## Louie Azzolini

From: SWilbur@entrix.com

Sent: Tuesday, June 04, 2002 1:09 PM

To: Louie Azzolini

Cc: tpearse@gulfislands.com; tblondin@tlicho.com

Subject: Re: FW: Environment Canada response to MVEIRB IR #1.1.69 and #1.1.70

JUN 0 4 20021 BG

Louie -

Based on your request for clarification of the Dogrib's IR relating to Section 12.6.5 (Cumulative Effects – Fish and Habitat), I have expounded (see attachment) a little further in the Preamble, and re-written our Request.

Please contact me at 604 943-4598 (or swilbur@entrix.com) if you require any further clarification. Cheers

Steve Wilbur

ENTRIX, Inc.

## Subsection 12.6.5 Fish and Fish Habitat (Cumulative Assessment)

<u>Preamble:</u> This subsection discusses a linkage between specific activities associated with the Project and the effects on aquatic organisms and habitat. The analysis, however, is restricted to only fugitive dust and increased access to fishing, and by the nature of the assessment approach, is not a cumulative impact assessment. The analysis is simply a reiteration and spatial extension of these two specific and independent potential impacts for the Project.

This linkage approach is linear and restrictive rather than global and cumulative. As a result, the analysis does not assess the effect of the Project on the interdependence of for example, various organisms and aquatic parameters, and does not consider the additive effect of a number of perceived or assumed moderate, low and negligible residual effects.

Cumulative effects analysis should consider all the project activities as a whole (both over various time frames and over various spatial distances), not individually and separately as with the existing impact analysis. It must be linked to all species and life stages potentially affected. It should look at a watershed(s) scale as well as individual environments.

Also, the current analyses are restrictive in that they assume all mitigation is 100% effective 100% of the time. This seems highly improbable. Impact analysis should consider impacts without mitigation, and then with various levels of mitigation. It may be that more or less mitigation will be required to reduce an impact, but that more stringent mitigation may be required to reduce cumulative impacts.

Request. 1) What are the local temporal and spatial cumulative effects of the Snap Lake Diamond Project? 1a) For example, what are the cumulative effects of <u>all phases</u> of the Project (including construction, operation and abandonment) on fish communities, aquatic organisms, aquatic habitat in Snap Lake and other nearby water bodies? 1b) How will all of the <u>spatially combined activities</u> associated with the project (including the mine, roads, spoil piles, sedimentation and treatment ponds, borrow pits, airstrips, buildings, water treatment, water withdrawal, water discharge, fuel storage, and any other structure or activity related to the project) have the potential to interact and cumulatively affect (negatively or positively) the aquatic environment?

2a) Further, what are the regional spatial and temporal cumulative effects of operating three diamond mines (and any other form of development or human activity) in the region on fish and aquatic resources and habitat? 2b) How do the combined immediate and combined future project activities of the region cumulatively affect aquatic resources?

These two requests can be analyzed in part, for example, by addressing the following two types of questions: a) What are the cumulative effects of continually elevated concentrations of various parameters on aquatic organisms and aquatic habitat in Snap Lake? b) What are the potential short-term and long-term downstream effects within the Lockhart Drainage Basin?