

**Notes from the  
Inter-Agency Coordinating Team  
March 24, 2000 Meeting**

**Participants:**

Scott Williams	BHP
John Witteman	BHP
Chris Hanks	BHP
Darren Unrau	DIAND Operations
Roxanne Beavers	DIAND Water Resources
Katherine Silcock	DIAND Water Resources
Tasha Stephenson	Department of Fisheries and Oceans
Alex Thomson	Independent Environmental Monitoring Agency
Anne Wilson	Environment Canada

**Absent:** Greg Cook                      DIAND Environment & Conservation.  
                    John Holman                      Independent Environmental Monitoring Agency

Anne Wilson chaired the meeting and Tasha Stephenson was present via telephone.

**1. Round Table Updates:**

**BHP: John Witteman** reported that the OEMP CD will include the Wastewater Management Plan & Waste Ore & Storage Plan updates. The water balance for Misery is different than what was originally suggested. The NWT Water Board & Agency will receive hard copies of the OEMP revisions for the public registry; CDs will be provided to other agencies. The combined water license and Environmental Agreement Annual Report will be released on March 31<sup>st</sup>. Impact 2000 Report will be out in April. The tender for the wildlife contract has been issued and the expected start date is April 15<sup>th</sup>. Dewatering of Misery started March 23<sup>rd</sup>. The warm weather may cause BHP to install another pump in order to speed up the process.

With regard to pumping, the discharge limit is 520 L/sec. The pumps operate at 400 L/sec. without the head. They are discharging along the streambed onto Lac de Gras ice, and will continue until water quality doesn't meet licence limits.

Regarding Fox, BHP will design the wetland, conduct baseline studies of Nero Lake (including surface drainage), and survey the area to determine the effect on terrestrial ecosystem, including density of plant communities. He suspects that effluent ammonia levels will not exceed 20 ppm, based on Panda experience

**Darren Unrau** asked about the water quality of mine water from the Panda pit.

**John Witteman** explained that he is interested in major ions and that trace metals were within the guidelines. The chloride levels are higher at 100m depth indicating deep ground water is being detected.

**Darren Unrau** asked to see the Panda/Koala water quality analysis of mine water. The **Agency** requested the information, as well.

**John Witteman** agreed to provide Darren & the Agency raw data sheets for minewater.

**Tasha Stephenson** outlined DFO's comments on the Fox amendment and asked if BHP was prepared to provide case study material on how land treatment has functioned in the North and a comparison of expected treatment of mine water vs. sewage from municipal waste, and the implications of the discharge of large volumes of water on the Tundra, among other information requests.

The group discussed phosphorus loadings and nitrogen uptake of plants. BHP will wait for NWTWB response before gathering the additional information requested as a part of the Fox screening. DOE has a document which analyses 3 sewage wetlands treatment systems in Chesterfield Inlet, Baker Lake and Repulse Bay, which is available if anyone wants to look at it.

**Tasha Stephenson** wanted to know if there was any resolution on what constitutes a complete fish-out study, since she was not at DFO when the discussions took place.

**Chris Hanks** explained that with respect to fishout studies, only Koala was comprehensively studied, and just metrics were done on other fishouts. Following discussions with Buster Welch (formerly with DFO) for all other lakes, the metrics would be reported to DFO, along with provision of ageing structures (otoliths and fin rays) and stomachs. BHP would provide the metrics and have tissue samples on hand, if necessary, and the interpretation would be left to DFO.

**Tasha Stephenson** understands that Koala still had 7 fish, after the fish out and that caused some controversy.

**John Witteman** explained that BHP fished the lake out intensely with gill nets and fish traps. He felt it was best to pull the lake down to get the small fish out of the rocks. BHP understands that they will not be required to do a full study for Fox but only provide metrics.

A large crew is coming to site to construct the camp and to prestrip Misery. An 8 million litre fuel tank will be constructed at Misery, and hydrostatic testing will be done using King Pond. Nuna Logistics is setting up a trailer camp, with Thinner Lake as the potable water source.

**Anne Wilson** asked whether concrete aprons were being installed to ensure that leakage will not occur at refuelling sites.

**John Witteman** is to address refueling pads. Sewage will be trucked to the main camp and inert solid waste will be landfilled within the waste rock pile. BHP expects an order-in-council to allow the Misery amendment to the lease to be signed on March 29<sup>th</sup>. Desperation and Carrie Lakes will be affected and BHP will need to amend the license and conduct a no net loss plan, unless the King Pond request is accepted by DFO. If DFO determines that King Pond does not require a destruction of fish habitat authorization, then BHP will apply for these other two lakes. BHP is also doing no net loss plans for Sable, Two Rock, Beartooth lakes, as well as, the Pigeon Stream.

**Tasha Stephenson** expects that DFO legal counsel will have a response to BHP shortly.

**Darren Unrau** asked if DFO had comments on the Misery amendment since under 5 metres of stream is being crossed.

**Tasha Stephenson** asked for the information to be emailed to her. Greg Cook is the best source for getting the information.

**John Witteman** reported that there is a lot of work on site, with the addition of 2 - 9 million L. fuel tank, the extension of the truckshop and truck warming shed. The pilings for the F wing will be put in place this summer Bulk sampling is complete, but they are still doing NQ drilling.

**Anne Wilson** requested that BHP provide drill return water samples for toxicity database.

**John Witteman** said circulation is usually lost, so difficult to obtain samples. This summer the Misery construction will be complete with lake being dewatered over the winter in order to decrease turbidity. The water will be discharged directly into Lac de Gras and they expect to reach ore by the end of Jan '01. The first bench will be excavated starting June or July. Once the winter road is in place, production on Misery will begin. BHP will decide which contractors to use in the fall.

**Chris Hanks** reported that BHP is in the final stage of writing the Beartooth, Pigeon & Sable Project environmental assessment (EA) document and is doing a conformity check with the Impact 2000 document to ensure consistency. Technical reports will be cited through out and appendices will include additional data. It will be given to the MVEIRB on paper and then CDs will be issued for both the EA document and the project description. Newest data will also be released on CD (raw data are not available electronically for older reports). BHP expects the review phase to be 5 months and if approved, the OEMP will be updated to include the new project.

Chris held a TK meeting but only Lorraine showed up, so will try again mid-April.

**DFO: Tasha Stephenson** has been working with Christa Domchek on the BHP file and has been reviewing old documentation on fish out studies. Responses to the Fox amendment have been submitted to DIAND and she will distribute copies to other departments, the Agency and BHP. Seepage Study are expected soon. The Fish Habitat Compensation Fund Advisory Committee has issued a Request for Proposals to the Aboriginal organisations/communities only, which has a deadline of April 30<sup>th</sup>. DFO will send a copy to BHP.

**Scott Williams** asked if Tasha and Darren would come to site when BHP is clearing the Diversion channel. The preparation work to unblock culverts will occur in early May. A site visit will be arranged.

**Roxanne Beavers** asked if anyone had comments on the seepage survey. Comments from DFO and DOE are forthcoming.

**Darren Unrau** has concerns because the pH levels are low and the waters will begin to flow soon. Consensus on the best way to deal with non-compliance issue is warranted in light of differing interpretation of the seepage survey results.

**Monitoring Agency: Alex Thomson** thanked everyone who participated in the Evaluation of the Monitoring Agency. The board will be meeting in both late March and April to finalise their Annual Report. She invited all IACT members and NWTWB to a meeting on April 28<sup>th</sup> to discuss the seepage survey results. Dr. Morin will be present.

**IACT members** felt the forum would be a good place to come to a resolution about the issue. The Agency will get in contact with everyone, including MVLWB and MVEIRB, once the final arrangements have been made. Decisions in relation to the seepage will be postponed until after the April 28<sup>th</sup> meeting.

**John Witteman** reported that the seepage from the Panda Waste Rock Storage can have a pH as low as 4.9 and the natural tundra waters average a pH of 5.4-5.9. BHP is going to study the coarse reject pile seepage further. If the water license requirement to maintain a pH over 6.0 does not get amended, then BHP will have to use lime and there will be a potential impact on vegetation. BHP will increase monthly snow and vegetation sampling in order to get a better determination uptake of metals.

**DOE: Anne Wilson** has been working on comments for the Fox amendment and the seepage survey. More samples are needed for the Kimberlite Toxicity Study in order to discount the impact of sewage effluent into Long Lake. She was also interviewed by MacLeod Institute as a part of the Evaluation of the Monitoring Agency.

**Chris Hanks** asked about the Interim Guidelines for Drilling on-Ice for Cambiex's Adrienne Fleming. BHP also wanted to know who were the air quality people for DOE.

**Anne Wilson** suggested Anne-Marie Henry, who usually deals with Oil & Gas, as well as, Karen MacDonald for mining.

**DIAND Inspections: Darren Unrau** is monitoring a fuel clean-up and exploration is done. No decision has been made to move out Box Car camp. He asked about restoration studies and the test plots on Cell B.

**John Witteman** explained that BHP has a contract with Harvey Martin, reclamation specialist from Calgary who has worked extensively on reclamation in Northern climates, including Russia. The test sites on Cell B will most likely be a part of a student's thesis. No reports are being prepared other than that by Janet Kidd but the report is not complete but he will update IACT as information becomes available. More studies on reaction on kimberlite and its effectiveness for reclamation will also be conducted.

**Darren Unrau** asked if BHP will be dewatering Long Lake after break-up.

**John Witteman** suggests mid-May since it is an early spring.

**Water Resources: Roxanne Beavers** introduced Katherine Silcock, who has been added to the DIAND Water Resources team. Water Resources will suggest to the MVLWB that responses to the seepage survey be delayed until after the April 28<sup>th</sup> meeting. In response to the Fox amendment, TAC is suggesting that BHP submit additional information. The Dyke B As-Built report is going to the

MVLWB for approval. The QA/QC is not approved. DOE still needs to take a look at it then it can be sent to MVLWB for approval.

John Witteman stated that with respect to the QA/QC approval the field methods should be removed, and non-water components should focus on basic QA/QC information. Anne concurred.

**Katherine Silcock** has been reviewing information and working on the Fox amendment screening.

**Anne Wilson** reported that Greg Cook has spoken with MVLWB and Matt Bender has been assigned the BHP file and will be attending IACT regularly on behalf of the MVLWB.

It was noted that the Interim A&R plan needs approval under the EA (it has been approved under the water licence).

**Next meeting will be on May 5<sup>th</sup>, 2000 at 1:15pm at the DIAND District Office. Rides will be available from downtown.**