

## Technical Leadership Group (TLG) Meeting Minutes August 23, 2005

USFS Forest Supervisor's Office  
3815 Schreiber Way, Coeur d'Alene, Idaho

**Call to Order and Introductions:** The TLG Chair, Phillip Cernera, called the meeting to order. He pointed out that the purpose of the meeting was to outline the recommendations and conclusions of the National Academy of Science (NAS) report and to identify the PFT's for each issue. After briefing everyone, Cernera called for introductions.

**NAS Report History:** Ron Roizen gave an overview of the history for the National Academy of Science report. He explained the reasons that the Shoshone Natural Resource Coalition and its science committee requested the study which are: 1) the Superfund expansion of the Box; and 2) blood lead testing as the local physicians did not see the effects of lead. Roizen said that additional information may be found at: <http://www.imbris.net/%7Eroizen/history.html>.

**NAS Technical Review:** Cernera opened up the NAS technical review for discussion with an explanation of the overhead spreadsheet that Anne Dailey (EPA) provided to outline the recommendations made during the meeting. Dailey reported that the regional EPA office is taking a hard look at the NAS report along with the EPA headquarters in Washington D.C. as it affects human health lead issues nationally. She said that some of the recommendations are bigger than Coeur d'Alene and there are a number of established work groups on how to address them.

**Summary:** Cernera indicated the sentences in the summary were general in nature. After discussion, it was determined to proceed with the information detailed in the chapters of the NAS pre-publication report.

**Chapter 1 - Introduction:** Dailey mentioned that the report laid out the conclusions and recommendations at the back of each chapter very succinctly. Cernera agreed that the technical information in the study was translated well by the NAS. Bill Rust also commented that the NAS did a good job.

Cernera mentioned that the report talked about groundwater issues in the Box, but did not identify a remedial design. Rog Hardy pointed out that Congress made it clear that it did not expect the NAS to recommend a specific remedial strategy for the site, or that remediation activity within the original 21 square mile Bunker Hill site be disrupted or adversely impacted in any way because of the study. Terry Harwood said that the report questioned how the OU's (operable units) were organized because there is a disconnect. He indicated that this was more of a hindsight issue.

Dailey indicated that a minor text change was needed for Appendix A, technical aspects of Superfund site.

**Chapter 2 – Historical Background:** Rust commented that he believed this section was good and covered everything.

Hardy brought up the issue of non-metals pertaining to the fertilizer plant. Another issue was the historical transportation aspects of the amount of ore concentrate that was brought into the Basin because there was more material smelted than produced in the valley. He asked about the issue of airborne vs. tailings contamination and feels that the report did not emphasize enough of the transportation aspects.

Roizen mentioned that the plume of contamination from the smelter was quite narrow and that blood leads decreased very dramatically in children outside the range of one mile from the smelter. He said that the issue of morphing an airborne toxin into a ground toxin contaminant was not addressed specifically in the NAS report. Of all the issues that were addressed, the SNRC science committee agreed that bioavailability was the main issue. Roizen said that the issue of iron oxide coming out of the smelter which is highly bioavailable had been confused with the low bioavailability of lead sulfite or galena. The NAS report agreed that better bioavailability work was needed in the future, but declined to apply that recommendation to the present Superfund site. Roizen pointed out that the science committee members were disappointed by this, however, there is nothing they can do now that NAS made that decision.

Upon discussion, it was determined that there were no issues to address in Chapter 2.

**Chapter 3 – Coeur d’Alene System:** Mike Beckwith (CDA Tribe) brought up two points pertaining to page 37 which are: 1) that Coeur d’Alene Lake is a major focus in the ultimate cleanup; and 2) it is an overall large scale watershed system that needs to be treated as such. Jim Hollingsworth (CCC and Lands Council) agreed with Beckwith on the system approach, but mentioned that in Chapter 2, page 19, that logging has impacts downstream. He believes that logging management practices need to be improved so they do not impact the system by causing silt to come down.

Jeff Johnson (Forest Service) indicated that more forest restoration work is being done now rather than new timber sales. He believes the effects of a few timber sales are not measurable, but would be interested in hearing more if there is new science or better models to calculate the basin-wide effects of the frequency and severity of flooding. Cerner recommended following up this issue at the next Basin Information Forum (BIF) or TLG meeting.

After further discussion of related issues which included sediment recruitment and TMDL implementation, it was determined that the main issues pointed to: 1) flooding and metals movement in the Basin; and 2) the nutrient issue on the St. Joe and its tributaries. Rust mentioned that flooding is a major concern in the Silver Valley in regards to systemic issues. Since Superfund cannot do flood control projects, he pointed out that we will be unable to deal with particulate lead until flooding can be addressed. Harwood asked the TLG for their support and assistance to gain the Basin Commission’s approval to manage these issues in the Basin work. Rust answered that the State Legislature originally set up the Basin Commission to have the authority to be a flood control district.

Roizen brought up a comment made by Rog Hardy at a past CCC meeting - that by getting into sediment and nutrient issues, the attention is turned away from the Superfund focus on mines and

metals and their historic responsibility for the contamination. Roizen indicated that if the systemic view of the NAS report dominates, then the no-action alternative for the LMP poses problems down the road because of the jurisdictional issues it may raise and it becomes the controlling feature for the entire Basin.

Cernera mentioned that the Tribe's view was to not carve out the lake from OU3 in the beginning and that they preferred a holistic approach. Because it was carved out, the lake has now become more of a problem due to lack of funding. Cernera stated that he agreed with Roizen that attention should not be diverted from the metals issues.

Harwood reminded everyone that the Basin Commission exists because of OU3. He suggested that everyone focus on the way that NAS did in regards to flooding - that it will damage the remedy that Superfund paid for. After a discussion of forest management practices, flood control measures, etc., it was decided that flooding issues would be put into an ICP Project Focus Team (PFT).

**Chapter 4 – Remedial Investigation:** Cernera opened the discussion on Page 90, last paragraph, regarding groundwater and that it will need a thorough understanding of the metals concentration dynamics, specific sources areas, and media which will require additional characterization. It was determined that this issue would fit under the Water Treatment PFT. Dailey mentioned that groundwater treatment will be expensive. She said that we can learn from Phase II of the OU2 work. The EPA is updating the '91 conceptual site model for OU2 with all of the new information and data.

Rust brought up other issues that were mentioned in the remedial investigation (RI) in regards to groundwater such as sampling, leaching tests, source identification, funding restraints and feasibility in order to really understand where all of the groundwater contamination (dissolved metals) is coming from. It was also discussed whether the targets were attainable and if a significant reduction could be made by adaptive removal. Rob Spafford suggested doing a comparison between the cost and the risk of making technical decisions without having perfect information. He indicated that in making decisions, you do not always have "perfect" information. Harwood explained that for some improvements, the cost may outweigh the benefits, or they may not be attainable under any circumstances.

Cernera indicated that any TLG member could participate in the PFT for this issue, but because of the technical issues, he recommended that it be brought back to the TLG for full discourse.

**Chapter 5 – Human Health Risk Assessment:** Roizen expressed his interest in human health and the need for universal blood lead testing of children. He believes it should be integrated in the health care system with funding from the State Legislature or the EPA in order to have children ages 1-4 tested annually. Rust feels that universal blood lead testing will prove whether there is a problem. The other problems are dissolved metals and particulate lead. If the ARARS can be waived in the case of dissolved metals, then significant reductions and impacts can be achieved with inexpensive, simple water treatment. For particulate lead, funding will be a problem for remedies that will work. Paul Woods discussed various options that may be available, but warned that we need to be careful of unintended consequences downstream.

The Human Health and Funding PFT's were identified to address these issues.

Upon discussion of an ICP to protect the remedy for human health issues in OU3, it was determined that this issue would fall under the ICP and Recreation PFT's.

**Chapter 6 – Human Health Risk, Use of the IEUBK:** This chapter was partly discussed during Chapter 5.

**Chapter 7 – Ecological Risk Assessment:** Dailey pointed out that ecological risk assessment should include remedy development as well. Brian Spears (USFWS) also agreed. Rust indicated that on the technical side it is difficult to come up with a remedy that is feasible with the scarce use of resources. He believes that the water quality standards have been set so high, that it makes it impossible to accomplish actual improvements. Cernera said that he believes the standards should be set high to be protective. Then slowly over time you re-evaluate, monitor, adaptively manage and look to innovative technologies in the future. Rust replied that with water quality, you set the standard as cold water biota and that sets the discharge standards for treatment. He then discussed the cost of treatment and that funding may be wasted with selecting the wrong treatment design. Harwood suggested that interim goals need to be determined in order to achieve the final goal.

Different treatment scenarios were discussed along with the process for interim waivers for ARAR's in order to achieve reductions. Further evaluation of site specific water quality standards and fish constraints are needed. For fisheries, there is sometimes a requirement to fully support the fish which may include a temperature limit. In some cases, this means turning everything into a cold water biota.

Cernera mentioned that one of the things that the Tribe is looking at in the lake is trying to get a native fishery back. After further discussion of various issues, the lake and monitoring PFT's were identified to investigate fish and benthic communities. From page 245, it was also identified to improve fish and wildlife habitat.

**Chapter 8 – Remediation Objectives and Approaches:** It was agreed that source identification of sediment moving downstream would be under the Streambank PFT and TLG. Dailey mentioned that this may be an opportunity for data gap filling. Currently, sixteen locations get annual assessments for sedimentation. Woods reported that acoustic Doppler back scatter testing is being conducted on suspended sediments at the mouths of the Coeur d'Alene and St. Joe Rivers. Once the transport relationship is developed, it will be able to estimate sub-concentrations, but a big event will be needed to extend the curve. Rust commented that most of the upstream contamination has been removed by the Upstream Trustees.

Regarding the lake management studies on page 306, they will fall under the Lake Monitoring PFT. It was determined that monitoring would need to continue and remedies developed for lake water quality issues. Funding sources will also need to be identified and continued into the future.

Ground water issues were discussed and these were identified to be under the Water Treatment PFT and the TLG in general. On page 305, Harwood pointed out that in establishing priorities for designing and implementing improvements, the EPA should consider the potential indirect costs and the environmental impacts of the remedies being considered. It was noted that

CERCLA and CWA studies need to be completed and the results evaluated in order to determine what work is worth doing. Dailey brought up land use practices to minimize flooding and prevent recontamination.

**2006 Work Plan Discussion:** Cernera brought up the 2006 one-year work plan that will need to be completed for the BEIPC meeting on November 9. Harwood mentioned that in the five-year plan, it states that there will be an ICP for OU3 by the end of 2006. He suggested that in order to be compatible with the 2006 plan, this needs to be added. Blood lead testing for children ages 1-4 is another item to add. Harwood said that he will talk to the CWA proponents, the state of Idaho, and EPA in order to start building a strawman for the TLG.

There being no further business, Cernera adjourned the meeting.