



*Mackenzie Valley Environmental Impact  
Review Board – Public Hearing  
for Canadian Zinc Prairie Creek all-  
season road*

Véronique D'Amours-Gauthier and Jessica Taylor  
Fisheries and Oceans Canada  
Fort Simpson, NT  
April 26-28, 2017



## Overview

1. Fisheries and Oceans Canada (DFO) – Fisheries Protection Program
  - Mandate, Legislation and Policy
2. Technical review conclusions and recommendations
3. Questions



## DFO's Fisheries Protection Program - Mandate

The **mandate** of the Fisheries Protection Program is to maintain the sustainability and ongoing productivity of commercial, recreational and Aboriginal fisheries.

The Fisheries Protection Program has share responsibility for the administration and enforcement of the *Fisheries Act*.





# Fisheries Protection Program – Legislation

- ***Fisheries Act***
  - **Section 35** states that no person shall carry on any work, undertaking or activity that results in serious harm to fish that are part of a commercial, recreational or Aboriginal fishery, or to fish that support such a fishery
    - *Serious harm* is the death of fish, permanent alteration of habitat, or destruction of habitat
    - Prohibits serious harm to fish
    - Allows for authorization of impacts with conditions
    - Requirement for an offsetting plan
  - **Sections 20, 21**
    - Requirement for sufficient water, fish passage



# Technical Report and Technical Report Supplement Conclusions and Recommendations



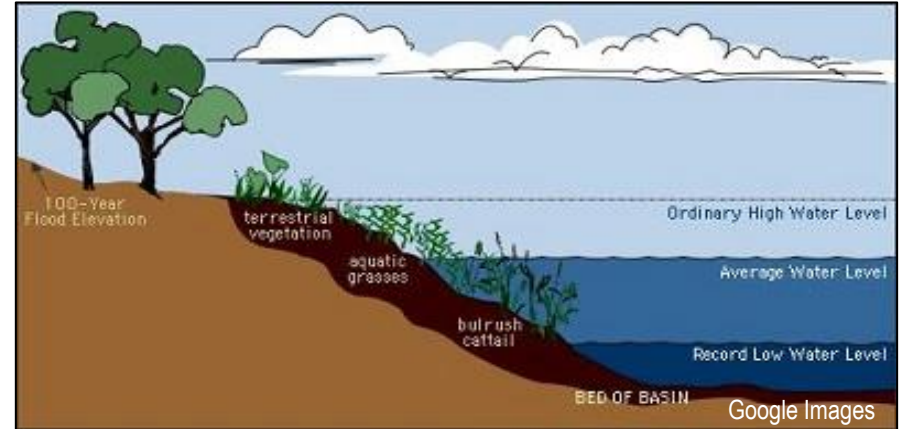
# High Water Mark Definition

## Issue

- Interpretation of High Water Mark

## Recommendation

1. For the Developer to submit a Request for Review and/or apply for a *Fisheries Act* Authorization for the Project.
2. For the Developer to utilize the terms found in the Fisheries Protection Policy Statement to describe impacts (*serious harm, permanent alteration, and destruction to fish and fish habitat*) instead of utilizing other terms.





# Sundog Creek Channel Realignment

## Issue

- Developer's interpretation of "no net loss"



## Recommendation

1. For the Developer to submit a Request for Review and/or apply for a *Fisheries Act* Authorization.
2. For the Developer to provide additional information such as hydrographs, modelling, and detailed engineered drawings for the two channels. This can be provided during the regulatory phase.
3. For the Developer to incorporate principles of natural channel design into the design of the proposed constructed channel.



## Riparian Vegetation

### Issue

- Improvement to existing road between KP 0 and 17

### Recommendation

1. For the Developer to confirm that the riparian vegetation to be removed between KP 0 and KP 17 is above the High Water Mark.
2. For the Developer to incorporate standard best management practices for the removal of riparian vegetation.







## Crossings

### Issue

- Proposed measures to avoid and mitigate *serious harm to fish*

### Recommendation

1. Implementation of all available best management practices to avoid, mitigate, or offset *serious harm to fish* as defined in the *Fisheries Act*.
2. Implementation of a water crossing maintenance and monitoring plan.
3. For the Developer to provide detailed plans of all water crossings that are fish bearing.
4. Clarify which return year was used to calculate *serious harm to fish*.



## Flows

### Issue

- Sundog Creek realignment

### Recommendation

1. Incorporation of a barrier to upstream fish passage into the designs.
2. Consider the possibility of a channel readjustment phase and develop a plan to mitigate the potential adverse effects.
3. Implement all available best management practices in the design of the proposed constructed channel to avoid and mitigate serious harm to fish as a result of the realignment.





# Dewatering and Water Withdrawal

## Issue

- Impacts to littoral habitat



## Recommendation

1. Submit a dewatering plan and incorporate best management practices.
2. Submit a Request for Review and/or apply for a *Fisheries Act* Authorization and use terminology define by Fisheries and Oceans Canada.



# Water Withdrawal

## Issue

- Impacts to littoral habitat

## Recommendation

1. Submit a dewatering plan and incorporate best management practices.
2. Install water level gauges.
3. Submit a Request for Review and/or apply for a *Fisheries* Authorization and use terminology define by DFO.
4. Clarify the timing of water withdrawal.





# Blasting

## Issue

- Avoidance and mitigation of effects of blasting on fish



## Recommendation

1. Utilization of an instantaneous pressure threshold limit of 50 kPa.
2. Avoid blasting during sensitive spawning periods.



Google Images



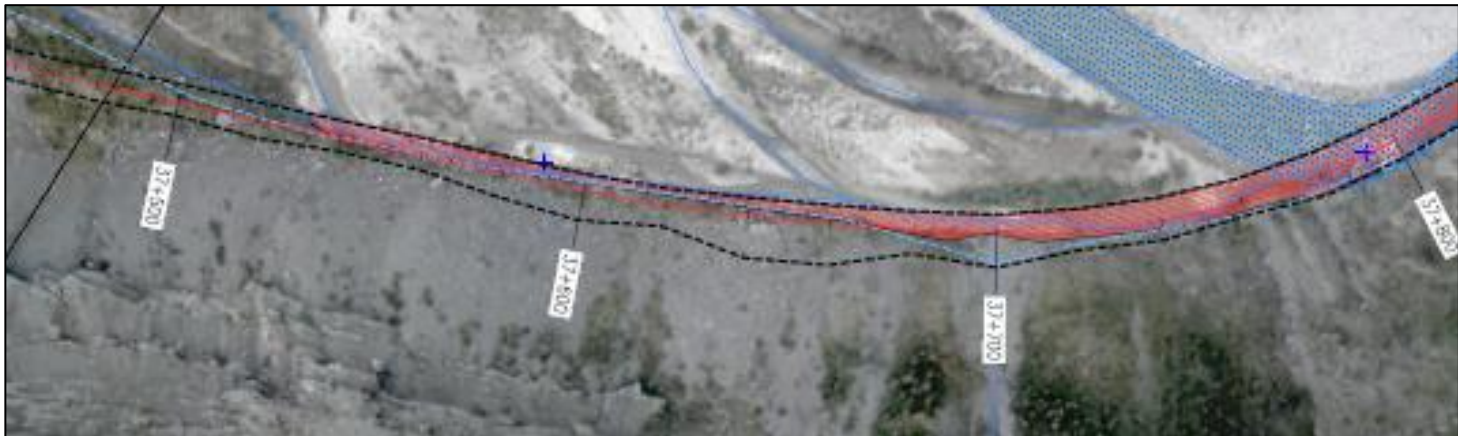
## Side Channel

### Issue

- Proposed construction of a side channel between KP 37.55 and 37.77

### Recommendation

- For the Developer to submit a Request for Review and/or *Fisheries Act* Authorization Application.





# Offsetting Options

## Issue

- Developer's offsetting proposal

## Recommendation

1. Submit a Request for Review and/or apply for a *Fisheries Act* Authorization.
2. Provide additional information such as hydrographs, modelling, and detailed engineered drawings for the two channels. This can be provided during the regulatory phase.
3. Incorporate principles of natural channel design into the design of the proposed constructed channel.



# Questions

