Staff Report

<table>
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<th>Applicant:</th>
<th>Canadian Zinc Corporation</th>
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<tbody>
<tr>
<td><strong>Location:</strong></td>
<td>All Season Road to Prairie Creek Mine</td>
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<tr>
<td><strong>File Number:</strong></td>
<td>MV2014F0013 &amp; MV2014L8-0006 (non-federal)</td>
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<td>MV2019L8-0002 (IAB Lands)</td>
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<td>PC2014F0013 &amp; PC2014L8-0006 (Parks Canada)</td>
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<tr>
<td><strong>Date Prepared:</strong></td>
<td>July 16, 2019</td>
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<tr>
<td><strong>Date of Board Meeting:</strong></td>
<td>August 8, 2019</td>
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<tr>
<td><strong>Subject:</strong></td>
<td>Preliminary Screening Determination for the Prairie Creek All Season Road Project</td>
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1. **Purpose**

The purpose of this Report is to present to the Mackenzie Valley Land and Water Board (MVLWB/the Board) the joint preliminary screening for Canadian Zinc Corporation’s (CZN) Application for Water Licences (Licences) and Land Use Permits (Permits) including MV2014F0013 and MV2014L8-0006 (non-federal), MV2019L8-0002 (IAB Lands), PC2014F0013, and PC2014L8-0006 (Parks Canada) for the All Season Road (ASR) to the Prairie Creek Mine.

2. **Background**

- April 23, 2014 – Applications received for ASR Project;
- May 22, 2014 – the Board referred CZN’s Applications to the Mackenzie Valley Environment Impact Review Board (MVEIRB) for an Environmental Assessment (EA);
- September 12, 2017 – the MVEIRB released its Report of EA and Reasons for Decision;
- October 9, 2018 – the Minister of Crown-Indigenous Relations, with concurrence from all responsible ministers, provided approval of the EA;
- October 9, 2018 – Board staff and Parks Canada jointly issued a letter to CZN outlining the requirements for a Post-EA Information Package;
- February 20, 2019 – CZN submitted a Post-EA Information Package to the Board and Parks Canada;
- March 12, 2019 – Post-EA Information Package deemed complete and review commenced;
- April 24, 2019 – Reviewer comments and recommendations due and received;
- May 15, 2019 – CZN responses due and received;
- June 5-7, 2019 – Technical Session held by Board staff and Parks Canada in Yellowknife, NT;
- June 11, 2019 – Information Requests (IRs) generated from the Technical Session were distributed;
- July 16, 2019 – Responses to the final IR from the Technical Session received; and
- **August 8, 2019 – Preliminary Screening presented to the Board for decision.**
3. Discussion

Project History

In 2014, CZN submitted Applications to build an ASR between Liard Highway and the Prairie Creek Mine (attached). On May 22, 2014, the Board referred the ASR Project to the MVEIRB for Environmental Assessment (attached). On September 12, 2017, the MVEIRB released the Report of EA and Reasons for Decision for the ASR Project (attached). On October 9, 2018 the Minister of Crown-Indigenous Relations, with agreement from all responsible ministers, adopted the recommendation of the MVEIRB, according to sub-paragraph 130(1)(b)(i) of the MVRMA (attached).

The ASR will allow for year-round transport of concentrates from Prairie Creek Mine to market, and delivery of operating supplies to Prairie Creek Mine. It will cross non-federal land, federal land (administered by Indian Affairs Branch), and lands within Nahanni National Park Reserve (NNPR) (administered by Parks Canada, under the Canada National Parks Act). As the section of the ASR that the Board regulates is split interest, three authorizations are required: two water licences (for IAB and non-federal lands), and one land use permit (for both types of lands).

On October 9, 2018 Board staff and Parks Canada jointly issued a letter to CZN outlining requirements for a Post-EA Information Package (attached). CZN’s Post-EA Information Package is required to fulfill section 72.1 of the MVRMA, section 72.1 of the MVLUR, and section 41.1 of the Canadian National Parks Act within Nahanni National Park Reserve. CZN submitted its Post-EA Information Package on February 20, 2019, which Board staff and Parks Canada jointly deemed complete and distributed for review on March 12, 2019. The Post-EA Information Package submitted by CZN included various plans, programs, reports, maps and design drawings for the construction, operation, maintenance and closure of the Prairie Creek All Season Road Project (attached).

Reviewers comments and recommendations were received on the Post-EA Information Package April 24, 2019 and CZN responded on May 15, 2019. A Technical Session was held in Yellowknife from June 5-7, 2019 to discuss issues raised by reviewers during the review (see attached agenda). The technical session resulted in 11 Information Requests (IRs) to CZN, and one IR directed to both the Government of the Northwest Territories (GNWT) and Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC). The IRs were distributed on June 11, 2019 (attached).

Preliminary Screening

CZN’s 2014 Applications to build the ASR were referred to EA before a preliminary screening was completed by the Board. The MVEIRB’s Terms of Reference for the EA describes the scope of development and scope of assessment for the Prairie Creek All Season Road Project (attached). The MVEIRB also issued Reasons for decision on the scope of the environmental assessment (attached). In general, the EA’s scope of development included the construction, operation, maintenance, closure and reclamation of the ASR and supporting infrastructure.

Section 124 and paragraph 124 (4) of the Mackenzie Valley Resource Management Act reads as following:

(4) when one or more body conducts a preliminary screening in respect of a development, any of them may consult the other, adopt another’s report or participate in a joint preliminary screening and, where one of them is a board
established under Part 3 or 4, the others are not required to conduct a preliminary screening.

Given that Parks Canada is issuing a land use permit and water licence for the ASR for lands within Nahanni National Park Reserve, Board staff and Parks Canada have jointly drafted a preliminary screening (attached) based on the documents submitted by CZN for the Post-EA Information Package, review comments and responses to comments specifically pertaining to the preliminary screening for the Project, and technical session discussions, IRs, and responses about the preliminary screening. The preliminary screening considers environmental and socio-economic concerns, along with mitigations, for the Project, and is for the Board’s consideration.

Engagement

CZN submitted an Engagement Record, Log, and Plan with the Post-EA Information Package. The Engagement Log includes Post-EA engagement between CZN and Naha Dehe Dene Band (NDDB), Liidlii Kuğ First Nation (LKFN) and Dehcho First Nations (DFN) from 2018 until when the Post-EA Information Package was submitted. Further details of CZN’s engagement since the EA are outlined in section 7.1 of the Post-EA Information Package and Updated Project Description (Main Report), including details of engagement with Acho Dene Koe First Nation (ADKFN).

The Engagement Plan included information about CZN’s agreement to negotiate an Environmental Management Agreement (EMA) with the NDDB and LKFN to provide for the participation of the First Nations in all aspects of the Project, including independent Dene monitoring of the environment and wildlife. The Engagement Plan also described the Traditional Land Use Agreement (TLUA) that was signed between CZN and NDDB on January 15, 2019; the framework includes an agreement that preference for training, employment, business contracts, and community capacity programs will be available to NDDB. The Engagement Plan indicated that CZN is negotiating a Road Benefit Agreement (RBA) with LKFN.

4. Comments

Not applicable.

5. Public Review and Technical Session

By April 24, 2019, comments and recommendations on the entire Post-EA Information Package were received from 17 reviewers:

- Acho Dene Koe First Nation (ADKFN)
- Dehcho First Nations (DFN)
- Environment and Climate Change Canada (ECCC)
- Fisheries and Oceans Canada (DFO)
- GNWT – Education, Culture and Employment
- GNWT – Environment and Natural Resources
- GNWT – Lands – Dehcho Region (Inspector)
- GNWT – Lands – North Slave Region (Regional Superintendent)
- GNWT – Lands – North Slave Region
- GNWT – Lands – Securities and Project Assessment
- Indigenous and Northern Affairs Canada – NWT Inspector
- INAC – Yellowknife
Liidlii Kué First Nation (Fort Simpson) (LKFN)
Mackenzie Valley Environmental Impact Review Board
MVLWB staff
Parks Canada
Racher Consulting (on behalf of LKFN and NDDB)

CZN responded by May 15, 2019. Board and Parks staff had indicated in the instructions for the public review that the Board would need to conduct a preliminary screening if the development has been modified from the development that underwent EA, and reviewers were encouraged to provide comments and recommendations on changes to the Project, as well as impacts and mitigation measures related to the Project changes.

Specific comments and recommendations related to the preliminary screening were submitted by nine reviewers: DFN, GNWT Environment and Natural Resources (ENR), GNWT-Lands North Slave Region, GNWT-Lands Securities and Project Assessment, LKFN, MVEIRB, MVLWB staff, Parks Canada, and Racher Consulting (on behalf of LKFN and NDDB). The Review Summary and Attachments presents the comments and attachments that are specifically related to preliminary screening (attached).

**Project changes since EA**
GNWT-Lands Securities and Project Assessment (comment ID: 2) and MVLWB staff (comment ID: 5) recommended that CZN outline Project changes since EA to result in a better understanding of which Project activities should be screened. CZN responded to GNWT-Lands Securities and Project Assessment (comment ID: 2) that two changes had been made, including use of a hoverbarge for the Liard River crossing instead of a conventional barge, and no longer diverting Sundog Creek in Nahanni National Park Reserve. In response to MVLWB staff (comment ID: 5), CZN indicated that they were unclear as to whether the changes require preliminary screening, and that for the hoverbarge there is already mitigation in the form of the Ferry Cable Regulations.

Several reviewer comments and recommendations suggested that the hoverbarge and the modified plan for the Sundog Creek alignment should be screened, and details of the hoverbarge and Sundog Creek were discussed in the technical session held from June 5-7, 2019. A summary of the review comments and recommendations and technical session discussions about the hoverbarge and Sundog Creek are presented below.

In CZN’s Post-EA Information Package, CZN had indicated in the Waste Management Plan (attached) that “a bioremediation cell is to be developed for soil/material contaminated with hydrocarbon”. In the Road Closure and Reclamation Plan (attached) CZN indicated that “Progressive remediation of hydrocarbon-contaminated soils as may be associated with the construction and operation of the ASR and associated infrastructure” could be a short-term reclamation objective. Three reviewer comments (DFN ID: 4, GNWT-Lands North Slave Region ID: 14 and MVLWB ID: 4) inquired about the progressive remediation of hydrocarbon-contaminated soils; specifically DFN asked if CZN is applying for the facility as part of the licence, and the MVLWB Board staff comment indicated that this component was not assessed during the EA. CZN responded that they are not applying for a hydrocarbon contaminated soil treatment facility as part of the licence, and that such a facility is part of the approved scope of the Prairie Creek Mine development. As such, the hydrocarbon contaminated soil treatment facility was not considered to be a Project change or included in the draft preliminary screening form for the ASR Project.
During the technical session Board staff asked CZN about several Project components in the Post-EA Information Package that appeared to be different than what was described in the report of EA, and if CZN believed they were Project changes that were not assessed during the EA (see attached transcript dated June 6, 2019, page 158 line 24 – page 161 line 4). The question resulted in an Information Request to CZN (IR #10; attached). On June 24, 2019, CZN responded to the IR #10 (attached) and indicated minor changes including new water sources, additional minor water crossings, radio repeaters, and camps that differ from what was outlined in the EA. The Board and Parks Canada reviewed these Project changes and decided that the changes are minor, that these aspects of the changes have been assessed during the EA, and that the changes have environmental benefits. Therefore, these minor changes do not require additional screening.

Based on the information provided in the discussions above, the components that have changed since the EA and require screening are as follows:

- Construction and operation of a barge crossing at the Liard River from a conventional barge to a hoverbarge, and the associated landings on both sides of the Liard River; and
  - The barge itself was screened during EA, but the winch cable associated with the hoverbarge has not been assessed.
- The construction, operation, closure and reclamation of the ASR along the south bank of Sundog Creek between km 34 and km 38.
  - The alignment along the south bank of Sundog Creek was assessed in the EA, however the location of the alignment has now been modified. The original Project description was to relocate about 1.5 km of the creek main channel from its present location along the south edge of the floodplain to a prominent natural braid located in the central portion of the floodplain. The purpose of the diversion was to reduce ASR-channel interaction and allow the road segment to be built partly within the footprint of the original main channel. CZN is now proposing a revised plan for Sundog Creek that eliminates the need for the Sundog Creek Diversion. Under the revised plan, the road alignment along the former diversion reach is adjusted into the south bank above the existing main channel to minimize encroachments into the channel.

As the hoverbarge crosses Liard River (non-federal lands), Board staff focused on the part of the preliminary screening related to the hoverbarge. Sundog Creek is within Nahanni National Park, and Parks Canada staff completed the preliminary screening form related to Sundog Creek.

Hoverbarge

CZN provided a document with hoverbarge details in their Post-EA Information Package (attached). During the public review DFN (comment ID: 3), LKFN (comment ID: 3) and Racher Consulting (on behalf of LKFN and NDDB; comment ID: 8) recommended that CZN provide information on potential environmental effects of installing or operating the hoverbarge. In response, CZN provided a document that provides additional information on the hoverbarge and discusses effects of the hoverbarge (Review Summary and Attachments). In the technical session Racher Consulting stated that LKFN and NDDB did not have any further issues with the hoverbarge following the information document CZN provided (see attached transcript dated June 6, 2019, page 157 line 2 – 8). Racher Consulting also recommended in the technical session that the construction of the landings and operation of the hoverbarge be incorporated into a plan (see attached transcript dated June 6, 2019, page 157 line 9 – 17). Board staff note that construction conditions in the current draft permit and licence require CZN to submit a Design and Construction Plan for the barge landings, which will identify any potential impacts and mitigation.
measures associated with the hoverbarge landings. Further, the draft licence and permit require details specific to environmental effects of installing and operating the hoverbarge to be included in the Sediment and Erosion Control Plan.

Sundog Creek
On April 6, 2019 CZN sent a letter to the Board and Parks Canada indicating that they no longer believed it would be necessary to divert Sundog Creek to construct the ASR (attached). This was a result of further considering the road alignment along the south bank of Sundog Creek and adjusting the alignment to reduce the encroachment on the existing main channel of the creek.

Eight reviewer comments from the public review were about the change to Sundog Creek (ENR comment ID: 159, LKFN comment ID: 12-13, MVEIRB comment ID: 1, Parks Canada comment ID: 215-218). During the technical session Sundog Creek was discussed (see attached transcript dated June 7, 2019, page 21 line 3 – page 35 line 4). The discussion resulted in an IR about Sundog Creek (IR #12; attached) requiring CZN to submit a revised plan specific to Sundog Creek. CZN responded to IR #12 on July 16, 2019 with a draft All-Season Road Sundog Creek Mitigation and Monitoring Plan (attached). Parks Canada used the information about Sundog Creek to draft the preliminary screening.

6. Security
The status of security for this Project will not be affected by the Board’s decisions related to the joint preliminary screening. Security for the Project will be decided at the time of Permit and Licence issuance.

7. Conclusion
Board staff conclude that there are no outstanding issues or concerns with the joint preliminary screening drafted with Parks Canada. Parks Canada will sign the preliminary screening following the Board’s decision.

8. Recommendation
Board staff recommend the Board make a motion to approve the joint preliminary screening for Water Licences (Licences) and Land Use Permits (Permits) including MV2014F0013 and MV2014L8-0006 (non-federal), MV2019L8-0002 (IAB Lands), PC2014F0013, and PC2014L8-0006 (Parks Canada) for the All Season Road (ASR) to the Prairie Creek Mine.

A draft 10-day pause period letter and decision letter are attached.

9. Attachments
- [Applications for Land Use Permit and Water Licence (2014)]
  - Staff report including Review Summary and Attachments
- Applications referral to EA
- The MVEIRB Report of Environmental Assessment and Reasons for Decision
- The MVEIRB Recommendation to Minister
- Minister Decision on EA Oct 9, 2018
- Post-EA Information Package Requirements
• **Post-EA Application Package**¹:
  - Engagement Record, Log, and Plan
  - Waste Management Plan
  - Road Closure and Reclamation Plan
  - Hoverbarge details

• **Agenda for technical session held in Yellowknife June 5-7, 2019;**

• **Information Requests from the technical session;**

• **MVEIRB’s Terms of Reference for the Prairie Creek All Season Road;**

• **MVEIRB’s reasons for decision on the Scope of the EA for the Prairie Creek All Season Road;**

• **Technical session transcript June 6, 2019;**

• **CZN’s Response to Information Requests – June 24, 2019;**

• **Letter from CZN about changes to Sundog Creek Diversion – April 6, 2019;**

• **CZN’s Draft All Season Road Sundog Creek Mitigation and Monitoring Plan – July 16, 2019;**

• **Review Summary and Attachments on preliminary screening;**

• **Draft Preliminary Screening;**

• **Draft 10-Day Pause Period Notification Letter; and**

• **Draft Decision Letter from the Board**

Respectfully submitted,

Jacqueline Ho
Regulatory Specialist

Kimberley Murray
Regulatory Specialist

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¹ The Post-EA Information Package includes: Post-EA Information Package and Updated Project Description (Main Report); Access Road Maps; Draft Road Construction Management Plan; Land Use Permit (proposed by CZN); Non-Typical Winter Road Section Design Drawings; All Season Road Design Drawings; Stream Crossing General Arrangement Drawings; Stream Crossing Hydrology Data; Summary of Minor Stream Crossings; Borrow Pit Management and Reclamation Plan; Borrow Pit Information; Construction Camp Layout Drawings; Studies to Date; Hoverbarge Details; Liard River Crossing Drawings; Updated Commitments Table; Technical Review Panel Candidate CVs; Traffic Control Mitigation and Management Plan; Wildlife Management and Monitoring Plan and Data Report; Engagement Record, Log, and Plan; Preliminary AIA Summary; Invasive Species Management Plan and Data Report; Rare Plant Management Plan and Data Report; Permafrost Management Plan and Permafrost Geotechnical Investigation Data Report; Road Closure and Reclamation Plan; Waste Management Plan; Geochemical Verification Program; Sediment and Erosion Control Plan; Road Operations and Maintenance Plan; Explosives Management Plan; Spill Contingency Plan; Health, Safety and Emergency Response Plan; Avalanche Hazard and Safety; RECALIM Cost Estimate (non-federal lands); RECLAIM Cost Estimate (IAB Federal Lands); and RECLAIM Cost Estimate (Parks).
**Board:** MVLWB

**Review Item:** Canadian Zinc Corporation - Prairie Creek All Season Road (ASR) - Land Use Permits and Water Licences (MV2014F0013; MV2014L8-0006; MV2019L8-0002; PC2014F0013; and PC2014L8-0006)

**Proponent:** CanZinc Corporation

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<td>Appendix 1-9 - Summary of Minor Stream Crossings (391.26 KB)</td>
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**Item Description:**

**Item For Review Distributed On:**
- Mar 12 at 16:12 [Distribution List](#)
- Mar 12 at 16:16 [Distribution List](#)

**Reviewer Comments Due By:**
- Apr 24, 2019

**Proponent Responses Due By:**
- May 15, 2019

**May 1-3, 2019 update:**
1. CZN submitted a request to extend the proponent response to reviewer comments deadline from May 1st, 2019 until May 15, 2019. The extension was granted.
2. A technical session will be held from **June 5-7, 2019** in **Yellowknife**.

**April 9, 2019 update:**
1. CZN has submitted a letter indicating a change in the proposed design for the Sundog Creek portion of their proposed All-Season Road. The Letter has been added to the ORS page for this project, and now forms a part of CZN’s Post-EA Information Package. Due to the timing of this submission, the review comment deadline has been extended to **April 24, 2019** to grant reviewers time to consider this change in their comments. Please note that the Sundog Creek Diversion Plan (Appendix 26-1) is no longer a part of the Post-EA Information Package and has been removed from the ORS.

CZN has asserted that this new information does not alter the original assessment of impacts to valued ecosystem components considered in the Report of Environmental Assessment EA1415-01, and is therefore exempt from preliminary screening in accordance with the Preliminary Screening Exemption List Regulations and Exemption List Regulations. If you have comments or recommendations on the possible exemption, please include them in your submission. INCLUDE RATIONALE. The Board and Parks Canada will make a determination on the preliminary screening exemption.

**March 22, 2019 update:**
1. CZN submitted an additional map which better depicts the north Liard river crossing point. The map is now included in the document list for this review, titled "ASR N Liard Map - Mar22_19". This map only affects the area which will fall under the MV2014L8-0006 and MV2014F0013 Licence and Permit (non-federal).
March 15, 2019 update:

1. The Review Comment End Date has been extended due to reviewers' request (DFN Request, ECCC Request). The Review Comment End Date is now April 16, 2019, and the Proponent Responses End Date is April 23, 2019.

2. Board staff have prepared preliminary draft conditions for the Permit and Licence. The text below has been updated and **bolded** to provide further details.

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**Introduction:**

On February 20, 2019, Canadian Zinc Corporation (CZN) submitted a Response (Post-EA Information Package) to Mackenzie Valley Land and Water Board’s (MVLWB or the Board) and Parks Canada’s Information Request (IR) dated October 9, 2019 regarding its Type A Land Use Permits (Permits) and Type B Water Licences (Licences). The Project consists of an All Season Road (ASR), beginning at the intersection of the Liard Highway (km 184) and ending at Prairie Creek Mine (km 0). The total ASR length is 170 km, in addition to an existing 10-km Nahanni Butte access road.

**Jurisdiction:**

Parks Canada is the regulator for lands within Nahanni National Park Reserve (NNPR) under the *Canada National Parks Act*. The Board is the regulator for the rest of the ASR, including the Indian Affairs Branch (IAB) lands. Parks Canada will make best efforts to follow the Board’s regulatory process and timeline; however, Parks Canada does not have a legislated timeline.

**History:**

Permit and Licence applications for the Prairie Creek ASR were received by the Board and Parks Canada on April 23, 2014. The Applications were distributed for review on May 2, 2014, reviewer comments were due on May 15, 2014, and proponent responses were due on May 21, 2014. On May 22, 2014, the Board referred the Applications to the Mackenzie Valley Environmental Impact Review Board (Review Board) for environmental assessment (EA). A Report of Environmental Assessment (REA) was released on September 12, 2017. On October 9, 2018, the Minister of Crown-Indigenous Relations, as the federal Minister, with concurrence from all responsible ministers, provided approval of the EA. On October 9, 2018, the Board and Parks Canada jointly required CZN to submit a Post-EA Information Package.

**Instructions:**

Reviewers are invited to submit comments and recommendations on CZN’s Post-EA Information Package using the Online Review System (ORS) by the review comment deadline specified below. Please note that both Parks Canada and the Board are using the ORS to gather comments, therefore all comments will be considered by both jurisdictions at the same time. If reviewers seek clarification on the submission, they are encouraged to correspond directly with the proponent prior to submitting comments and recommendations.

Please provide comments and recommendations on the Post-EA Information Package including:

- Main Report;
- Access Road Maps;
- Construction Camp Layout Drawings;
- Studies to Date;
- Updated Commitment Tables;
- Draft Closure Cost Estimates (please note there are estimates for territorial, federal and Parks land);
- Engagement Record, Log, and Plan;
- Waste Management Plan;
- Spill Contingency Plan;
- Health Safety and Emergency Response Plan;
- Explosive Management Plan;
• Invasive Species Management Plan and Data Report;
• Rare Plant Management Plan and Data Report;
• Permafrost Management Plan;
• Preliminary Geotechnical Investigation Report;
• Sediment and Erosion Control Plan;
• Sundog Creek Diversion Plan;
• Geochemical Verification Program;
• Borrow Pit Management and Reclamation Plan;
• Borrow Pit Information;
• Road Operations and Maintenance Plan;
• Road Construction Management Plan;
• ASR Design Drawings;
• Non-Typical Winter Road Section Design Drawings;
• Summary of Minor Stream crossings;
• Stream Crossing Hydrology Data;
• Stream Crossing General Arrangement Drawings;
• Hoverbarge Details;
• Panel Candidate CVs;
• Terms of Reference for the Independent Technical Review Panel;
• Avalanche Hazard and Safety;
• Traffic Control Mitigation and Management Plan;
• Wildlife Management and Monitoring Plan and Data Report;
• Please be advised that comments made by reviewers regarding impacts of this project to wildlife and wildlife habitat will inform both Parks Canada and the GNWT Minister of Environment and Natural Resources’ on the review of the Wildlife Management and Monitoring Plan.

• Preliminary Archaeological Impact Assessment Summary;
• Closure and Reclamation Plan; and
• CZN’s Proposed Draft Land Use Permit Conditions.

Please provide comments and recommendations on the following documents developed by the Board:
• Draft Work Plan.
• The Board’s Preliminary Draft Land Use Permit MV2014F0013 (please clearly indicate which condition you are commenting on); and
• The Board’s Preliminary Draft Water Licence MV2014L8-0006 (please clearly indicate which condition you are commenting on).

A draft work plan for this Application has been developed by Board staff. The intention of this draft Work Plan is to provide generic timeline for this proceeding. Please note the timeline is approximate, and is subject to change due to Board, Parks Canada, proponent, and reviewer schedules, and the needs for further information or additional public reviews.

Board staff have prepared preliminary draft conditions for the Licence (MV2014L8-0006) that will apply outside of the federal areas and the Permit (MV2014F0013) that will apply to both non-federal and IAB lands. Draft conditions for the Licence (PC2014L8-0006) and Permit (PC2014F0013) that will apply to NNPR, and the Licence (MV2019L8-0002) for the IAB lands may be posted at a later date. Reviewers can provide comments and recommendations on the conditions for all jurisdictions. As CZN has proposed conditions for the Permit, Board staff have incorporated reasonable wording or conditions into the preliminary draft Permit. The purpose of the draft Permit and Licence is to allow parties to comment on possible conditions. These draft materials are not intended to limit in any way the scope of parties’ comments. The Board is not bound by the contents of the draft Licence and
Permit and will make its decision at the close of the proceeding on the basis of all the evidence and arguments filed by all parties.

Preliminary Screening:
In order to ensure that the requirements of Part 5 of the Mackenzie Valley Resource Management Act (MVRMA) have been met, the Board needs to confirm that the development described in CZN’s Post-EA Information Package has not been modified from the development that underwent EA. If the development has not been modified, then it is exempt from preliminary screening in accordance with the Exemption List Regulations; otherwise, the Board must conduct a screening. Reviewers are encouraged to provide comments and recommendations on:
1) Changes to the Project (e.g. the Hoverbarge) identified in the Post-EA Information Package; and
2) Impacts and mitigation measures related to those changes to the Project.

This information will assist both the Board and Parks Canada to determine if there are parts of the Project that were not assessed through the EA and assist with the completion of the preliminary screening.

Water compensation:
Notices of application for water compensation must also be submitted by the review comment deadline.

Contact us:
All documents that have been uploaded to this review are also available on our public Registry. If you have any questions about this review, please contact the Board staff and/or the Parks Canada staff identified below. If you have any questions specifically about the ORS, please contact Board staff identified below.

Julian Morse, Regulatory Specialist, MVLWB
Telephone: (867) 766-7453 Email: jmorse@mvlwb.com

Jacqueline Ann Ho, Regulatory Specialist, MVLWB
Telephone: (819) 766-7455 Email: jho@mvlwb.com

Allison Stoddart, Environmental Assessment Specialist, Parks Canada
Telephone: (819) 420-9188 Email: Allison.stoddart@canada.ca

Comment Summary

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| 3  | Scope - Hoverbarge     | **Comment** Currently, the hoverbarge and the hoverbarge landings are not included within the scope of the LUP.  
**Recommendation** The operation of the Hoverbarge across the Liard River is a key element of this project and is currently not included in the scope of the Land Use Permit. DFN recommends that the Hoverbarge be included within the scope of the LUP. | **May 15:** Barge and barge landings were already part of the scope, and are similar to a hoverbarge, except for the cables associated with the hoverbarge. Operation of the cables is covered by the Ferry Cable Regulations. Barge landing | Board staff note that construction conditions in the draft permit and licence require CZN to submit a Design and Construction Plan for the barge landings, which will identify any potential impacts and mitigation measures associated with the |
operation of the Hoverbarge and the construction and operation of the hoverbarge landings is reflected in the Land Use Permit. DFN echoes the comments provided by LKFN and NDDB that CZN should provide information on the potential environmental effects of installing or operating the proposed hoverbarge (including the operating the landing facilities).

| 4 | Definitions - Hydrocarbon Contaminated Soil Facility | **Comment** The definition section of the Land Use Permit includes a hydrocarbon-contaminated soil treatment facility. **Recommendation** A hydrocarbon contaminated soil treatment facility is currently not listed in the scope of the permit. Is CZN applying for a hydro-carbon contaminated soil treatment facility as part of this license? **May 15:** CZN is not applying for a hydrocarbon contaminated soil treatment facility as part of the license. Such a facility is part of the approved scope of the Mine development. Any hydrocarbon contaminated soil associated with the road will be transferred either to the Mine site or an off-site disposal facility. **Noted.** The hydrocarbon contaminated soil treatment facility is not included in the draft preliminary screening. |

| 159 | Topic 122: Letter Re: Sundog Creek Diversion | **Comment** CZN has proposed an adjustment to the road alignment over the reach of the previously proposed Sundog Creek Diversion. CZN states that Measure 9-1 and the related studies no longer apply, but all other measures and suggestions remain applicable. ENR notes that baseline monitoring outlined in Measure 8-1 should still apply. As well, ENR noted in a previous comment, careful consideration should be given to the location of each hydrometric station given the small number that will be installed along the road. ENR understands that the Sundog Creek hydrometric station was installed with the anticipation of the downstream diversion. Given that Sundog Creek will no longer be diverted, ENR notes consideration should be given to potentially more appropriate locations for hydrometric monitoring. **Recommendation** 1) ENR recommends that CZN consider re-evaluating the location of the hydrometric station. **May 15:** The Sundog station was moved upstream last year to about Km 31, on the advice of WSC, where flows are less intermittent. This location should be representative of the upstream Sundog catchment without the significant influences of alluvial storage that exist downstream. The modified location of the Sundog Creek alignment, including impacts and mitigations, is considered in the draft preliminary screening by Parks Canada. |
currently intended for installation in Sundog Creek as that location was chosen to inform baseline monitoring for the Sundog Creek diversion channel. If CZN intends to leave the station where it is, ENR recommends CZN provide revised rationale to support this.

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<th>Topic 129: Wildlife: NWT Listed and Pre-listed Species at Risk</th>
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<td><strong>Comment</strong></td>
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<td><strong>May 15</strong></td>
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mitigation/monitoring measures proposed by the Proponent.

**Recommendation 1)** Potential impacts to the species at risk listed above from the project include sensory disturbance, attraction to operations, destruction of habitat, risk of injury, risk of mortality, risk of contact with or ingestion of toxic substances, reduced habitat quality, disruption or barriers to movements or migration. ENR is satisfied that with application of the specific recommendations: a) Within other sections of this letter to the Board; b) Within our letter submitted to the Proponent; c) As well as application of the wildlife mitigation and monitoring measures outlined in the Proponents LUP/WL applications and supporting documents, potential negative impacts to the species at risk listed above can be avoided or minimized.

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<tr>
<th>Topic 131: Wildlife Abodes</th>
<th><strong>Comment</strong> Subject to sub-section 51(2) of the Wildlife Act, it is illegal to break into, destroy, or damage a den, beaver dam or lodge, muskrat push-up or hibernaculum unless you have an Aboriginal or treaty right or a Permit to do so. Protection of dens, beaver lodges, muskrat push-ups, and hibernacula is essential to ensuring reproductive success and survival of both adults and young. <strong>Recommendation 1)</strong> The Proponent should conduct pre-activity surveys within 800m of the project footprint to identify active bear dens if project activities will occur between September 30 and March 30. Surveys should be conducted in the fall to detect freshly dug dens.</th>
<th><strong>May 15:</strong> Yes, pre-construction den surveys are provided in the WMMP. Refer to Section 6.1.1. Board staff note that CZN is required to submit a Wildlife Management and Monitoring Plan for the Project to address the potential impacts on wildlife habitat.</th>
</tr>
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<tr>
<td>None</td>
<td><strong>Comment</strong> None</td>
<td><strong>May 15:</strong> Refer to Section 6.1.1 of the WMMP that describes pre-construction bear den surveys. Board staff note that CZN is required to submit a Wildlife Management and Monitoring Plan for the Project to address the potential impacts on wildlife habitat.</td>
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<td>None</td>
<td><strong>Comment</strong> None</td>
<td><strong>May 15:</strong> Section 6.1.1 of the WMMP will be updated to ensure ENR is contacted to discuss mitigation options if an active bear den is identified and that bear den locations are to be kept confidential between CZN and ENR/Parks Canada. Board staff note that CZN is required to submit a Wildlife Management and Monitoring Plan for the Project to address the potential impacts on wildlife habitat.</td>
</tr>
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None

**Recommendation** 4) It is recommended that, if encountered, beaver lodges, muskrat push-ups, and hibernacula are not disturbed or damaged.

**May 15:** OK. Will be included in the updated WMMP.

Board staff note that CZN is required to submit a Wildlife Management and Monitoring Plan for the Project to address the potential impacts on wildlife habitat.

### GNWT - Lands - North Slave Region: Tracy Covey

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<td>14</td>
<td>Waste and Management Plan</td>
<td><strong>Comment</strong> TLA notes that a Soil Remediation and Landfarm Plan; is typically a sub-set of present day Waste Management Plan submissions, and is recommended for this operation. <strong>Recommendation</strong> Submit a Soil Remediation and Landfarm Plan; as per direction and guidance provided by the MVLWB.</td>
<td><strong>May 15:</strong> See response to GNWT Lands North Slave 9.</td>
<td>Board staff note that CZN is not applying for a hydrocarbon contaminated soil facility as part of the Application. The hydrocarbon contaminated soil treatment facility is not included in the draft preliminary screening.</td>
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### GNWT - Lands: Darren Campbell (Securities and Project Assessment)

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<td>2</td>
<td>Preliminary Screening</td>
<td><strong>Comment</strong> The GNWT notes the Land and Water Board's statement that it needs to confirm that the development described in CZNs Post-EA Information Package has not been modified from the development that underwent EA, and the request for comments and recommendations on changes to the Project identified in the Post-EA Information Package. It was difficult to determine a complete list of these changes. <strong>Recommendation</strong> The GNWT recommends that the proponent provide a list of changes to the project (development) from what has undergone EA.</td>
<td><strong>May 15:</strong> Only 2 changes of any significance have been made: 1. Barge to hoverbarge for Liard River crossing; 2. No longer diverting Sundog Creek (in the NNPR). In addition, we confirmed the use of sealed containers for concentrate transport.</td>
<td>Noted. Board staff have included impacts and mitigations related to the hoverbarge in the draft preliminary screening, and Parks Canada has included impacts and mitigations associated with the modified location of the Sundog Creek alignment.</td>
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### Liidlii Kue First Nation (Ft Simpson): Lorraine Land

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<td>3</td>
<td>Hoverbarge environmental effects</td>
<td><strong>Comment</strong> The hoverbarge proposal is a new (post EA) proposal and LK is aware that it requires additional review, which can appropriately happen during the technical sessions. <strong>Recommendation</strong> We suggest that more detailed discussions about the hoverbarge proposal occur during the technical sessions</td>
<td></td>
<td>Board staff have included impacts and mitigations related to the hoverbarge in the draft preliminary screening.</td>
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<td>12</td>
<td>Sundog Diversion</td>
<td><strong>Comment</strong> CZN has submitted a new proposal for routing of the road in the area of Sundog Creek, amending the previous proposal for a diversion to a new proposal that the road be built on an embankment. Road route options in the Sundog Creek</td>
<td><strong>May 15:</strong> Agree. Note, for clarity, the new road development plan consists of building on the bank above the OHWM of the creek as much as possible, instead of in the channel. Also note that the modified location of the Sundog Creek alignment, including impacts and mitigations, is considered in the draft preliminary screening by Parks Canada.</td>
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area raise interrelated questions of engineering feasibility and aquatic and fish impact implications, and it may be helpful for these factors to be assessed in tandem by the ITRP.  

**Recommendation** We recommend that the issues related to the updated options for road design changes in the area of Sundog Creek, and the related fish and aquatic impacts, be a topic for discussion at the technical sessions.

ITRP will be composed of engineers tasked mainly to consider safe road design, while minimizing environmental impacts.

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<th>13</th>
<th>Topics for the Technical Session</th>
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| **Comment** | The draft water licence and land use permits distributed by the Board highlighted a number of areas where reviewer comments were being sought. However, we were not able to provide recommendations for everything currently because of outstanding questions. We recognize the Technical Sessions will also provide an opportunity for all parties to resolve issues and discuss optimal options for the water licence and land use permit.  

**Recommendation** In addition to topics highlighted in our joint submission with NB, LK suggests the following additional topics that we believe would be useful to discuss at the Technical Sessions: (1) a more detailed discussion on the riparian and aquatic impacts of the hoverbarge proposal and how these can be mitigated; (2) How traditional knowledge and the results of the Dene Monitoring program will be integrated into the adaptive management planning process in a manner that ensures that Dene Knowledge informs mitigation decisions; (3) Options for and an examination of best practices for controlled access to the road including the best measures to ensure minimal impact from non-NDDB harvesters and any land users other than CZN using the road as an access point; (4) How local or traditional knowledge can be incorporated into road design in a manner consistent with EA measure 10; and (5) How different road design choices for the Sundog Creek area relate to different needs for fish and aquatic impacts mitigation. |

**May 10:** (doc) See attached letter.  
**May 15:** Noted. 

The modified location of the Sundog Creek alignment, including impacts and mitigations, is considered in the draft preliminary screening by Parks Canada.
The modified location of the Sundog Creek alignment, including impacts and mitigations, is considered in the draft preliminary screening by Parks Canada.

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<td>3</td>
<td>Appendix 1-15 Hoverbarge</td>
<td><strong>Comment</strong> CZN describes the use of a Hoverbarge in the Post-EA Information Package Main Report (1.4.12 Liard River Crossing), and additional Hoverbarge information is provided in Appendix 1-15. However, the Hoverbarge is not listed in management plans (e.g. Road Operations and Maintenance Plan, Road Construction Management Plan, Traffic Control Mitigation and Management Plan) and in instances when the Liard River crossing is discussed the term “barge”; is used. In Appendix 1-3 Road Construction Management Plan it states in 6 Construction Schedule under Key Project Considerations that: “A small sized barge capable of transporting single 5 tonne trucks could provide limited access during summer operations”. <strong>Recommendation</strong> Please comment on the likelihood of a Hoverbarge being used, and any implications the Hoverbarge could have on water licence/land use permit conditions.</td>
<td><strong>May 15:</strong> It is CZN’s plan to use a hoverbarge. Re WL/LUP conditions, we believe it could be treated the same as a barge in that landing ramps could be subject to design approval. For the hoverbarge specifically, it might be appropriate to require that the cables be managed in accordance with the Ferry Cable Regulations.</td>
<td>Board staff note that construction conditions in the draft permit and licence require CZN to submit a Design and Construction Plan for the barge landings, which will identify any potential impacts and mitigation measures associated with the hoverbarge landings. In the draft licence and permit, details specific to environmental effects of installing and operating the hoverbarge are required in the Sediment and Erosion Control Plan. The hoverbarge has been considered in the draft preliminary screening.</td>
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<td>4</td>
<td>Progressive remediation of hydrocarbon-contaminated soils/bioremediation cell</td>
<td><strong>Comment</strong> In section 3.0 Progressive Reclamation CZN indicates that &quot;Progressive remediation of hydrocarbon-contaminated soils as may be associated with the construction and operation of the ASR and associated infrastructure&quot; could be a short-term reclamation objective. Section 3.1 of the Waste Management Plan indicates that a bioremediation cell is to be developed for soil/material contaminated with hydrocarbon. The Waste Management Plan does not provide details on the bioremediation cell. This component was</td>
<td><strong>May 15:</strong> The reference to a bioremediation cell is in connection with the construction of such a cell at the Mine site, as contemplated in EA0809-02. If this cell is not constructed, then hydrocarbon contaminated soil will be shipped off-site to a registered waste management company.</td>
<td>Noted. The hydrocarbon contaminated soil treatment facility is not included in the draft preliminary screening.</td>
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Recommendation Please provide more details regarding the progressive remediation of hydrocarbon-contaminated soils/the bioremediation cell. The Board’s Guidelines for Developing a Waste Management Plan section 3.4.1 provides guidance on providing information specific to on-site landfarm.

Project changes since EA, Preliminary Screening

Comment Depending on Reviewer comments, the Mackenzie Valley Land and Water Board and Parks Canada may have to conduct a Preliminary Screening to address project changes since EA1415-01. Recommendation Please outline changes to the Project since EA, and if CZN believes the Project is exempt from Preliminary Screening in accordance with the Exemption List Regulations (see www.mvlwb.com > Resources > Acts and Regulations > Exemption List Regulations).

May 15: See our response to GNWT Lands Darren 2. Re the Sundog Diversion, in our opinion, the proposed changes are within the scope of what the Review Board considered and ruled on, and the potential for effects is much less. As such, an argument could be made that the changes are exempt from preliminary screening. However, we understand that Parks Canada is conducting a screening, so we will await those results. Re the hoverbarge, we view the potential for effects to be no different from a conventional barge which was assessed. The only significant difference is the hoverbarge has winch cables. We’re unclear as to whether these require preliminary screening. We believe there is already mitigation in the form of the Ferry Cable Regulations.

Parks Canada: Audrey Steedman

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<td>49</td>
<td>PCA #49 - Appendix 4-1: Traffic Control Mitigations and Management Plan and Appendix 1-3: Road Construction Management Plan - radio repeaters</td>
<td>Comment The submission indicates that &quot;CZN will consider installing repeater stations at key locations; potential locations include the high pass at KP 17, Wolverine Pass at KP 102 and Grainger Gap. This will expand the coverage area for radio communications, which will assist in providing increased positional updates for all road users and allow messages regarding wildlife encounters, poor road conditions or on-coming traffic, to be transmitted. The radios will normally be used to facilitate passing using the pull-outs.&quot; Parks Canada notes that repeaters were not considered in the EA. Recommendation Please clarify if the installation of repeaters is proposed, and if</td>
<td>May 15: Repeaters may need to be integral to communication and safe operation of the access road, allowing communications between road users, maintenance crews, and base. Potential locations include the high pass at KP 17, Wolverine Pass at KP 102 and Grainger Gap. All locations are proposed to be outside of the NNPR. A communication specialist will be consulted.</td>
<td>Parks Canada and Board staff have assessed if using radio repeaters is a change from EA that needs to be screened. As the concept of radio communication/repeaters were assessed during EA, and it is a minor change that will benefit the Project, Board staff and Parks Canada did not include the use of radio repeaters in the draft preliminary screening.</td>
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the repeaters would be integral to the communication plan and implementation of mitigations. Provide specific detail on the repeater proposal including locations.

**215 PCA #215 - Letter re Sundog Apr 6 - impacts to Collared pika**

**Comment** The submission indicates that "the nearest recorded collared pika presence is in BP 34 (previously (2016) Km 34.4, now Km 34.6). Pika habitat and sign was noted adjacent to the road alignment where it parallels the previously proposed creek diversion reach, but the locations were unoccupied at the time of the survey. The continued absence of pikas will need to be confirmed prior to construction. However, there does not appear to be an impediment to moving the road alignment further into the slope over the reach location in terms of effects on pikas." Parks Canada notes that there was Pika sign at BP 35 as well, and at approx KP 37.1. This proposed realignment looks like it encroaches slightly more on pika areas.

**Recommendation** Ensure that the pika effects assessment, which should include accounting for inactive habitat, is updated to include the effects of this proposed realignment.

**May 15:** By following existing mitigation and pre-construction survey adaptive management, the proposed encroachment onto the slope is not predicted to change the effects assessment, but this will be confirmed and updated, where necessary, in the baseline report. See Parks 81 for response on inactive habitat.

**216 PCA #216 - Letter re Sundog Apr 6 - applicability of Measure 9-1**

**Comment** CZN has indicated that measure 9-1 should no longer apply because the Sundog diversion is no longer proposed. Parks Canada will continue to require that this Measure be met as the current Sundog proposal will still result in a modification of the channel, in-water works, impacts on fish and fish habitat and a requirement for monitoring and adaptive management.

**Recommendation** Ensure that the requirements of Measure 9-1 (Parts 1-5) are met for the proposed Sundog Creek amendment.

**May 15:** Refer to our May 10, 2019 letter.

The modified location of the Sundog Creek alignment, including impacts and mitigations, is considered in the draft preliminary screening by Parks Canada.

**217 PCA #217 - Letter re Sundog Apr 6 - baseline data required offsetting options**

**Comment** The description of offsetting opportunities contain a number of unverified assumptions including the likelihood of perfusion of subsurface water and the probability of fish access. The submission indicates that "all of the opportunities proposed above will require additional investigations to demonstrate sufficient subsurface perfusion of oxygenated water throughout the winter, assess the likelihood of fish accessing the sites, and to determine water depths, and thus required pond depths, in winter."

**May 15:** Hatfield consultant will be collecting baseline habitat information related to potential offsetting opportunities during the open water season of 2019. Overwintering habitat in Sundog Creek near the ASR appears to be the most limiting habitat, therefore Hatfield has focused on identifying locations having the greatest probability of hosting viable overwintering habitat. Currently three field programs are planned. The purpose of

The modified location of the Sundog Creek alignment, including impacts and mitigations, is considered in the draft preliminary screening by Parks Canada.
**Recommendation**  Provide a plan detailing how and when baseline data will be collected, and analysis provided to demonstrate the suitability of proposed offsetting options.

these programs will be to collect detailed habitat information at each of the potential offsetting locations, to identify offsetting opportunities in Sundog Creek, and to assess fish usage of habitat in Sundog Creek, and within streams that the ASR crosses. Hatfield and CZN have been in contact with Parks Canada and DFO and have communicated the study design within the permit applications required to conduct scientific studies in 2019. The study plan has been presented at a high level to date; however, a study design document, providing greater detail, will be produced in the summer or fall of 2019.

Specific to offsetting opportunities, the critical information to be collected in 2019 includes assessing (1) the duration of connectivity between the offset habitat and Sundog Creek; (2) the probability that fish are currently using the habitat; and (3) the habitat of the offset opportunity and adjacent creek under different water level scenarios. In addition to the data collected as part of these studies, additional work will need to be completed to assess conditions in potential overwintering pools during the winter, specifically water level and oxygen content.

The most effective way of accessing water during the winter is to dig a 2-3 m test pit in an adjacent area which would be connected hydraulically to the offset location via sub-surface flow. After conditions have stabilized, water levels can be recorded and water samples taken. The test pits would be dug in conjunction with the Phase 1 winter road and geotechnical program scheduled for Q1 2020.

| 218 | PCA #218 - Letter re Sundog Apr 6 | **Comment** The offsetting calculations provided within the Sundog Ammendment are specific to that area. How does this fit with the project's overall plan? | **May 15:** During the EA process, Hatfield presented offsetting calculations that included all impacts and mitigation measures. | The modified location of the Sundog Creek alignment, including impacts and mitigation measures. |
offsetting calculations into the offset accounting for the whole project?

**Recommendation** Clarify offset accounting for the entire project.

components of the ASR. (Hatfield Memo “Prairie Creek Mine, all season road habitat loss and offset” March 9, 2017 [http://reviewboard.ca/upload/project_document/EA1415-01_Prairie_Creek_habitat_offsetting_memo_submitted_by_CanZinc.PDF]). In addition to aquatic habitat alterations/losses related to the Sundog Creek ASR encroachments, this memo also provided estimates of riparian habitat loss, and habitat alterations at crossings along the entire ASR. Given that the road alignment adjacent to Sundog Creek has changed since drafting of this memo, the numbers will need to be updated.

**Racher Consulting: Kathy Racher**

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| 8  | Hoverbarge environmental effects | **Comment** Section 1.4.12 of the Updated Project Description describes the use of a hoverbarge to cross the Liard River during open water. Although the section describes the need for landing and staging facilities, there is no information about the potential environmental effects of hoverbarge operation or how to mitigate them. The hoverbarge is not mentioned in the draft land use permit, the draft water licence, or any of the draft management and monitoring plans submitted with the application.  

**Recommendation** CZN should provide information on the potential environmental effects of the installing or operating the proposed hoverbarge including effects of building and operating the landing/staging facilities (e.g., erosion control) and any potential effects to aquatic life during operations. Mitigations for these potential effects should be described as well as any monitoring needed to evaluate the effectiveness of the mitigations under existing plans (e.g., the Sediment and Erosion Control Plan) as appropriate. A dedicated hoverbarge operation plan may also be necessary to describe safe operation of the barge in different seasons. Examples from other jurisdictions that are currently using a hoverbarge may be helpful. | **May 15:** See the attached letter which provides additional information on the hoverbarge and discusses effects. Safe operation is covered by the Ferry Cable Regulations, which the hoverbarge would have to comply with.  

**May 15:** Attachment | Board staff have included impacts and mitigations related to the hoverbarge in the draft preliminary screening. |
Dear Mr. Morse and Mr. Tsetso:

Re: Hoverbarge
Prairie Creek Mine All Season Road
MV2014F0013, MV2014L8-0006, PC2014F0013, PC2014L8-0006

We refer to Canadian Zinc Corporation’s (CZN’s) submission to the Water Board and Parks Canada on February 19, 2019 providing an initial Information Package, including an Initial Information Package response and an Updated Project Description (UPD) for the development of an all season road (ASR) to the Prairie Creek Mine.

The UPD provided details of our intended use of a hoverbarge as the primary mode of crossing the Liard River. Use of the vessel will greatly reduce the number of non-operational days either side of winter, and during periods of low water level, associated with a conventional barge.

Several comments have since been made requesting further details, notably from Racher Consulting on behalf of the Naha Dehe Dene Band and Liidlii Kue First Nation (Comment 8). Accordingly, this letter provides additional information.

**Hoverbarge Supplier, Features and Previous Projects**

Appendix 1-15 to the Information Package contained details provided by Hoverbarge Freight Ltd. Appended to this letter are additional details as well as those provided in Appendix 1-15.
These provide some information on the supplier, list some previous projects, and provide further details on hoverbarge construction and operation.

The hoverbarge we intend to acquire will accommodate 2 loaded trucks per crossing. Vessel arrangement is shown in the figure below.

For propulsion, there is a winch on-board and a second winch on-shore (south side of Liard River) (see figure below). There is a guideline across the river in case the main haul cable breaks or the on-board winch fails.
This propulsion will be similar to cable-stayed ferries, which are common. Such a ferry was recently introduced to the Buckley Bay – Denman Island crossing in BC (see photo below). Nearly a year into providing service, BC Ferries says it is pleased with the performance of its first cable ferry.

![Diagram of cable ferry](image1)

The winch cables will be secured to the river banks, either by use of a plough-anchor (see figure below) or piles. Operation of the cables will be subject to the Ferry Cable Regulations. A copy of these is attached.
The arrangement of the crossing staging area in relation to the hoverbarge is shown in the figure below (south landing).

The figure below shows the function of the moveable loading/unloading ramp between shore and vessel deck. It is important to note that, once the hoverbarge has been placed in the water each year after winter maintenance, it does not leave the water until the end of the season. After each crossing, the front of the hull comes to rest on the shoreline with the air cushion deflated. This is for loading/unloading stability. The majority of the vessel remains in the water. The loading ramp is placed against the vessel, and moved according to river water level.
The shore ramps will be stabilized either with aggregate or with reinforcing similar to that shown in the figure below. This stabilization will be placed down to the lowest river water level (winter).

In addition to the shore stabilization, moveable trackway is used to enhance vehicle mobility. The trackway is either plastic or, as in the photo below, metal.
Environmental Considerations

The information above describes stabilization of the shore ramps. This is intended to mitigate the potential for erosion and sedimentation. The use of trackway will provide enhanced mitigation. The shore areas of the river are composed of silt and are generally devoid of vegetation, as shown in the figure below.

Monitoring could be conducted after ramp construction, and during initial hoverbarge operations, to verify the absence of significant sedimentation. However, the Liard River is notorious for having a high suspended sediment content, and thus effects are unlikely to be detected.

The vessel exerts only a pressure of 1 psi. In 2006, Hover Freight conducted a series of tests in Scotland using a 200 tonne payload vessel. The Hoverbarge was towed over uncooked chicken eggs without breaking them. In addition, birds were seen diving for fish adjacent to the vessel in
operation (see photo below), indicating that fish were present which were not overly perturbed by the vessel.

It is expected that there may be a small amount of water turbulence immediately below the vessel during crossings. However, this is expected to be less than that which results from a propeller attached to a conventional barge.

Hoverbarge sound levels are indicated to be comparable to a diesel truck at 15 m travelling at 80 kph (50 feet at 50 mph). This is also likely to be comparable to a conventional barge.

Sincerely,
CANADIAN ZINC CORPORATION

David P. Harpley
VP, Environment and Permitting Affairs
Ferry Cable Regulations

SOR/86-1026

Current to April 8, 2019

Published by the Minister of Justice at the following address:
http://laws-lois.justice.gc.ca
Subsections 31(1) and (3) of the Legislation Revision and Consolidation Act, in force on June 1, 2009, provide as follows:

Published consolidation is evidence

31 (1) Every copy of a consolidated statute or consolidated regulation published by the Minister under this Act in either print or electronic form is evidence of that statute or regulation and of its contents and every copy purporting to be published by the Minister is deemed to be so published, unless the contrary is shown.

Inconsistencies in regulations

(3) In the event of an inconsistency between a consolidated regulation published by the Minister under this Act and the original regulation or a subsequent amendment as registered by the Clerk of the Privy Council under the Statutory Instruments Act, the original regulation or amendment prevails to the extent of the inconsistency.

...
# TABLE OF PROVISIONS

Regulations Respecting Ferry Cables in Navigable Waters

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# TABLE ANALYTIQUE

Règlement concernant les câbles de traîle dans les eaux navigables

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Her Excellency the Governor General in Council, on the recommendation of the Minister of Transport, pursuant to paragraphs 28(a) and (b) and section 29 of the Navigable Waters Protection Act, is pleased hereby to revoke the Ferry Cable Regulations, C.R.C., c. 1230 and to make the annexed Regulations respecting ferry cables in navigable waters, in substitution therefor.
Regulations Respecting Ferry Cables in Navigable Waters

Short Title

1 These Regulations may be cited as the Ferry Cable Regulations.

Interpretation

2 In these Regulations

Act means the Navigable Waters Protection Act; (Loi)
down means, in respect of a ferry cable, that the ferry cable is resting on the bed of a navigable water; (abaissé)
raised means, in respect of a ferry cable, that the ferry cable is not resting on the bed of a navigable water. (relevé)

Approval

3 (1) No person shall lay, stretch or maintain a ferry cable across, over, in or under any navigable water unless his plans for the ferry cable are approved by the Minister.

(2) The Minister shall approve the plans referred to in subsection (1) if the Minister determines that the operation of the ferry cable will not interfere with the safety of navigation on the navigable water and that the vessel to be used in the operation of the ferry cable meets the requirements prescribed by or under the Canada Shipping Act.

SOR/94-374, s. 6.

4 The plans referred to in subsection 3(1) shall contain the following information:

(a) the name of the navigable water, the proposed location of the ferry cable and the depth of water at the proposed location;
(b) the type of operations for which the ferry cable is to be used;
(c) the specifications and description of the ferry cable;

Règlement concernant les câbles de traille dans les eaux navigables

Titre abrégé

1 Règlement sur les câbles de traille.

Définitions

2 Les définitions qui suivent s’appliquent au présent règlement.

abaissé Relativement à un câble de traille, celui qui repose sur le lit d’eaux navigables. (down)
Loi La Loi sur la protection des eaux navigables. (Act)
relevé Relativement à un câble de traille, celui qui ne repose pas sur le lit d’eaux navigables. (raised)

Approbation

3 (1) Il est interdit à quiconque de poser, de tendre ou d’entretenir un câble de traille en travers, au-dessus ou au-dessous d’eaux navigables ou dans ces eaux, à moins que les plans du câble de traille n’aient été approuvés par le ministre.

(2) Le ministre approuve les plans visés au paragraphe (1) s’il détermine que l’utilisation du câble de traille ne nuira pas à la sécurité de la navigation dans les eaux navigables et que le bâtiment qui sera employé au cours de l’exploitation du câble de traille est conforme aux exigences prévues par la Loi sur la marine marchande du Canada ou en application de cette loi.

DORS/94-374, art. 6.

4 Les plans visés au paragraphe 3(1) doivent comprendre les renseignements suivants :

a) le nom des eaux navigables, l’emplacement projeté du câble de traille et la profondeur de l’eau à cet emplacement;

b) le genre d’opérations auxquelles le câble de traille doit servir;

c) le devis descriptif du câble de traille;
(d) the lighting and signals proposed for the on-shore terminal ends of the ferry cable;

(e) the proposed hours of operation of the ferry cable;

(f) the proposed schedule of crossings of the navigable water; and

(g) where the ferry cable is to be operated on a seasonal basis, the proposed period of operation of the ferry cable.

**Lights**

**5 (1)** The owner of a ferry cable shall

(a) install a red light and a green light at each of the on-shore terminal ends of the ferry cable in such a manner that the lights are clearly visible from a vessel approaching the ferry cable from any direction;

(b) where the ferry cable is in the raised position, ensure that the red lights referred to in paragraph (a) are illuminated;

(c) where the ferry cable is in the down position, ensure that the green lights referred to in paragraph (a) are illuminated; and

(d) ensure that the red lights or the green lights referred to in paragraph (a) are illuminated 24 hours a day to indicate the position of the ferry cable.

**Operation**

**6** The owner of a ferry cable shall operate the ferry cable in accordance with the plans for the ferry cable approved by the Minister under subsection 3(2).

**7** The owner of a ferry cable shall maintain the ferry cable in the down position when it is not in use.

**8** No person in charge of a vessel shall navigate the vessel across a ferry cable when the red lights are illuminated at the on-shore terminal ends of the ferry cable.

**9** The owner of a ferry cable shall maintain on duty, in charge of the ferry cable, a responsible person capable of operating the ferry cable safely.
Punishment

10 Every person who violates any provision of these Regulations is liable on summary conviction to a fine of $500 or to imprisonment for a term of six months or to both.

Peine

10 Quiconque contrevient à toute disposition du présent règlement est passible, sur déclaration sommaire de culpabilité, d'une amende de 500 $ ou d'un emprisonnement de six mois, ou des deux peines à la fois.
April 24, 2019

Jonathan Tsetso
Superintendent
Nahanni National Park Reserve
Parks Canada
PO Box 348
Fort Simpson NT X0E 0N0

Julian Morse
Regulatory Specialist
Mackenzie Valley Land and Water Board
7th Floor, 4922 48th St.
PO Box 2130
Yellowknife, NT X1A 2P6

Dear Mr. Tsetso and Mr. Morse:

Re: Applicability and implementation of Environmental Assessment measures under the Mackenzie Valley Resource Management Act – CanZinc’s Prairie Creek All Season Road

The Review Board was recently notified of Canadian Zinc Corporation’s (CanZinc) proposed change to the design and construction of the portion of the Prairie Creek All Season Road along lower Sundog Creek in Nahanni National Park (~KP 35.2 to KP 36.4), which would no longer include the originally proposed channel diversion. Due to this proposed design change, CanZinc has indicated that they no longer believe that Measure 9.1 of the Review Board’s Report of Environmental Assessment (EA1415-01) is required (Link). CanZinc additionally asserts that the proposed modification of the development does not alter the original assessment of impacts to valued ecosystem components considered in the Report of Environmental Assessment. CanZinc suggests that this change is therefore exempt from preliminary screening in accordance with the Preliminary Screening Requirement Regulations and Exemption List Regulations.
Parks Canada and the Mackenzie Valley Land and Water Board have asked reviewers to comment on the possible exemption from preliminary screening.

The Review Board believes that a project change after an Environmental Assessment (EA) will require a regulatory authority to consider:

1. the extent and effects of the proposed changes to the project, and
2. how these changes might affect the significance determinations and any resulting measure from the EA approved by responsible Ministers.

Project changes need to be screened
If the project is being modified, the regulatory authority must consider whether there are differences between the scope of the development that was assessed and the development which is being proposed. If there are changes that would involve activities that were not previously assessed or that would have impacts that were not considered, then a preliminary screening must be undertaken. The preliminary screening should focus on the effects of activities not previously considered under Part 5 of the Mackenzie Valley Resource Management Act (MVRMA).

In this case, the option now being proposed by the developer for road alignment along lower Sundog Creek was not assessed and, in our view, it needs to be screened by Parks Canada.1

If a project change has implications on the Review Board’s significance determination and EA measures approved by Ministers this is not a preliminary screening question

Based on the Gwich’in, Sahtu, and Tłįchǫ agreements2, Part 5 of the MVRMA establishes the Review Board as the “main instrument” for environmental assessment (EA) and environmental impact review (EIR) in the Mackenzie Valley.3 Under the legal framework set out by the MVMRA, the Review Board

- makes decisions on the significance of impacts and the need for measures;
- sets out measures and follow-up programs in the Board’s recommendation to Ministers and final decision-makers; and
- participates in any consult-to-modify processes initiated by a final decision-maker.

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1 The area in question is in the National Park. The regulatory authority with jurisdiction for screening in the Park is Parks Canada.
3 This letter refers mostly to “EA”, but applies to EIR as well.
There is no provision in the MVRMA allowing the Board’s significance determination and the resulting EA measures to be changed through a preliminary screening process. Considering the purpose and intent of Part 5 of the MVRMA and the roles, responsibilities, and authorities of the Review Board, the Board must lead any review or reconsideration of its significance determinations or the applicability of measures. **To change a measure requires a process led by the Review Board, with a recommendation to and a decision from final decision makers.**

This approach is consistent with recent amendments to the MVRMA. These changes which are not yet in force include new responsibilities for the Review Board in relation to issuing, reviewing, and, with ministerial approval, amending development certificates. Although these provisions are not yet in force, they were consulted on, enacted by Parliament, and have received royal assent. The approach we suggest is consistent with the principle that the Review Board should be involved in any review related to EA measures, even after an EA is concluded.

**Regulatory authorities act in conformity with EA decisions**

Subsection 130(5) of the MVRMA requires the federal minister and responsible ministers to “carry out” an EA decision made under section 130 and a first nation, local government, regulatory authority or department or agency of the federal or territorial government to “act in conformity” with the decision, to the extent of their respective authorities.

Regulators are responsible for detailed implementation of measures through their regulatory instruments and powers, but there is no authority in the MVRMA for a regulator to vary an EA measure approved by Ministers. Measure 9-1 identifies Parks Canada and Fisheries and Oceans Canada (DFO) as being responsible for providing oversight of the detailed implementation of the measure.

If there is a question about applicability of a measure, a regulator should ask the Review Board to provide its views on the matter. The Review Board has serious concerns about any proposal to vary or remove an approved EA measure without the involvement of the Review Board and final decision-makers under Part 5 of the MVRMA.

The Board acknowledges that CanZinc’s proposal may be an improved design and commends the developer for looking for options that will reduce impacts that could result from the creation of a

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4 Subsection 142.21 (1) of the MVRMA - Amendments Not In Force
separate diversion channel. However, the Review Board is still concerned with any process that includes the varying or removal of a measure of the EA that is not led by the Review Board.

The Board would like to discuss with Parks Canada the next steps on how to proceed with CanZinc’s proposal to remove the requirements of Measure 9-1.

If you have any questions regarding this matter, please contact the Review Board’s Executive Director, Mark Cliffe-Phillips at mcliffephillips@reviewboard.ca or 867-766-7055 to discuss this matter further.

Sincerely,

Joanne Deneron
Chairperson