



Fisheries and Oceans Pêches et Océans
Canada Canada

Ontario and Prairies Region
Fish and Fish Habitat Protection Program
Suite 301, 5204 50th Ave
Yellowknife, NT
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February 23, 2022

Your file Votre référence
MV2021L2-0004 and MV2021D0005

Our file Notre référence
15-HCAA-01626

Andrew Wheeler
Regulatory Specialist
Mackenzie Valley Land and Water Board
7th Floor, 4922 48th St.
PO Box 2130
Yellowknife, NT
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Re: Information Request on Exfiltration Trench Pipe Lengths Canadian Zinc Corporation – Water Licence Renewal Application MV2021L2-0004 and New Type A Land Use Permit Application MV2021D0005 Prairie Creek Mine – Mining and Mineral Exploration

Dear Mr. Wheeler:

As requested by the Mackenzie Valley Land and Water Board (MVLWB) through an Information Request on February 11, 2022, Fisheries and Oceans Canada (DFO) is providing the following in response to Undertaking #12 in regards to exfiltration trench pipe lengths. DFO has reviewed the information provided by Canadian Zinc (CZN) in their January 18, 2022 submission titled *‘Responses to Public Hearing Undertakings, Mining and Milling Water Licence MV2021L2-0004 and Land Use Permit MV2021D0005, Prairie Creek Mine’* to determine whether any exfiltration trench pipe length scenario can be eliminated from further consideration due to negative impacts on fish passage.

Given the results of the stream habitat assessment provided in Attachment 12-2 Hatfield Review of Stream Velocities, CZN expects all potential pipe length scenarios 2 m/1.5 m, 4.8 m/4.8 m, and 8 m/6 m (summer/winter) to have negligible impacts on existing flow velocities and passage of target salmonid species (Bull Trout and Mountain Whitefish). Based on the results of this assessment, DFO cannot eliminate any pipe length scenario as CZN anticipates no negative impacts to fish passage. However, as stated in CZN’s assessment, a longer exfiltration trench (8 m/6 m) may be preferable as it minimizes increases in flow velocity and attenuation distance downstream of effluent release.



Regardless of pipe length, it remains CZN's responsibility to demonstrate and ensure fish passage in the immediate vicinity of the exfiltration trench, as well as surrounding areas potentially impacted by associated changes in velocity due to the exfiltration trench. DFO expects this information and fish passage assessments to be provided in a Request for Review. Additionally, to ensure that the exfiltration trench is not a barrier for fish, modelling and expected stream velocities will require field validation to confirm CZN's predictions for changes to instream velocity from the exfiltration trench.

If you have any questions with the content of this letter, please contact Erica Gillis at our at 867-445-6814, or by email at Erica.Gillis@dfo-mpo.gc.ca.

Yours sincerely,

Alexandra Sorckoff
A/Senior Biologist
Fish and Fish Habitat Protection Program
Fisheries and Oceans Canada

Cc: Alasdair Beattie – DFO
 Erica Gillis – DFO
 Andrew Wheeler – MVLWB