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MVEIRB Public Hearing

Canadian Zinc Corporation Prairie Creek Mine

Fisheries and Oceans Canada

June 23 & 24, 2011

Fort Simpson, NWT

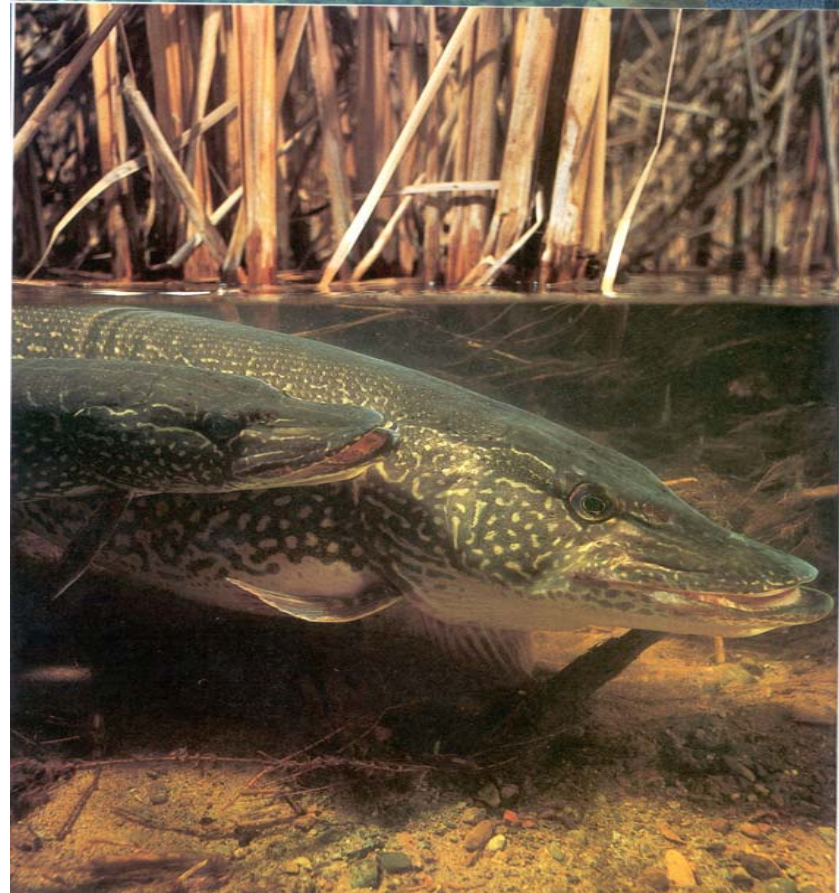


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Overview

1. DFO Mandate
2. Potential Areas of Concern and Recommendations





DFO Mandate

DFO is responsible for developing and implementing policies and programs in support of Canada's scientific, ecological, social and economic interests in oceans and fresh waters.





Relevant Sections of the *Fisheries Act*

Section 22 – Sufficient water flow for the passage of fish

Section 30 - Fish guards and screens

– E.g. water withdrawals for winter road construction

Section 32 - Destruction of fish by means other than fishing

Section 35 – Harmful alteration, disruption or destruction (HADD) of fish habitat

Section 36 - Prohibits the deposit of deleterious substance into fish bearing waters (**administered by Environment Canada**)



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Potential Areas of Concern and Recommendations



Effluent Outfall - Construction

Concern

- Improper construction techniques could impact fish and fish habitat.





Effluent Outfall - Construction

Recommendations

- Should the project proceed, a detailed fish habitat assessment and appropriate mitigation measures for the construction of the effluent outfall will be required to ensure adverse impacts to fish and fish habitat are avoided.



Effluent Outfall - Operation

Concern

- Sedimentation at the site of discharge;
- Potential change in flow and temperature regimes in Prairie Creek;
- Potential impacts to fish passage and overwintering habitat.





Effluent Outfall - Operation

Recommendations

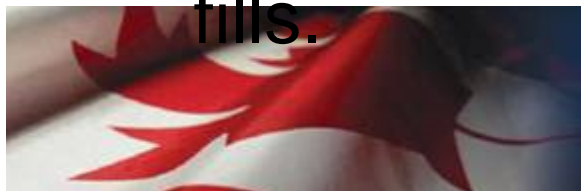
- Submit a monitoring plan to ensure year round fish passage in Prairie Creek to the satisfaction of DFO.



Access Road - Crossings

Concerns

- Erosion of stream banks – potential sediment release into streams
- Construction of temporary crossings, clear span structures, ice bridges and snow fills.





Access Road - Crossings

Recommendations

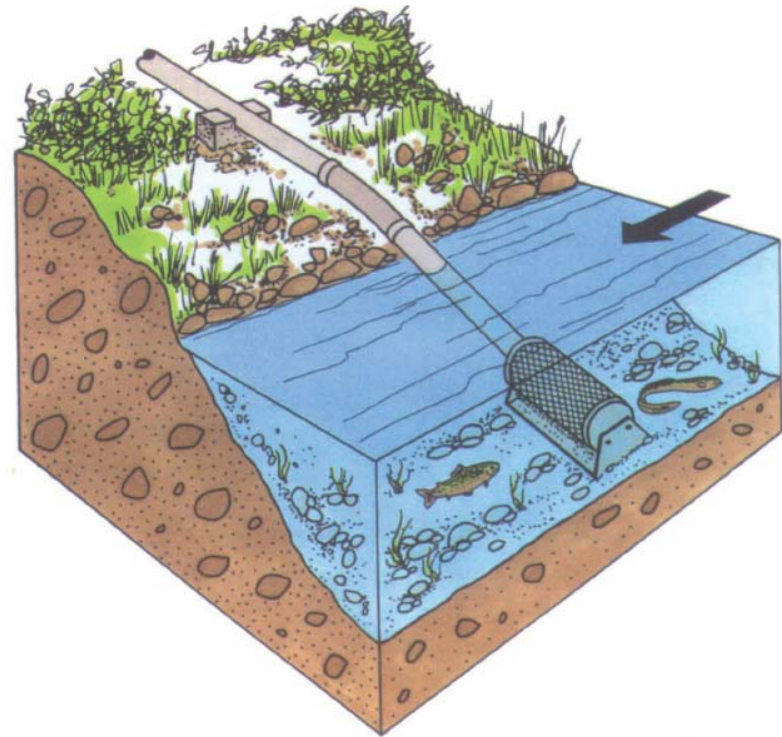
- Follow DFO's Operational Statements for temporary crossings, clear span structures, ice bridges and snow fills.
- Develop a comprehensive Sediment and Erosion control plan, to the satisfaction of DFO, prior to construction of the road.



Access Road – Water Withdrawal

Concerns

- Excessive amounts of water withdrawn from ice-covered waterbodies can impact fish through oxygen depletion, loss of over-wintering habitat and/or reductions in littoral habitat.





Access Road – Water Withdrawal

Recommendations

- Follow DFO's "Protocol for Winter Water Withdrawal from Ice-covered waterbodies in the NWT" and "Freshwater Intake End-of-Pipe Fish Screen Guidelines".
- Identify any streams or rivers considered for water withdrawal and consult with DFO on information requirements to ensure impacts to fish and fish habitat are avoided.



Access Road – Aggregate Sources

Concerns

- Unknown locations of aggregate sources including potential for additional spur roads and/or crossings





Access Road – Aggregate Sources

Recommendations

- Ensure that aggregates will not be removed from within the high water mark of any streams or rivers, and to identify borrow site locations such that potential stream crossings to access them can be identified.



Additional Info Required

- Develop and implement an Aquatic Effects Monitoring Program (AEMP) to monitor and detect change in the Prairie Creek aquatic ecosystem. A multitrophic approach (such as the INAC's 2009 Aquatic Effects Monitoring Program Guidelines) should be used. The AEMP should be within an adaptive management framework, where thresholds, triggers and management actions are identified.
- Develop a comprehensive Closure and Reclamation Plan in consultation with, and to the satisfaction of all interveners.



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Questions?

