



Arctic / Ontario and Prairies Regions  
Fish and Fish Habitat Protection Program  
301 – 5204 50th Ave. (Franklin)  
Yellowknife, Northwest Territories  
X1A 1E2

Régions de l'Arctique / Ontario et Prairies  
Programme de protection du poisson et de son habitat  
301 – 5204 50th Ave. (Franklin)  
Yellowknife, Territoires du Nord-Ouest  
X1A 1E2

May 13, 2022

*Your file* *Votre référence*  
MV2021D0005-MV2021L2-0004

*Our file* *Notre référence*  
15-HCAA-1626

Mackenzie Valley Land and Water Board  
Attention: Andrew Wheeler  
7th Floor, 4922 48th St.  
PO Box 2130  
Yellowknife, NT  
X1A 2P6

Dear Andrew Wheeler:

**Subject: CZN Prairie Creek Mine – Water Licence MV2021D0005 and Land Use Permit MV2021L2-0004 Application – DFO Closing Arguments**

Fisheries and Oceans Canada – Fish and Fish Habitat Protection Program (DFO) thanks the Mackenzie Valley Land and Water Board (MVLWB) and Canadian Zinc Corporation (CanZinc), and other parties for the opportunity to participate in the review of the above-mentioned CanZinc Water Licence and Land Use Permit Application.

DFO conducted a review of CanZinc's Water Licence and Land use permit application to the MVLWB. DFO submitted written interventions on October 8, 2021 and participated in the Public Hearing from December 13-16, 2021. In addition, DFO has submitted further comments on the DRAFT Licence (MV2021D0005) and Permit (MV2021L2-0004) on May 6, 2022.

DFO is submitting the attached closing arguments as requested by the MVLWB to meet the May 20, 2022 deadline. The purpose of the closing arguments are to clarify and/or reiterate DFO's comments presented in the intervention and/or during the Public Hearing. DFO's closing arguments are based on our departmental mandate under the *Fisheries Act*, specifically the management and protection of fish and their habitat in both the freshwater and marine environments.

If you have any questions, please contact Dana Harris at our Yellowknife office at (867) 669-4935, by fax at (867) 669-4940, or by email at [Dana.Harris@dfo-mpo.gc.ca](mailto:Dana.Harris@dfo-mpo.gc.ca). Please refer to the file number referenced above when corresponding with the Program.

Yours sincerely,

Alasdair Beattie  
Team Lead  
Arctic / Ontario and Prairies Regions  
Fish and Fish Habitat Protection Program  
Fisheries and Oceans Canada

Copy: Tatiana Leclerc-Beaulieu ([Tatiana.Leclerc-Beaulieu@dfo-mpo.gc.ca](mailto:Tatiana.Leclerc-Beaulieu@dfo-mpo.gc.ca))  
Dana Harris ([Dana.Harris@dfo-mpo.gc.ca](mailto:Dana.Harris@dfo-mpo.gc.ca))



Fisheries and Oceans  
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## FISHERIES AND OCEANS CANADA

### Closing Arguments

Canadian Zinc Corporation Prairie Creek Mine – Type A Water Licence and Land Use Permit Application

Submitted to: **Mackenzie Valley Land and Water Board**

May 18, 2022

DFO File No.: 15-HCAA-01626  
MVLWB File No.: MV2021D0005-MV2021L2-0004

Canada 

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## **Executive Summary**

The following is Fisheries and Oceans Canada's (DFO) closing arguments in regards to Canadian Zinc Corporation's (CanZinc) Water Licence and Land Use Permit Application to the Mackenzie Valley Land and Water Board (MVLWB). The mandate of Fisheries and Oceans Canada Fish and Fish Habitat Protection Program (DFO) is to protect all fish and fish habitat; DFO's comments and recommendations ensure that works, activities and undertakings are conducted in such a way that the proponents are in compliance with the applicable provisions of the *Fisheries Act*.

DFO submitted an intervention to the MVLWB on October 8, 2021, and participated to the Public Hearing from December 13-16, 2021. DFO's comments focused on maintaining Bull Trout monitoring within the Aquatics Effect Monitoring Program (AEMP) as well as the potential impacts to fish and fish habitat resulting from the exfiltration trench construction and operation at the Prairie Creek Mine.

DFO recommended that Bull Trout monitoring remain within the AEMP under the updated Water Licence application, CanZinc agreed. DFO recommended that CanZinc verify that the exfiltration trench is not a potential barrier to fish passage and raised concerns about the proposed construction timing of the exfiltration trench within Prairie Creek falling within the Restricted Activity Period (RAP). If construction cannot take place outside this period, DFO will require a Request for Review (RFR) for in-water works with detailed rationale, avoidance/mitigation measures, and potential offsetting measures to account for any harmful alterations, disruptions, or destruction of fish habitat if required. DFO also recommended CanZinc undertake velocity modelling and impact analysis for fish passage.

## **1 Introduction**

CanZinc submitted an updated Water Licence and Land use permit application to the MVLWB in March 2021. DFO provided intervention comments from the technical session on October 8, 2021 and participated in the public hearing from December 13-16, 2021. DFO provided comments concerning the inclusion of Bull Trout monitoring in the updated Water Licence and the construction and operation of the exfiltration trench within Prairie Creek.

The mandate of Fisheries and Oceans Canada Fish and Fish Habitat Protection Program (DFO) is to protect all fish and fish habitat, and thus DFO's comments aim to ensure that works, activities and undertakings are conducted in such a way that the proponents are in compliance with the applicable provisions of the *Fisheries Act*, and provides recommendations to CanZinc based on these mandates.

DFO's intervention submitted to MVLWB on October 8, 2021, as well as participation in the public hearing from December 13-16, 2021 identified concerns surrounding Bull Trout monitoring requirements, the impacts of timing of construction and the operation of the proposed exfiltration trench on fish and fish habitat within Prairie Creek.

This submission outlines DFO's closing arguments for this process. The closing arguments identified below are meant to reiterate DFO's comments presented in the intervention and at the hearing, and any further discussions with CanZinc.

## 2 Requests/Recommendations and Resolution

DFO recommended that Bull Trout monitoring remain in the AEMP. Due to Bull Trout being listed as Special Concern under Schedule 1 of the *Species at Risk Act*, DFO recommended that monitoring continue to occur until potential impacts are demonstrated to be fully avoided and/or mitigated at the Prairie Creek mine. This recommendation was resolved and Bull Trout monitoring will remain a component of the AEMP.

CanZinc intends on constructing an exfiltration trench within the Prairie Creek. DFO recommended that CanZinc undertake velocity modelling and impact analysis to ensure the exfiltration trench will not be a barrier to fish. This recommendation was resolved, and velocity modelling and impact analysis from the exfiltration trench has been requested in the draft water licence under Design and Construction Plan – Exfiltration Trench.

DFO provided comments on the timing of construction of the exfiltration trench, and recommended to CanZinc that construction should occur outside of the Restricted Activity Period (RAP), in the case that construction is required to occur within the RAP then DFO will require a Request for Review (RFR) for in-water works to be submitted by CanZinc. The RFR shall include detailed rationale, avoidance/mitigation measures, and potential offsetting measures to account for any harmful alterations, disruptions, or destruction of fish habitat if required. Velocity modelling and impact analysis of the exfiltration trench should be included in the RFR submission. In addition, DFO recommended a condition in the Water Licence limiting exfiltration to a window outside the RAP be removed. CanZinc committed to providing this information in their RFR.

DFO's requests/recommendations and their resolution are reiterated in the table below.

DFO Recommendation		Resolution
<b>Bull Trout Monitoring</b>		
<b>1</b>	DFO recommended that bull trout monitoring remain part of the AEMP until CanZinc can demonstrate that potential impacts to Bull Trout are fully avoided and/or mitigated.	Bull Trout Monitoring will remain a component of the AEMP.
<b>Exfiltration Trench</b>		
<b>Fish Passage</b>		
<b>3</b>	DFO recommended that CanZinc provide a velocity modelling and impacts analysis to confirm that the exfiltration trench is not a potential barrier to fish passage within the RFR.	Velocity modelling and impact analysis from the exfiltration trench operations to flow and fish passage were requested in the draft water licence under Design and Construction Plan – Exfiltration Trench (Schedule 4, Condition 5 a).

Construction Timing Window		
<b>2</b>	<p>DFO recommends that the construction activities related to the exfiltration trench occur outside the Restricted Activity Period (RAP). If construction cannot take place outside the RAP, then a Request for Review (RFR) for in-water works for this project is required by DFO. The RFR should include detailed rationale, avoidance/mitigation measures, and potential offsetting measures to account for any harmful alternations, disruption, or destruction of fish habitat. In addition, DFO recommended a condition in the Water Licence limiting exfiltration to a window outside the RAP be removed.</p>	<p>In a meeting between CanZinc and DFO held on October 6<sup>th</sup>, CanZinc committed to providing this information in their RFR.</p>

**3 Conclusion**

Fisheries and Oceans Canada will continue to work with the CanZinc, parties, and impacts communities to ensure impacts related to fish and fish habitat arising from proposed works at the Prairie Creek mine are effectively avoided, mitigated, monitored and offset, where required.