal%5Fcaribou%5F0912%5Fe1%2Epdf).

Topic: Section 5.1.5 – Wildlife and Wildlife Habitat

Comment(s):

GNWT notes wood bison are not mentioned as a valued component for wildlife. Given that wood bison are a federally-listed species at risk and that there is potential for bison mortality due to collisions with vehicles, this species should be included as a valued component in the TOR.

Recommendation #9:

GNWT recommends the TOR require CZN to include wood bison as a valued component.

Topic: Section 5.1.5 – Wildlife and Wildlife Habitat

Comment(s):

The last bullet on page 15 relates only to the all-season road activities and does not mention activities associated with the airstrip, which is the main change in Project footprint in Phase 1 of development.

Recommendation #10:

GNWT recommends the last bullet on page 15 be re-written as follows: “migratory patterns, routes, and timing in relation to all season road route alternatives, construction activities, and operations, as well as in relation to construction activities and operations of the airstrip.”

Topic: Section 6.4 – Existing Management Plans

Comment(s):

- Section 6.4 of the TOR states that the adequacy of existing and already required management and monitoring plans, listed in land use permits MV2012F007 and Parks2012-L001, will be assessed with respect to their adequacy for detecting and preventing potential significant adverse impacts from the Project.
- GNWT notes that a Wildlife Mitigation and Monitoring Plan is required under Parks2012-L001.
- GNWT notes that a draft Wildlife Mitigation and Monitoring Plan for the mine and winter access road was filed with documents supporting water licence MV2008L2-002 (<http://www.mvlwb.ca/Boards/mv/Registry/2008/MV2008L2-0002/MV2008L2-0002/Appendix K Draft WMMP.pdf>), but is not aware of whether an updated version of this plan was submitted to fulfill the requirements for Parks2012-L001.
- The draft Wildlife Mitigation and Monitoring Plan for the Project should be updated to capture the construction and operation of the all-season road, the proposed airstrip and the expansion of the Tetcela Transfer Facility; and should be inclusive of both portions of the road – those within and outside the boundary of Nahanni National Park Reserve.

Recommendation #11:

GNWT recommends:

- a) Section 6.4 of the TOR be amended to include an assessment of adequacy for the existing draft Wildlife Mitigation and Monitoring Plan; and to require a description of any proposed amendments to this plan needed to address the construction and operation of the Project including the all-season road, the proposed airstrip and the expansion of the Tetcela Transfer Facility.
- b) CZN consult the Department of Environment and Natural Resources draft Wildlife and Wildlife Habitat Protection Plan and Wildlife Effects Monitoring Program Guidelines (attached to this submission) when assessing the adequacy and need for amendments to its draft Wildlife Mitigation and Monitoring Plan.

Topic: Section 7.2.5 – Noise

Comment(s):

Section 7.2.5 does not explicitly include noise impacts associated with construction and operation of the proposed airstrip.

Recommendation #12:

GNWT recommends Section 7.2.5 of the TOR explicitly include potential impacts to wildlife associated with noise from construction and operation of the proposed airstrip.

Topic: Section 7.2.7 – Species at Risk and Species of Concern

Comment(s):

There is inconsistency between the list of topics that will be considered for species at risk and species of concern, and topics that will be considered for wildlife and wildlife habitat.

Recommendation #13:

GNWT recommends the list of topics under Section 7.2.7 (Species at risk and species of concern) be expanded to include those listed in Section 7.2.9 (Wildlife and wildlife habitat) and

vice versa, in order to ensure the impact assessment for species at risk and species of concern receives the same level of detail as that for wildlife and wildlife habitat.

Topic: Section 7.2.13 – Impacts on Existing Transportation Infrastructure

Comment(s):

CZN states it will only list the potential effects of Project on the water crossing of the Liard River (i.e., barges) but does not mention the potential effects on the Nahanni Butte Access Road or Highway 7.

Recommendation #14:

GNWT recommends:

- a) The TOR require more information pertaining to traffic volumes and weights, and
- b) CZN consult with the Department of Transportation on the above anticipated use.

Attachment:
Government of the Northwest Territories
Draft Guideline Definitions for the Wildlife and Wildlife Habitat Protection Plan
and Wildlife Effects Monitoring Program

Environmental Impact Assessment and Review of the
Canadian Zinc Corporation Prairie Creek All-Season Road and Airstrip Project
(File Number: EA1415-01)

20 June 2014

Wildlife & Wildlife Habitat Protection Plan and Wildlife Effects Monitoring Program Guidelines

Department of Environment and Natural Resources
WILDLIFE DIVISION

DISCLAIMER

These guidelines are intended to assist developers in managing and monitoring wildlife and wildlife habitat. They are also intended to provide direction and a consistent approach for regulatory authorities with a mandate for environmental protection. Consideration of these guidelines should be supplemented by local research, traditional knowledge, and professional expertise and advice obtained from appropriate regulators.

These guidelines do not replace acts, ordinances, regulations or the terms and conditions of regulatory authorizations. Although every attempt has been made to provide up-to-date information, it remains the proponent's responsibility to obtain the most recent information related to wildlife and wildlife habitat, to ensure all regulatory requirements have been met, and to undertake appropriate consultation with territorial and federal government departments and Aboriginal groups.

ACRONYMS

EIA	Environmental Impact Assessment
EA	Environmental Assessment
CEA	Cumulative Effects Assessment
EIR	Environmental Impact Review
GNWT	Government of the Northwest Territories
LSA	Local Study Area
PDA	Project Development Area
RSA	Regional Study Area
SOP	Standard Operating Procedure
VEC	Valued Ecosystem Components
WEMP	Wildlife Effects Monitoring Program
WWHPP	Wildlife and Wildlife Habitat Protection Plan

1. INTRODUCTION

1.1.PURPOSE

The Government of the Northwest Territories (GNWT) promotes and supports the sustainable use and development of natural resources to protect, conserve and enhance the Northwest Territories environment for the social and economic benefit of all residents. This responsibility is shared with Aboriginal, federal, territorial, and municipal governments, boards and agencies and every resident of the Northwest Territories.

The GNWT is responsible for the conservation of wildlife resources, which can include collection of baseline information; assessing and monitoring the status of wildlife; wildlife habitat; species at risk; wildlife health; assessing impacts on wildlife from human activities; and, regulating wildlife protection and use.

The GNWT is aware of concerns that have been raised by land users, communities and the general public regarding environmental stressors both natural (e.g., forest fire) and human-induced (e.g., industrial development, harvesting, etc.). The GNWT acknowledges these concerns, and that the cumulative effects of these stressors has contributed to increased pressure on wildlife and wildlife habitat in the Northwest Territories (NWT). The GNWT recognizes that continued management and monitoring are necessary to determine and then minimize cumulative effects on wildlife species and their habitat.

The GNWT maintains that wildlife and wildlife habitat protection and effects monitoring should take place as an active collaboration between developers, Aboriginal, territorial and federal governments, Aboriginal organizations, wildlife co-management partners, other affected parties and neighbouring jurisdictions as appropriate.

1.2.WILDLIFE AND WILDLIFE HABITAT PROTECTION PLAN (WWHPP) AND WILDLIFE EFFECTS MONITORING PROGRAM (WEMP)

The GNWT has developed guidelines that will assist proponents in the development of an operational Wildlife and Wildlife Habitat Protection Plan (WWHPP) and a Wildlife Effects Monitoring Program (WEMP). Together, the WWHPP and the WEMP address both local and larger-scale wildlife objectives and are intended to prevent and/or reduce the potential individual and cumulative effects of development on wildlife and wildlife habitat.

The WWHPP and WEMP are intended to be separate, stand-alone documents that are tailored to the nature and scale of each project. Early engagement with the GNWT is encouraged to promote pre-project planning by identifying and addressing environmental

effects at the initial stages of project development. Following these guidelines when drafting a WWHPP and WEMP will facilitate a more efficient and timely review during environmental impact assessment¹ and regulatory processes by addressing wildlife and wildlife habitat protection objectives in a transparent and consistent manner. The guidelines should be viewed as a living document that will be updated and improved in response to operator and regulator experience, comments and suggestions.

1.2.1 Wildlife and Wildlife Habitat Protection Plan (WWHPP) Definition:

The WWHPP outlines the steps necessary to protect personnel, wildlife and wildlife habitat within the Project Development Area (PDA)², also commonly described as a project's direct "footprint." A WWHPP is a management tool to develop and implement clear procedures for employees and contractors in the field, to promote due diligence and to ensure compliance.

An effective WWHPP should include:

- Guidelines to reduce or prevent the potential for interaction between people and wildlife to ensure human safety;
- Guidelines to reduce or prevent any direct impacts from the project to wildlife and/or wildlife habitat;
- Day-to-day standard operating procedures (SOPs) that detail protocols to be used in the field as they relate to wildlife and wildlife habitat;
- Method(s) of data collection, monitoring, and reporting that will be used to document the implementation of mitigation measures, response to wildlife incidents, and any other relevant wildlife observations;
- A description of training and education for employees and contractors on guidelines and SOPs for wildlife issues;
- Links to other management plans with mitigation measures that are relevant to wildlife (e.g. Waste Management Plan, Spill Response Plan); and,
- An adaptive approach to revising practices and procedures to reflect changing site conditions, activity levels or lessons learned in order to continue to mitigate potential effects on wildlife and wildlife habitat.

Data obtained through implementation of a WWHPP should be used to track impacts and to improve management practices within the PDA. Some information may also be

¹ The term 'environmental impact assessment' is meant to encompass preliminary screenings, environmental assessments, environmental impact reviews or joint panel reviews.

² "**Project Development Area**" or "**PDA**" means the land or water area covered by the Project. This includes direct physical coverage (i.e., the area on which the project physically stands) and direct effects (i.e., the disturbances that may directly emanate from the project, such as noise), and is commonly described as a project's direct "footprint."

incorporated into a regional scale monitoring program (e.g., tracking of on-site wildlife mortalities).

1.2.2 Wildlife Effects Monitoring Program (WEMP) Definition

Whereas a WWHPP describes the mitigation measures that will be implemented to reduce local project impacts to wildlife and wildlife habitat, a WEMP encompasses effects monitoring at a Local Study Area (LSA)³ and Regional Study Area (RSA)⁴ scale during the life of the project. In effect, it is a follow-up program as defined under the *Mackenzie Valley Resource Management Act* and *Canadian Environmental Assessment Act, 2012*. A follow-up program is meant to evaluate (1) the soundness of an Environmental Assessment (EA) or Environmental Impact Review (EIR) for a proposed development; and/or (2) the effectiveness of mitigation measures or remedial measures imposed as conditions of approval of the proposal.

The specific contents of a WEMP will depend on the scope of the project, but in general terms, the WEMP is intended to provide details about larger-scale monitoring objectives and methods (e.g., monitoring wildlife species threatened by potential increases in harvester access due to project roads). For example the WEMP could (i) describe a program to test impact predictions made by a developer during a project's environmental impact assessment or the effectiveness of mitigation techniques employed during the construction, operation, closure and post-closure phase of a project, (ii) describe a developer's participation in existing regional wildlife monitoring programs implemented by the GNWT and/or other developers⁵, and/or (iii) describe support for wildlife research programs led by other parties that address issues of shared concern.

Early engagement by the developer and ongoing dialogue with the GNWT and other parties is encouraged to ensure WEMP objectives, methods, and deliverables are appropriate.

An effective WEMP should:

1. Identify and address outstanding wildlife concerns following an environmental impact assessment;

³ "Local Study Area" or "LSA" means the area surrounding and including the Project Development Area, where there is reasonable potential for immediate environmental and human impacts due to ongoing project activities;

⁴ "Regional Study Area" or "RSA" means the area where there is the potential for large-scale impacts on wildlife and wildlife habitat, including cumulative effects, and that will be relevant to the assessment of any wider-spread effects of the project. For example, the regional study area may be defined by the range of a wildlife species of concern.

⁵ An example of a collaborative regional-based monitoring at a scale appropriate to the species is documented in *Joint Regional Grizzly Bear DNA Proposal, 2012* (Rescan 2012).

-
2. Be focused on key Valued Ecosystem Components (VEC) and other species of importance that are typically found in or near the area surrounding the project;
 3. Be conducted within a study area that is appropriate to the proposed predictions for the project VEC;
 4. Have clear objectives and testable predictions, questions or hypotheses;
 5. Define the metrics that will be used to measure progress towards an objective or to test predictions, questions or hypotheses;
 6. Demonstrate that survey design, methodology, sample size, analysis and reporting will adequately meet the objectives of the monitoring program;
 7. Identify any underlying assumptions that may affect interpretation and validity of results;
 8. Use tested standardized protocols/methods/approaches that are in use by other development projects so that monitoring results can be combined at a regional scale;
 9. Be developed and reviewed in collaboration with Aboriginal partners, government, regulatory agencies, and other affected parties including other project proponents as appropriate; and
 10. Be developed such that monitoring and mitigation techniques can be revisited and revised pending new information (e.g., developed using an adaptive management framework). Any changes made to methodologies should be made in consultation with appropriate parties in order to ensure consistency with other monitoring programs.

The results of the WEMP are to be used to support adaptive management approaches, if needed, and to contribute to cumulative effect assessment (CEA), if appropriate. Results from a well-designed WEMP can also be used to inform guidelines associated with future development projects in the Northwest Territories.