

## MEMORANDUM FOR RECORD

SUBJECT: Bradford Island Technical Advisory Group Meeting Minutes, 26 Mar 08

1. Attendees: Mark Dasso, USACE; Mike Gross, USACE; Carlton Morris, USACE; John Wakeman, USACE; Cathy Martin, USACE; Kitia Chambers, USACE; Scott Clemans, USACE; Carolyn Schneider, USACE; Jeff Wallace, URS; Laura McWilliams, URS; Christina Wheeler, URS; Heather Loso, URS; Usha Vedagiri, URS; Bob Schwarz, DEQ; Paul Seidel, DEQ; Mike Poulsen, DEQ; Jennifer Peterson, DEQ; Brian Cunninghame, Confederated Tribes of Warm Springs; Mike Karnosh, Confederated Tribes of Grand Ronde; Rose Longoria, Yakama Nation; Sheila Fleming, Ridolfi; David Farrer, ODHS; Jeff Lockwood, NMFS; via telephone: Taylor Aalvick, Cowlitz Tribe.
2. Meeting Location: URS, Portland
3. After attendees were introduced, Mark Dasso welcomed the group and summarized the goals of the meeting. The primary goals are to update the Technical Advisory Group (TAG) on ongoing activities, discuss results of samples collected to date and obtain feedback on the path forward.
4. The TAG agenda and presentation is enclosed at the following link:  
[ftp://ftp.usace.army.mil/pub/nwp/Bradford\\_Island/](ftp://ftp.usace.army.mil/pub/nwp/Bradford_Island/)
5. The results of the bass collected in the fore bay prior to sediment removal were discussed. USACE received the laboratory report on 10 Mar 08, provided them to Bob Schwarz at DEQ on 11 Mar 08 and sent them to the remainder of the TAG on 12 Mar 08. USACE and ODEQ put out a joint press release, tribal liaison contacted CRTFC and the tribes, and all the Community Advisory Committee members were contacted via email. The bass fishing community was contacted to communicate to fishermen. Bob Schwarz notified David Farrer of the health division who is contemplating a fishing advisory.
6. The data showed a wide range of results from typical Columbia River numbers (0.03 ppm) to very high levels (26 ppm), averaging 3 ppm. There is no apparent correlation to age or size of fish, or location caught, or lipid content. These fish were caught in 2006 by the Oregon Bass and Pan Fish Club, and according to their sizes are between 2 and 9 years old. The electrical equipment were removed in 2002 and the sediment removal occurred in 2007. The fish were chosen based on their limited home range and diet. The food web was discussed.
7. DEQ said these fish are comparable to the worst mile segment in Portland Harbor and DEQ's risk screening number is 1 ppb. The average in the CRTFC 1998 Columbia River study was 100 ppb.
8. David Farrar said that the Oregon process for preparing a fishing advisory was not cast in stone. The one done for Portland Harbor was based on the Public Health Assessment prepared by ATSDR. Since the PCB levels in bass are similar, the

Portland Harbor advisory is pertinent for Bradford Island bass. It will be several months before the health department prepares a specific advisory for this site. Mark expressed that the Corps would support the state's health recommendations, but requested that the Corps, stakeholder agencies and tribes be included in the process. The Portland Harbor advisory resulted in signs being posted on the Willamette river bank. There are no signs posted at Bradford Island for the earlier clam advisory.

9. USACE plans to continue collecting reference area bass (only 7 have been caught) to get an adequate comparison between reference and the fore bay locations as required in the work plan. At this time we have only 20% of the in water data back, and need to make decisions based on the proposed risk assessment. Rose Longoria from the Yakama Nation said she thought USACE should now be collecting bass downstream of the dam and should be sampling sturgeon in the Bonneville pool. John Wakeman said there is data for sturgeon in the pool done by Grant Feist from OSU. USACE had tried sturgeon and walleye collection as part of the 2005 fishing advisory collection event, but it was unsuccessful. DEQ Jennifer Peterson from ODEQ said that based on these results the uncertainty may be high enough to collect more tissue. USACE said that the study as designed is to show attribution and we should let it take its course. Other questions may be raised by the study, but it is too early to assess them. Sheila Fleming pointed out that Aroclor 1254 is the only apparent PCB found in the study so far, implying the attribution question is resolved, but Aroclor 1254 is the most common mixture used. Usha Vedagiri pointed out the study includes an Aroclor/congener analysis, is designed to address allocation and that after the reference data is included, fingerprinting could be an option.
10. Taylor Aalvick asked if EPA was involved. They have not been directly involved, but are aware of the work. We are plugged into the Columbia River Toxics Reduction Group and they are aware of our work and wish us to focus on Bradford Island. Bob Schwarz said DEQ is not aware of major PCB sources upriver in the Bonneville pool. USACE said there are no specific sources identified, but other agricultural and industrial sources are possible. Jennifer Peterson said the nature and extent of contamination downstream is in question.
11. The hatchery food issue was discussed. Studies of hatchery feed show up to 300 ppb PCB in food. Hatchery fish from Eagle Creek hatchery are released upstream in the pool and may constitute a large portion of small mouth bass diet.
12. Usha presented the Human Health and Ecological Risk Assessment plan, as described in the Work Plan. The food web model uses Aquaweb and receptors include bald eagles, osprey, anglers, mink and the exposure unit is the entire fore bay. She revisited the sample plan to collect collocated clams, sediment and crayfish and sculpin, with bass to complete the food web model, and the statistics required to compare the fore bay to the reference area.
13. The intent to sample 21 locations has been only partially successful. Originally in the fore bay, 11 of the 21 collocated sediment/clam locations were sampled successfully with the box core. Eventually, 19 locations in the fore bay have been

collected after divers were used in specific areas and all depositional areas have been covered. The original plan to collect in segments has changed to collect where the habitat is available, especially in the reference area. USACE elected to analyze all samples rather than choose 14 of the original 21 sample collected. The questions was asked why we did not collect specifically in the former removal area (after removal). Samples were collected in those areas prior to the removal, but post removal data would not be indicative of post removal conditions since they have not had time to stabilize. The question was also asked why we did not collect sediment and clams in Goose Island Slough where the majority of fore bay bass were caught. It was not considered since the bass range is the entire fore bay, but it may be a data gap to consider.

14. After six weeks in the field, only sculpin collection was not successful. Only 12 individual fish were collected when we needed 35 to 40 samples of 3-5 fish each (80 g per sample). We have 16 fish collected in the fore bay in 2006 (pre-removal) in the freezer, and we could analyze individual fish for only a short list of analytes beginning with congeners, but USACE's preference is to collect sculpin after the removal. Jeremy Buck could not attend today's meeting so USACE had a phone call with him on 25 Mar and discussed sculpin collection. Sculpin were the best species because of their site fidelity. He said electroshock and set lines are most successful, but take permits are needed. USACE will pursue take permit and sculpin collection in the fore bay and reference area this summer. USACE will attempt to use an existing USGS electroshock permit if possible. The use of two year old sculpin is still possible as a fall back. (Note: Subsequent discussions with USGS reveals that they do have an existing permit that would cover the forebay and reference areas and that they could possibly collect sculpin as early as June.)
15. The pre-removal samples collected in the removal areas were discussed. They show a lower level of contamination in sediment and clams than earlier sample events. The intent for these samples is to get a BSAF for higher level of contamination range. The relationship between sediment and clam is not always accurate depending on TOC, lipid content and the amount of filter feeding done by the clam. Also, the relationship is linear up to a point, as the clam will accumulate PCBs at a lower rate at higher PCB sediment concentrations.
16. The upland QAPP was summarized. Data gaps outlined in the management plan to be filled by this QAPP and sampling were reviewed. Five monitor wells are being currently constructed based on the January 2008 memo reviewed by the TAG. USACE owes Ridolfi responses to their comments. No soil samples are being collected in the wells being drilled as there is no data gap associated with soils in those locations. Those comments were incorporated into the sample collection, but responses have not been formally provided. Responses will be provided in an email, and they will be incorporated into the upland QAPP which is being prepared for USACE review. TAG review will be in June 2008. A seep survey was conducted on 24 Mar 08. 4 possible seeps located north of the landfill were flagged for sampling concurrent with groundwater. The first round of samples will be collected in mid April.

17. Other future milestones include: 1) collection of bass and sculpin this summer; 2) SPMD results from the removal in July; 3) Post removal sample results in late summer; 4) the final risk assessment in December 2009.
18. At the next TAG on the afternoon of May 29 the TAG will have had the upland QAPP to review so we will be discussing comments and questions on the upland QAPP. We will also have the 7 reference bass data to review, and the proposal for sculpin collection.