## NORTH SLAVE MÉTIS ALLIANCE

PO Box 2301 Yellowknife, NT X1A 2P7



February 10<sup>th</sup> 2007

Sarah Baines Wek'èezhìi Land and Water Board Box 32, Wekweeti, NT X0E 1W0 sbaines@wlwb.ca

Aquatic Effects Monitoring Program Plan for 2007-2009, BHP Billiton, EKATI Diamond Mine, December 2006

Dear Ms. Baines,

Thank you for the opportunity to comment on the aforementioned program plan. We found the information session held by BHP on November 21<sup>st</sup> and 22<sup>nd</sup> 2006 very useful and thought the presence of both Drs. Zajdlik and Schwarz a great asset to the delivery of the complex statistical information. We feel that the multivariate analysis conducted by Rescan is a great addition to the AEMP and that its set-up and usage should continue to be tailored in forthcoming AEMP. Our outstanding comments with the proposed program plan that have not been addressed in the December 2006 submission are as follows:

- 1. **Power analysis**: BHP still fails to commit to conducting a power analysis. The NSMA feels that a power analysis is a necessity to determine the effectiveness of the AMEP at detecting important changes. For this power analysis, we expect BHP Billiton to Consult and incorporate Traditional Knowledge when defining: 1) the fixed variables of alpha and target power (possibilities of committing a type I and type II error respectively), and 2) what is a significant effect size.
- 2. Critical Effect Size: BHP commits to "(e)valuate critical effect sizes appropriate for selected parameters measured in the field as part of the AEMP. Dr. Carl Schwarz will be consulted for guidance on the evaluation". We expect BHP to not only consult with Dr. Schwarz but also with all interested parties, in particular aboriginal groups who have a direct interest in the health of the aquatic environment. We firmly believe that setting specific values for what is determined a critical or ecological significant effect size for each parameter is key to the strength of the AEMP and to its ability to protect the aquatic ecosystem. This could be facilitated by a workshop as proposed by the Department of Indian and Northern Affairs.

3. **Summer Water Sampling**: We are still hesitant to support the removal of June and July sampling periods in favour of collecting replicates in early August. We understand the advantages of increasing sample size, however, as was also noted by Environment Canada in Appendix 2, we are not provided with temporal trends to determine whether August is the best representative for summer variability.

We would also like to inform BHP of our interest to participate in the Deformities, Eroded fins, Lesions and Tumours (DELT) assessment proposed as an addition to the fish studies. We agree that this study would be a great asset to the current program.

Sincerely,

Sheryl Grieve

Manager, Lands and Resources North Slave Métis Alliance