

Sarah Baines

From: Wilson,Anne [Yel] [Anne.Wilson@EC.GC.CA]
Sent: Tuesday, April 24, 2007 3:12 PM
To: Hanna, Bruce; Sarah Baines
Cc: Clarkin, Charity H; Murphy, Brent; Sheryl; sean kollee; Nathen Richea; Erika Nyyssonen; Watson, Ernest
Subject: RE: BHP proposed chloride discharge criterion for the Sable, Pigeon, Beartooth expansion

Hi all!

I was just talking to Bruce Hanna and we wanted to clarify the application of *Fisheries Act* Authorizations with respect to Horseshoe Lake, or in this case, the non-application.

If there was going to be a physical activity resulting in the harmful alteration, disruption or destruction of fish habitat, authorizations can be granted under Section 35 of the *Fisheries Act*. Examples would include in-lake construction of dams or dykes, draining of a lake, or other physical works which harm fish habitat.

Other types of changes to lakes frequented by fish, such as receiving effluent or minewater, are not covered by the Section 35 authorizations. The discharge of deleterious substances would be prohibited under section 36(3) of the *Fisheries Act*. One of the accepted measures of "deleteriousness" is the acute bioassay test, and this is also a condition of the water licence, that all effluent must be non-acutely toxic. There is no authorization instrument for deleterious discharges in the case of diamond mining or many other effluents. (There is provision for this for metal mines which are authorized by the Metal Mining Effluent Regs, and for Pulp and Paper).

In the case of Horseshoe Lake, we would want to look at what was predicted in the EA, and since chloride wasn't discussed at the time, we now need to estimate the likely changes associated with the proposed Cl discharges and evaluate what is an acceptable level of change when thinking about the size of the mixing zone. Providing of course that what is coming from Two Rock Lake is not deleterious!

Bruce, anything to add to this?
Anne

From: Hanna, Bruce [mailto:HannaB@DFO-MPO.GC.CA]
Sent: April 23, 2007 4:55 PM
To: Sarah Baines
Cc: Clarkin, Charity H; Murphy, Brent; Wilson,Anne [Yel]; Sheryl; sean kollee; Nathen Richea; Erika Nyyssonen; Watson, Ernest
Subject: BHP proposed chloride discharge criterion for the Sable, Pigeon, Beartooth expansion

Hi Sarah,

Based on the information available, DFO is concerned that the 313 mg/l threshold for chloride proposed by BHP may not adequately protect aquatic life. In addition, DFO does not agree with the use of the first 100 metres of Horseshoe Lake as a mixing zone. No impacts to fish and/ or fish habitat have been authorized by DFO for Horseshoe Lake and under the *Fisheries Act* DFO cannot authorize the deposit of a deleterious substance.

DFO agrees with the Independent Environmental Monitoring Agency that whatever the approved toxicological threshold for chloride is set at by the Board, it should be met at the outlet of Two Rock Sedimentation Pond (SNP station 0008-Sa3).

4/25/2007

If you have any questions, please give me a call.

Bruce

Bruce Hanna

Habitat Biologist | Biologiste, Habitat

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