

**RMP Technical Review Committee Meeting  
June 26<sup>th</sup>, 2006  
San Francisco Estuary Institute  
Meeting Minutes**

Attendees: Mike Connor (SFEI)  
Jay Davis (SFEI)  
Bridgette DeShields (BBL/WPSA)  
Ben Greenfield (SFEI)  
Mike Kellogg (City and County of San Francisco)  
Rob Lawrence (US Army Corps of Engineers)  
Jim McGrath (SFEI Board Member)  
Aroon Melwani (SFEI)  
Trish Mulvey (SFEI Board Member)  
John Prall (Port of Oakland)  
Francois Rodigari (EBMUD)  
Paul Salop (AMS)  
Dave Schoellhamer (USGS)  
Karen Taberski (RWQCB)  
Bruce Thompson (SFEI)

**1. Introductions and Approval of Agenda and Minutes**

Dave Tucker was unable to make the day's meeting; Ms. Taberski agreed to serve as chair. Ms. Sedlak indicated that David Dwinelle had retired from the US Army Corps of Engineers; Rob Lawrence will serve as the new representative from the Corps. Ms. Sedlak welcomed Mr. Lawrence and thanked him for his participation on the TRC. Ms. Sedlak gave a brief update on the action items from the previous meeting in March. The development of a five-year plan for the RMP and a meeting of the workgroups with the TRC have been deferred until after the redesign of the Status and Trends (S&T) program is completed. Discussion of the winter sampling/episodic toxicity sampling will be conducted as part of the redesign process. An update on the power analysis for the S&T and the benthic meeting were items on the day's agenda.

Jay Davis indicated that a discussion of the cormorant study would also be included in the redesign process. Dr. Davis indicated that based on the EEPS advisory committee's approval of the incorporation of cormorant eggs into the program, he had authorized the collection of eggs for 2006 in absence of the TRC approval. Subsequent discussions indicated that the TRC preferred to wait and consider egg monitoring in the broader context of all elements in Status and Trends, and not necessarily sample in 2006. Dr. Davis acknowledged his error and stated his intent not to repeat it. If the TRC decides to include egg monitoring in S&T, Dr. Davis suggested that archiving the 2006 egg samples for analysis in 2007 would be a way to avoid this error having an impact on the budget.

**Action item: Include action items from the June 2006 meeting into the action items previously developed.**

**2. Information: January Steering Committee Report**

Meg Sedlak provided a brief summary of the Steering Committee (SC) meeting on April 17, 2006. Ms. Sedlak summarized the major discussion points from the April Steering Committee (SC) meeting. Ms. Sedlak indicated that the SC approved the carryover of unspent labor, subcontract, and direct costs from the 2005 budget into the 2006 budget (i.e., \$61,394 in unspent labor, \$135,638 in unallocated subcontracts, and \$3,914 unspent direct costs). This additional funding will be used to finish 2005 tasks including the small fish report, the dredged material study, the impacts of dredging on the food web study, and the 2003 sport fish report. In addition, \$50,000 was allocated to new tasks including the power analysis and \$50,000 was also reallocated to the contingency funds.

Other topics discussed at the SC meeting included the approval of the transfer of up to \$1 million of RMP funds from the LAIF to Wells Fargo Certificate of Deposits (CDs) and the potential loss of revenue to the RMP as a result of the decreasing in-Bay disposal of sediments. The SC approved the transfer of funds to CDs as a means for increasing RMP revenue. With regard to potential revenue shortfalls as a result of reduced in-Bay disposal, a committee will be formed to address this.

**3. Discussion: Update on Prioritization of Status and Trends Elements**

Jay Davis indicated that the goal of the prioritization process was to assure that the data being collected was meeting the information needs of the RMP participants and the regulators. The goal of the redesign would be to revise the program based on emerging issues such as new contaminants or new knowledge regarding processes in the Bay (e.g., revised contaminant loads, new understandings about the erosion/deposition of sediments, etc.). One of the tools to assist in this process of designing the program is power analysis. The power analysis will help to determine the number of samples to detect a trend or to see an exceedance of a threshold with a given certainty. Ben Greenfield presented the general approach to be used and the statistical methods and comparisons being used for the power analysis. Mr. Greenfield requested comments on the approach. A discussion ensued regarding whether the comparison should be a one-tailed test or two-tailed test (e.g., one tail would indicate whether there was a significant exceedance; two-tail would indicate whether there was a significant exceedance or reduction). Karen Taberski recommended that Ben contact Richard Looker at the RWQCB.

Based on the power analysis conducted to date, Ben noted that PCBs, not copper/nickel, dictated the number of sites to be sampled in the South Bay. Ben suggested that to optimize the sample design, it might be appropriate to consider different sampling regimes for each contaminant. There was some discussion of collecting data more frequently, particularly if there was an opportunity for implementation of management strategies (e.g., management of mercury in the South Bay Salt Pond Restoration Project).

Ben posited several alternatives: reallocating samples based on the power analysis; reallocating samples based on the area of each segment; and decreasing sample frequency (e.g., reducing chemical analyses to every 3<sup>rd</sup> year). The group agreed that it is useful to continue the historic fixed sites. Jim McGrath suggested that it might be appropriate for the groups (e.g., wetland restoration groups) that are causing significant changes in the Lower South Bay to consider funding some of the stations in the Lower South Bay.

Meg Sedlak summarized a memorandum proposing an all-day workshop for the redesign and queried the group as to whether this would be useful. The TRC supported this idea. Ms. Sedlak outlined some of the information needs for the workshop: proposed elements; expected value; cost; sampling design and power analysis; expected management actions; and how rapidly an answer is desired. The group discussed the importance of having the Status and Trends program address seasonality.

**Action item: Ben Greenfield to contact Richard Looker to discuss whether to use a one-tail or two-tail test.**

#### **4.0 Selection of Pilot and Special Studies 2007**

Meg Sedlak stated that approximately \$300,000 is available for 2007 for pilot and special studies. The studies that were presented in March were ranked by the group. In addition, members of the EEPS scientific advisory board reviewed the EDC proposal recommended that this proposal be referred to the EEPS workgroup. Similarly, the newly-formed Emerging Contaminant Workgroup reviewed the pyrethroid proposal and recommended that it be coordinated with the episodic toxicity program. The Emerging Contaminant workgroup gave a strong recommendation to the perfluorinated and pharmaceutical studies. Ms. Sedlak indicated that AXYS analytical was conducting the analyses for the pharmaceutical study pro bono (an in-kind donation of approximately \$25,000). Five proposals were ranked high enough that additional scopes of work were requested: Small Tributary Loading; the Stormwater Sewershed Outfall Sampling, the Contaminant Fate and Bioaccumulation Model; the Emerging Contaminants: PFOS and Pharmaceuticals; and Remote Sensing in the Bay. In addition, at the request of several TRC members a sixth proposal to supplement the existing EEPS small fish study was submitted. The TRC ranked the Small

Tributary – High and requested that the sewershed outfall study be limited to three, rather than five sites. The emerging contaminants study was endorsed by the group. It was requested that the remote sensing project and the small fish project be broken down by tasks. The TRC agreed to submit new rankings in time for the SC meeting on the 17<sup>th</sup>.

Ben Greenfield elaborated on the small fish proposal. Jim McGrath asked whether the RMP had coordinated with the Department of Fish and Game because it was his understanding that part of their restoration permit included monitoring in the North Bay (Napa Salt Ponds). Ben Greenfield indicated that the RMP small fish project is coordinated with the Fish Mercury Project that is sampling small fish in Suisun, Napa and Sonoma. Karen Taberski indicated that the Board was particularly interested in organics in small fish for the development of TMDLs.

Trish Mulvey asked whether contingency funds could be used to fund high flow events at the Guadalupe River and requested that this be put on the agenda for the October 3<sup>rd</sup> TRC meeting.

John Oram provided additional details regarding the remote sensing project. In the first task, it would be determined whether suitable satellite imagery exists for large storm events. The second and third tasks would quantify the amount of sediment coming in from the Delta and exiting out the Golden Gate. The last task would conduct actual field measurements after a storm event to determine the amount of contaminants exiting the Golden Gate. Jim McGrath was concerned that it would be difficult to translate sediment loads from a two-dimensional photo.

**Action: Ben Greenfield to contact Department of Fish and Game and BCDC to determine whether small fish sampling is being conducted in the North Bay. Discussion of use of contingency funds for funding Guadalupe River sampling at the next TRC meeting (October 3<sup>rd</sup>).**

**5. Lunch Time Presentation on the Fish Mercury Project and the Bioaccumulation Review for SWAMP**

Jay Davis gave an update on the CalFed Fish Mercury Project and a recently completed bioaccumulation review paper for SWAMP.

**6. USGS Sampling Sites**

Dave Schoellhamer explained that many contaminants are associated with particles and therefore, continuous monitoring of suspended sediment concentrations can serve as a proxy for estimating contaminant transport in the Bay. At present, the USGS monitors six sites: Mallard Island, Benecia, San Pablo Bay (Hamilton Aquatic Transfer station), Point San Pablo, Alcatraz, and

Dumbarton Bridge. The question for next year's sampling season which begins October 1 is whether the USGS should discontinue monitoring Alcatraz in favor of developing suspended sediment flux calculations at Dumbarton. Dave Schoellhamer indicated that the stations were not equivalent in terms of costs and that developing suspended sediment flux calculations at Dumbarton would require additional equipment and would cost more. The rationale for the Dumbarton station is that there is very little information on flux of sediments from the South Bay. This information would be very useful in light of the wetland restoration efforts that are occurring at the South Bay Salt Ponds. The rationale for dropping the Alcatraz station is that there is four years of data already collected at the site and the data is not currently being used for management decisions. Dr. Schoelhammer indicated that he would need a decision by September.

Ben Greenfield indicated that Joy Andrews was collecting Total Suspended Solids at Dumbarton and that Dave Schoelhammer might want to coordinate activities with Dr. Andrews.

Dr. Connor suggested that the USGS effort was funded by the Army Corps and that they should have the ultimate say in which stations were funded. It was recommended that Meg Sedlak contact Jay Achs and Ellen Johnck to get their opinion. In addition, Ms. Sedlak should confirm whether Steve Ritchie of the South Bay Salt Ponds would be willing to supply money to purchase additional equipment for the Dumbarton site (\$20,000 to \$40,000). Ms. Sedlak to send out an e-mail on this to the TRC.

**Action item: Meg Sedlak to contact Jay Achs and Ellen Johnck regarding utility of Alcatraz site. Ms. Sedlak to confirm whether Steve Ritchie of the South Bay Salt Ponds would be willing to supply money to purchase additional equipment for the Dumbarton site (\$20,000 to \$40,000). Ms. Sedlak to send out an e-mail on the responses to the TRC.**

## **7. Information: Benthic Workshop**

Bruce Thompson gave a brief overview of the Benthic Workshop that was held at the RWQCB on May 23<sup>rd</sup>. The agenda, minutes and presentations from this workshop are posted on the SFEI web site.

Based on a recommendation from the EEPS advisory panel, Bruce Thompson convened a workshop with scientists, regulators and stakeholders to discuss the sediment quality objectives, benthic assessment methodologies, and benthic studies being conducted by the USGS and DWR.

Some of the areas in which consensus was reached were: sediment quality objectives will include benthos; the triad approach (e.g., sediment toxicity, chemistry and benthos) is a useful tool; and the synthesis of four types of benthic

assessments appears to give an accurate characterization of the Bay. Several scientists were skeptical that benthic assessments can differentiate between physical disturbances to the ecosystem (e.g., changes in rainfall, flow, etc.) versus chemical effects.

DWR is conducting benthic assessments in the North Bay and will move from a fixed design to a randomized design. One possibility that the RMP would like to explore is using the same sampling design so that efforts are not duplicated. Sarah Lowe/Bruce Thompson will investigate this possibility. At present, DWR is sampling at four sites in the North Bay. The TRC endorsed this effort to find collaboration between the two programs.

**Action item: Bruce Thompson/Sarah Lowe to explore possibility of coordinate DWR benthic assessments with the RMP sediment chemistry sites.**

#### **8. Information: Update on the Pulse and Annual Meeting**

Jay Davis provided a revised outline for the Pulse and indicated that the following articles were completed: PCB Distribution in Urban Watersheds; Phytoplankton; and Pyrethroids. The first installment of the Pulse will be sent out on June 28 with comments due two weeks later.

With regard to the Annual Meeting, the TRC decided to eliminate the discussion of the Status and Trends Redesign in favor of a discussion of Sediment Quality Objectives by Chris Beegan and Steve Bay.

#### **9. Update on Workshops and Workgroups**

Daniel Oros briefly summarized the pyrethroids workshop that was sponsored by the RMP. The agenda, meeting minutes, and presentations are posted on the SFEI web site. Daniel also gave a brief overview of the PBDE conceptual model that he and Dr. Werme are preparing. The RMP funded the costs for analyzing wastewater (2005 PS/SS subcontract \$25,000 allocated, approximately \$9,000 spent). Because fewer samples were collected, Dr. Oros requested that the remaining funds be transferred to labor (\$16,000) in 2006. The TRC approved this transfer (Mike Kellogg motioned; Karen Taberski seconded; approval by TRC). Daniel Oros also mentioned that the RMP is hosting a PAH in Sediment Workshop on July 20<sup>th</sup> at USEPA in San Francisco.

#### **10. Information: Program Update and Laboratory Data Status**

Meg Sedlak passed out a graphic showing that almost all of the 2004/2005 data have been received. She briefly summarized key highlights from the workgroup summary that was included in the TRC package. Ms. Sedlak gave a brief summary of the newly formed Emerging Contaminant Workgroup, which met on

June 1<sup>st</sup>. The meeting discussed methods to identify new contaminants, methods to rank chemicals, and specific contaminants that the RMP might want to consider. Ms. Sedlak also passed out Scorecard; the major accomplishments this quarter were QA/QCing all of the 2004/2005 data in preparation for the Pulse and Annual Meeting.

The meeting was adjourned at 3:00 pm.

## ACTION ITEMS

ACTION	WHO	STATUS
Develop a Five-Year Plan for the RMP that addresses management objectives and questions	Jay Davis	To be conducted after preparation of all workgroup five-year plans.
Convene a meeting of the workgroups with TRC to discuss long-term plans	Meg Sedlak/Jay Davis	To be conducted after completion of a five-year plan for RMP
Convene a meeting of the winter sampling and episodic work groups	Meg Sedlak	Episodic toxicity to be discussed at TRC meeting
Power Analyses: Ben Greenfield to discuss with Richard Looker of the Water Board whether use of one-tail or two-test is more appropriate	Ben Greenfield	Richard Looker recommended using a one-tail test.
Contact Department of Fish and Game and BCDC to determine whether small fish sampling is occurring in the North Bay.	Ben Greenfield	
Discussion of use of contingency funds for funding Guadalupe River sampling at the next TRC meeting (October 3 <sup>rd</sup> ).	Meg Sedlak	On the agenda
Contact Jay Achs and Ellen Johnck regarding utility of Alcatraz site. Confirm whether Steve Ritchie of the South Bay Salt Ponds would be willing to supply money to purchase additional equipment for the Dumbarton site (\$20,000 to \$40,000). Send out an e-mail on the responses to the TRC.	Meg Sedlak	
Coordinate DWR benthic assessments with the RMP sediment chemistry sites	Bruce Thompson/Sarah Lowe	Working on this.