



Fisheries and Oceans
Canada

Pêches et Océans
Canada

Fish Habitat Management
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Suite 101 5204, 50e Avenue
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Your file *Votre référence*
EA0405-002

Our file *Notre référence*
SC04006

August 24, 2005

Mackenzie Valley Environmental Impact Review Board
c/o Mr. Martin Haefele, Environmental Assessment Officer
P.O. Box 938, 5102-50th Avenue
Yellowknife, NT X1A 2N7

Dear Mr. Haefele:

**RE: EA0405-002 Canadian Zinc Phase III Drilling, Information Request
IR0405-002-2**

Enclosed please find the Department of Fisheries and Ocean's (DFO) response to Information Request IR0405-002-2 as issued by the Mackenzie Valley Environmental Impact Review Board on July 12, 2005.

Please note this letter does not constitute authorization of these undertakings pursuant to the *Fisheries Act*.

Please contact me at (867) 669-4927 if you have any questions or wish to discuss any of the information response in more detail.

Sincerely,

Ernest Watson
Area Habitat Biologist
Fish Habitat Management
Department of Fisheries and Oceans - Western Arctic Area

CC D. Majewski, Area Chief, DFO-FHM
G. Fillatre, Fishery Officer, DFO-C&P
M. Fournier, Environment Canada
A. Wilson, Environment Canada
L. Seale, INAC
P. Spencer, INAC
C. Blyth, Parks Canada
K. Cumming, Parks Canada
P. Cobban, GNWT
A. Taylor, Canadian Zinc Corp.
D. Harpley Canadian Zinc Corp.

IR Number: IR0405-002-2
Source: MVEIRB, DCFN/Nahanni Butte
To: DFO
DAR Section: 2.1.1 Road Erosion, Stability and Construction
Terms of Reference Section: B-1 Road Development

Preamble

The DAR provided some information about the scope of DFO's site inspection. However, no information on any results of this inspection and any resulting direction or advice to the developer was available at the time the DAR was written. Since impacts on streams, fish, and fish habitat are one of the primary concerns in this EA, the results of the DFO inspection are key evidence in determining whether the development is likely to have significant adverse impacts on the environment.

Request

Please provide a report of the site inspection including:

1. The purpose and objectives of the site visit;
2. Any observations of concern, such as existing erosion or high erosion potential in the project area;
3. Any direction or advice given to the developer, including any potential need for a fisheries authorization; and
4. Any other result that may be relevant to the environmental assessment.

Site Visit Report, Canadian Zinc Corporation Phase III Drilling Program (EA0405-002) Road Network, July 20, 2005

Individuals present

DFO: Ernie Watson, Area Habitat Biologist, Yellowknife
Developer: Alan Taylor, David Harper (Canadian Zinc) and Glenn Todd (Dillon Consulting).

Preamble

The harmful alteration, disruption or destruction (HADD) of fish habitat is prohibited under Subsection 35(1) of the *Fisheries Act* unless authorized by the Minister of DFO. To comply with the *Fisheries Act*, developers with projects likely to affect fish habitat must either undertake their projects such that HADD is avoided or obtain Authorization for the HADD under s. 35(2) of the *Fisheries Act*. The proponent is first urged to examine all options to avoid a HADD, including relocation and/or redesign of the proposed project. If redesign of the project is not possible, then DFO advises the proponent apply for an Authorization from the Minister of DFO. In keeping with DFO's Policy for the Management of Fish Habitat, an authorization is not issued unless measures to compensate for the habitat loss are developed. DFO does not issue an

authorization in situations where adverse impacts to fish habitat are judged to be unacceptable.

DFO's review of the Canadian Zinc Corporation Phase III Drilling Program (EA0405-002) is limited to potential impacts of the project pursuant to the responsibilities of DFO under the fish and fish habitat protection provisions of the *Fisheries Act*.

Purpose of site inspection

The purpose of the site visit was for DFO to conduct a preliminary site assessment of the proposed development, and to provide advice and guidance to the developer in order to minimize the impact to fish and fish habitat resulting from the re-establishment of the existing road network and ford crossings of various creeks as described in the Developer's Assessment Report (DAR), Phase 3 Surface Drilling Exploration Program, Prairie Creek Mine (Canadian Zinc Corporation, May 2004).

Site 1 – Casket Creek Road Network

Concern: The developer proposes to use the existing road that closely follows Casket Creek to access a diamond drill area that borders Lease 2933 and Lease 2932.

Observations: Casket Creek, up to the proposed drill area, is likely fish habitat. Casket Creek is narrowly confined by the river valley, and the existing road network follows the creek very closely, crossing numerous times, and in some cases utilizes the creek itself (Photo 1; Figure 2: Map A of the DAR). As proposed, the maintenance and use of the existing Casket Creek road network to access the proposed drill sites would likely result in the HADD of fish habitat.

Relocating the road outside the floodplain of Casket Creek so that the road is not situated on the creek itself would likely not be feasible due to the steepness of the valley slopes.

Conversations with the developer indicate that while logistically difficult, the proposed drill sites can be accessed using the existing road network accessed via Henderson Creek Road network and Zone 1 (Photo 2; Figure 2: Map A of the DAR). Accessing the proposed Casket Creek drill sites via the Henderson Creek road network would minimize the potential impacts to fish and fish habitat and likely not result in the HADD of fish habitat provided appropriate mitigation is implemented.

DFO did not observe any other areas of concern.

Advice to the developer: To prevent a potential HADD of fish habitat of fish and fish habitat in Casket Creek, the developer should access the proposed drill area

via the existing Henderson Creek (Zone 1) road network and not utilize or conduct maintenance on Casket Creek Road.

Site 2 – Henderson Creek Road Network

Concern: To access the developers proposed diamond drill area in Zone 1 and Zone 2, the developer proposes to utilize the road network that closely follows Henderson Creek.

Observations: Henderson Creek is an ephemeral waterbody and is likely not utilized by fish. As part of previous authorized drilling activities (LUP MV2001C0022) the developer has already relocated the road network which was in close proximity to Henderson Creek to outside its floodplain. The utilization of the existing Henderson Creek road network to access the proposed drill sites in Zones 1, 2 and 3 will likely not result in the HADD of fish habitat provided appropriate mitigation is implemented.

DFO did not observe any other areas of concern.

Site 3 – Prairie Creek Ford

Concern: To access areas south of Prairie Creek, the creek will be forded at Galena Creek.

Observations: The proposed location of the Prairie Creek ford crossing (Photos 3 and 4) is composed of a shallow run / riffle habitat composed of larger gravel and cobble substrate. The proposed activities will likely have little impact on the habitat at the crossing site. DFO has no concerns regarding the proposed ford crossing of Prairie Creek provided appropriate mitigation is implemented.

Site 4 – Galena Creek

Concern: The lower portions of Galena Creek is know bull trout habitat. To access the proposed diamond drill areas in Zones 5, 6 7, 8 and 9, the developer proposes to use the existing road network that crosses lower Galena three times (Photo 5; Figure 2: Map B of the DAR).

Observations: The lower reach of Galena Creek likely provides important fish spawning and rearing habitat. The number and frequency of crossings of lower Galena Creek should be kept to a minimum.

It was suggested that the existing road along lower Galena Creek could be relocated to the southeast, outside the floodplain of Galena Creek. This would require fording Galena Creek once.

DFO did not identify any other areas of concern with the rest of the road network that is to be used to access Zones 5, 6, 7, 8 and 9 (see Figure 2: Map B of the DAR).

Advice to the developer: To minimize the impact to fish habitat of fish and fish habitat in Galena Creek, the developer should relocate the existing road so that only one ford crossing is required.

Site 5 – Big Quartz Creek Road Network

Concern: The lower portion of Big Quartz is known fish habitat. Although there are no proposed diamond drill areas in Zones 10, 11, or 12 (Figure 2: Map C of the DAR), in the future the developer may propose to use the existing road network that follows Big Quartz Creek to access these areas (see Figure 3: Map B and C of the DAR).

Observations: Big Quartz Creek is likely important fish spawning and rearing habitat. The existing road network follows Big Quartz creek very closely, crossing it numerous times, and in some cases utilizes the creek itself (Figure 6). The maintenance and utilization of the existing Big Quartz Creek road network to access the proposed drill sites in Zones 10, 11, and 12 may result in the HADD of fish habitat.

DFO did not observe any other areas of concern.

Advice to the developer: To prevent a potential HADD of fish habitat in Big Quartz Creek, the developer should not maintain or use the Big Quartz Creek Road. If developer plans to conduct exploration drilling in Zones 10, 11, and 12 require, these areas should be heli-drilled.

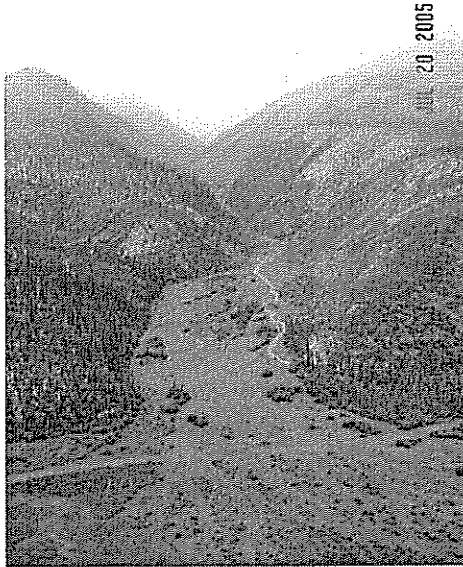


Photo 1. Casket Creek, looking upstream from Prairie Creek. The Prairie Creek winter road crosses the floodplain of Casket Creek at the bottom of the photo.



Photo 2. Casket Creek and road network, looking downstream from the Zone 1 access road towards the proposed drill area.



Photo 3. Location of proposed Prairie Creek ford crossing. Looking north, Galena Creek flows into Prairie Creek from the upper left.



Photo 4. Location of proposed Prairie Creek ford crossing. Looking from confluence with Galena Creek north (towards mine site).

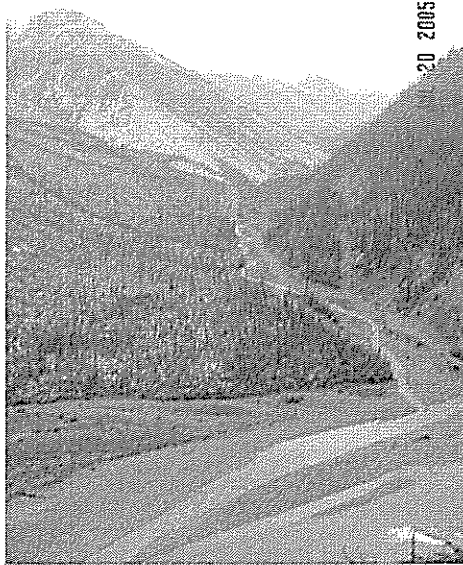


Photo 5. Lower Galena Creek and existing road network looking upstream from Prairie Creek.

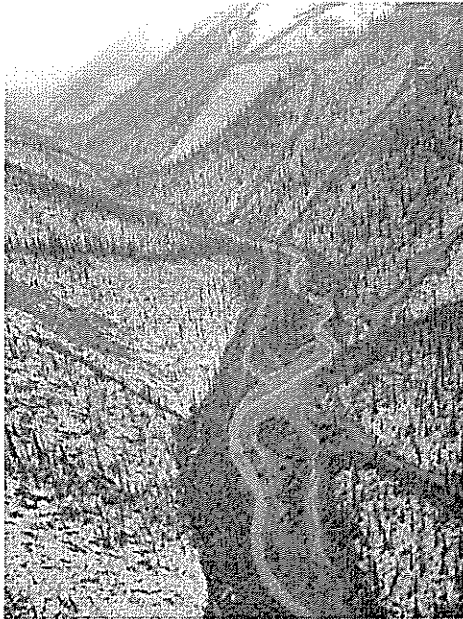


Photo 6. Big Quartz Creek looking upstream from Zone 9 to Zone 10.



Figure 1. Lower Galena creek: locations of existing road and proposed crossings (red), and example of potential alignment of the relocated road (blue).

