RMP Technical Review Committee Meeting
September 20th, 2005
San Francisco Estuary Institute
Meeting Minutes

In attendance: Brian Anderson (UC-Davis), Christopher Conaway (UC-SC), Bridgette DeShields (BBL for WSPA), David Dwinelle (USACE), Russ Flegal (UC-SC), Andy Gunther (AMS), Dane Hardin (AMS), Jim McGrath (SFEI Board of Directors), Karen Taberski (Regional Board), Paul Salop (AMS), Dave Tucker (City of San Jose), Mike Connor (SFEI), Jay Davis (SFEI), Rainer Hoenicke (SFEI), Lester McKee (SFEI), John Oram (SFEI), and Meg Sedlak (SFEI).

1. Introductions and Approval of Agenda and Minutes

Dave Tucker opened the meeting by asking for comments on the June 2005 minutes. No comments were made and the Committee approved the meeting minutes. Meg Sedlak indicated that most of the action items were being addressed as indicated in the table.

Action item: Include action items from the September 2005 meeting into the action items developed from the June 2005 meeting.

2. Information: July Steering Committee Report

Meg Sedlak provided a summary of the Steering Committee (SC) meeting on July 18th, 2005. The major items from the meeting were a discussion of the financial audit that SFEI and the RMP went through in April and a discussion of the general elements for the RMP for 2006. No significant issues were identified as a result of the external audit. Ms. Sedlak indicated that a proposal for funding the South Bay Salt Pond had been brought up at the meeting; however, without a review from the TRC on the technical merits of the proposal, the SC felt it was premature to discuss it. The SC requested assessment of this proposal by the TRC at the next TRC meeting.

3. Information: Summary of the Synthesis Articles

The RMP will begin a process of evaluating and prioritizing the program elements conducted in the Status and Trends Program. As part of this process, the authors of four synthesis articles presented their findings and recommendations for the Program. Jay Davis presented information on PCB concentrations in sediment, fish, bivalves, and bird eggs. Concentrations in water were not a major focus of the synthesis because they are not the best indicators of temporal trends or spatial variation. Fish and bird eggs are important indicators of impairment to the Bay and are an important impetus for potential regulatory action such as 303 (d) listings. The bivalve data provided good trend information particularly when data from the State Mussel Watch program is included. Additional information is

needed to quantify PCB sources (e.g., urban runoff, delta outflow and buried sediment) and sinks (e.g., loss through the Golden Gate and through degradation).

With regard to emerging contaminants, Rainer Hoenicke recommended that the Program consider conducting chemical fingerprinting every five years, developing maximum allowable toxicity guidelines for multiple pollutant effects, and developing an expert panel. The TRC endorsed the latter concept and suggested that Dick Luthy of Stanford University (perfluorinated compounds), David Epel of Stanford University – Hopkins Marine Lab (emerging contaminants) and Shane Snyder of USEPA (pharmaceuticals) might be appropriate panel members. Jim McGrath suggested that a member from the biotech community be included to discuss new types of pharmaceuticals. Rainer Hoenicke stated that he thought Christian Daughton of USEPA would be an excellent resource. With regard to fingerprinting, Andy Gunther questioned how this would be done when different chemicals currently require very different cleanup, extraction, and analyses. Rainer was uncertain as to the specifics but was confident that it could be done. The Committee commented that the fingerprint exercise should not be conducted in a vacuum and perhaps other programs could participate.

Russ Flegal presented an introduction to his work on metals in the Bay. He began with the findings and recommendations of an expert panel review that he participated on looking at the National Status and Trends Program. The RMP is exceeding many of the recommendations made by this panel. Kit Conaway presented the results of his mercury analyses. Dr. Conaway noted that there were trends in the sediment mercury data that appeared to be a function of sediment type. Seasonal variations were noted in a monthly study conducted by USGS in the vicinity of Palo Alto. Seasonal variation was also noted in the mercury water samples.

Brian Anderson of UC-Davis gave a presentation on sediment toxicity to amphipods and mussel embryos. Mr. Anderson also noted a strong seasonal component – in the winter, sediment is more toxic than in the summer. Understanding the cause of the toxicity has been a major focus for Mr. Anderson this year. His group is in the process of developing better Toxicity Identification Evaluations (TIEs) to identify the source of the toxicity. Preliminary tests suggest that divalent cations, such as copper, may be causing the toxicity to mussel embryos. He recommended that the Program consider conducting winter sampling and sampling at the margins of the Bay. Mike Connor was intrigued by the fact that the sediment toxicity tests seem to implicate copper as reportedly the metal is complexed with EDTA and unavailable. What the copper toxicity to bivalves means for Bay organisms is an important management question.

Action item: Convene an expert panel to discuss and recommend new emerging contaminants.

4. Action: Presentation of the Findings of the Bivalve Report

Dane Hardin presented data regarding the bivalve program. Currently, bivalves are placed in the Bay in bags and cages. Frequently, the bags are subject to damage as a result of predation. A mini-study was conducted by AMS to identify whether there were significant changes in growth or mortality as a result of the housing that was used. No difference was observed. Mr. Hardin recommended that cages be used and the maintenance cruise be eliminated at a cost savings of approximately $10,000. The TRC approved this recommendation.

5. Discussion: Prioritization of the Status and Trends Program and Potential Inclusion of New Elements

Meg Sedlak stated that SFEI would like to begin a process of evaluating the Status and Trends program. The purpose of the discussion at the meeting was to solicit input and discuss methods for evaluating the program. Ms. Sedlak stated that it was particularly timely to begin this process now for the following reasons: the synthesis articles have just been completed and many authors had recommendations for the Program; new management questions and objectives have been developed; the Program Review was recently conducted and recommendations were made for increasing the effects component of the Status and Trends program; the workgroups have made recommendations for elements to include into Status and Trends (e.g., cormorants) and the Steering Committee has suggested that the tributary work (Mallard Island and Guadalupe) be included in Status and Trends.

The TRC discussed a table that was handed out which assigned tentative priorities and suggested recommendations for modifications. Several committee members recommended that the water chemistry component of Status and Trends be given a high priority and that a winter element be added back into the Status and Trends program. Andy Gunther asked why the winter sampling had been stopped. In response, several individuals indicated that this had been a cost-savings measure and in the case of the bivalves there was a greater variability observed in the winter months. Several Committee members recommended that power analyses be conducted to determine what the trade-offs between reducing sampling frequency and determining trends. Dave Tucker stated that we need to stay focused on the questions that we need to answer, and not stray too far from the origin of the Program as a NPDES permit provision. We should develop a list of information needs and think outside of the box for ways to get work funded to meet these needs (e.g., Regional Board penalty funds).

Committee members agreed that one cost-saving measure could be to collect only total concentrations for PCBs, PAHs, legacy pesticides, and PBDEs, rather than dissolved and total.

A meeting to discuss components of a winter sampling element will be held on October 12th. Several members suggested that the prioritization table be revised after the meeting to include any new winter sampling components for 2006.

Action item: Conduct power analyses. Recommend process for evaluating program. Include new program elements

6. Discussion: Program Plan for 2006

Meg Sedlak presented the five-year plan and discussed program elements for 2006. New elements for 2006 include the triennial fish sampling, the Mallard Island special study (first flush event), and the Guadalupe special study. Approximately $100,000 will be allocated for a sediment coring study. In addition, approximately $200,000 of EEPS funding will be allocated to continuation of the shiner surfperch study ($50,000), a benthic study ($40,000), a small fish study ($40,000) and a possible egg injection study ($50,000).

The TRC approved the plan with the caveat that the winter sampling and episodic toxicity components would be delineated at some future meeting.

Action item: Provide an explanation of activities planned for the winter sampling and episodic toxicity monitoring for 2006

7. Discussion: South Bay Salt Pond Restoration Proposal

Jay Davis presented the rationale for the RMP to participate in the South Bay Salt Pond Restoration Project (SBSP), which is conducting a $740,000 research and monitoring effort in the South Bay to determine the impact of wetland restoration on the bioavailability of mercury. The SBSP is requesting $25,000 from the RMP to assist in funding this effort. The funding for this project would be taken out of the $50,000 contingency fund.

Karen Taberski commented that this was an inexpensive way for the RMP to be involved in this program and to review and comment on work that was being conducted in the South Bay. Jim McGrath stated that involving an independent group in this monitoring will lend it credibility, and addressing this new type of issue may make the RMP even more of a national model. Karen Taberski recommended that we make sure that this monitoring is coordinated and linked with the RMP small fish monitoring effort.

The TRC approved funding this proposal.

Action item: Jay Davis to check with Steve Ritchie to make sure that this will give the TRC a say in reviewing this work.

8 Decision: Changes to USGS Suspended Sediment Stations

Meg Sedlak stated that due to recent funding cuts, the USGS will only be able to maintain six of the current ten sites it has used for measuring suspended sediment. The USGS, RMP, and US Army Corps met in July to discuss and prioritize sites. The Corps and USGS has approved maintaining the following four fixed sites: Mallard, Benicia, Point San Pablo, and Dumbarton Bridge. Two temporary

stations will be used by the Corps and the RMP. In the first year, a temporary station will be placed at the Hamilton Army Airfield to monitor impacts of the US Army Corps aquatic discharge station. The Corps will contribute an additional $113,000 for the purchase of new equipment for this site. It was proposed that RMP will allocate its funding for the second temporary site to the development of sediment flux calculations at the Dumbarton Bridge.

The TRC approved the change in suspended sediment sampling sites to four permanent sites and one temporary site at Hamilton and sediment flux calculations at the Dumbarton Bridge.

9. Information: Program Update and Laboratory Data Status

Meg Sedlak stated that the Contaminant Fate and EEPS workgroups had met in the last quarter. A handout highlighting major milestones was included in the agenda package.

The CFWG met on September 15th to discuss revisions to the multi-box model, the draft coring plan, and the five-year plan. The multi-box model has been reviewed by Tetra Tech. The advisory panel recommended that additional calibration to field results be conducted prior to Tetra Tech conducting a sensitivity analysis. The Workgroup strongly recommended the collection of sediment cores irrespective of the status of the model. Originally it had been proposed that the model and coring event be linked. The next meeting will be held in the Spring 2006.

The Exposure and Effects Workgroup had a conference call on August 25th to approve the budget for 2005. One of the elements approved for 2005 was a small fish study to be conducted for approximately $50,000. This will be a three-year study to ascertain the impacts to small fish in the margins of the Bay. The next meeting will be held on November 22nd, 2005.

The Sources Pathways and Loading Workgroup did not meet this quarter but proceeded with revisions to the five-year plan and preparation of the Mallard Island Report. This Workgroup will meet in November.

Jay Davis recommended that the interim Mallard Island report be eliminated as a five-year report will be produced in early 2005. The TRC approved elimination of this task.

Meg Sedlak reported that due to difficulties extracting PAHs from the glass filters, AXYS will be moving to an ambient temperature sonication method. Don Yee and Meg reviewed spike and standard reference recoveries and considered that this method was comparable to the existing soxhlet method.

A brief update was given on the data status sheet and deliverables completed this quarter.

10. Action: Set Date for Next Meeting

Next meeting was set for Tuesday, December 13th. Meeting was adjourned at 2:45.

ACTION ITEMS

ACTION	WHO	STATUS
Look into whether recent data on PCB congeners can be provided electronically	David Dwinelle	
Bruce Wolfe of the Regional Board, Steve Ritchie and Mike Connor convene a meeting to discuss funding of SBSP.	Mike Connor	Mike Connor in the process of planning meeting.
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 next quarter
Convene workgroup to look at emerging contaminants	Meg Sedlak	To be organized next quarter
Conduct power analyses of S&T program elements, prepare new table with priorities and potential recommendations	Meg Sedlak/Jay Davis	
Provide an explanation of the episodic toxicity work and winter sampling slated for 2006	Sarah Lowe	