



RMP Technical Review Committee Meeting

March 15, 2005

San Francisco Estuary Institute
Second Floor Conference Room
7770 Pardee Lane, Oakland
10:00am-3:00pm

Lunch will be provided. We will take a short break and then keep working through lunch.

DRAFT AGENDA

1.	Introductions and Approval of Agenda and Minutes (Attachment)	10:00 Chair
2.	Information: Steering Committee Report (Attachment)	10:10 Meg Sedlak
3.	Information: Setting Priorities for the 2006 Program Plan A. Overview of Process B. Budget Overview (Handout) C. Prioritization of Ideas for Pilot and Special Studies for 2005 Following the annual cycle of Program Planning, it is time to review pilot and special study ideas for possible inclusion in the 2005 Program. Desired Outcome: Review ideas in hand, solicit additional study ideas, and agree on process for ranking them.	10:20 Jay Davis Meg Sedlak
4.	Information: Pulse Update A draft copy of the Pulse was sent to TRC members for comment. Feedback on the Pulse from TRC members will be discussed.	10:50 Jay Davis
5.	Action: Annual Meeting (Handout) The agenda for the Annual Meeting is almost finalized. Staff recommends shifting the date for the 2006 Annual Meeting and Pulse release to September or October to facilitate reporting RMP results in a more timely manner. Recommended Action: Provide input on and approval of the Agenda. Approve shifting the 2006 Annual Meeting and Pulse to the fall.	11:10 Jay Davis
6.	Information/Action: Update on Multi-box Model An update on the Multibox PCB model will be provided, including more detailed discussion of the Data Integration workplan. The workplan includes a budget for modeling another contaminant. Selection of the	11:30 Jay Davis John Oram

	second contaminant will be discussed. Desired Outcome: Select another contaminant or determine process for selecting the contaminant.	
	BREAK	12:00
7.	Lunchtime Presentation: Update on Research Activities in Russ Flegal's Laboratory at UC-Santa Cruz Topics will include: 1) Metal/phytoplankton interactions during algal blooms in South San Francisco Bay 2) Concentrations, speciation, and biogeochemical cycles of mercury in San Francisco Bay 3) Mercury speciation and complexation in freshwater inputs to South San Francisco Bay	12:15 Allison Luengen Kit Conaway Frank Black
8.	Information: Dissolved vs. Total Selenium Concentrations in Water Dissolved concentrations frequently exceed total selenium concentrations.	1:00 Don Yee
9.	Information: Update on Mallard Island and Guadalupe Studies Lester McKee and his sampling team have been busy collecting runoff samples this winter. An update on sample collection will be provided.	1:15 Lester McKee
10.	Information: Dredged Material Data Evaluation Special Study A status report on this study will be provided.	1:30 Don Yee
11.	Information: Update on Toxicity Studies A status report on RMP (S&T and EEPS) and PRISM toxicity studies will be provided.	2:00 Sarah Lowe
12.	Action: Responding to Review Panel Recommendations (Handout) The TRC requested that staff prepare memos summarizing how RMP is addressing some of the issues raised by the Review Panel. These will be presented and discussed. Desired Outcome: TRC approval that we have responded appropriately to Review Panel recommendations.	2:10 Jay Davis
13.	Action: RMP Management Question Revision Desired Outcome: Obtain TRC approval on final version of revised objectives.	2:25 Rainer Hoenicke
14.	Action: New Analytes (Handout) At the December TRC meeting, the decision was made to drop all of the new analytes except for PBDEs. An updated table of new analytes will be presented. Desired Outcome: TRC approval to drop all but PBDEs for 2004 and 2005.	2:30 Meg Sedlak
14.	Information: Workgroup Updates The Contaminant Fate Work Group will meet in April after review of the multi-box model. The next meeting of the Sources Pathway and Loadings Work Group will be March/April. EEPS Meeting is scheduled for April 4 th .	2:35 Don Yee Lester McKee Jay Davis
15.	Information: Program Update and Laboratory Data Status	2:40

	(Handouts) An updated deliverables scorecard and updated laboratory data tracking sheet will be presented.	Meg Sedlak
16.	Action: Set Agenda and Date for Next Meeting	2:55 Chair
	Adjourn	3:00

**RMP Technical Review Committee Meeting
December 21, 2004
San Francisco Estuary Institute
Meeting Minutes**

In attendance: Karen Taberski (Regional Board), Chris Sommers (EOA-BASMAA), Dave Tucker (City and County of San Jose), Bridgette Deshields (BBL/WSPA), David Dwinell (USACE), Diane Griffin (EBMUD), Kathleen Dadey (USEPA), Andy Gunther (AMS), Ray Arnold (Copper Development Association), Margaret Chang (US Army Corps of Engineers), Jessie Denver (City of San Jose), Eric Dunavey (City of San Jose), Jay Davis (SFEI), Sarah Lowe (SFEI), Don Yee (SFEI), Rainer Hoenicke (SFEI), Lester McKee (SFEI), Meg Sedlak (SFEI), Aroon Melwani (SFEI), Amy Franz (SFEI), and Jennifer Hunt (SFEI)

Participating by telephone: Trish Mulvey

1. Introductions and Approval of Agenda and Minutes

Dave Tucker opened the meeting by asking for comments on the September 2004 minutes. Jay Davis noted that several of the action items for the September meeting had not been addressed. These action items are included with the action items from today's meeting. A table summarizing the action items follows today's meeting minutes. In absence of any comments, Karen Taberski and Bridgette Deshields motioned for the minutes to be approved and the minutes were approved by the Committee.

Action item: Include action items from the September 2004 meeting into the action items developed from the December 2004 meeting.

2. Information: Steering Committee Report

Jay Davis provided a summary of the Steering Committee meeting on October 18, 2004. One of the major points was that the Steering Committee approved the 2005 budget. Dr. Davis noted that BASMAA had proposed that the Steering Committee approve the budget on a line-item basis with the budget potentially increasing, decreasing, or remaining the same. Most of the Steering Committee members indicated that they preferred to approve budget in its entirety rather than to delve into the budget on a line-by-line basis. Dr. Davis told the TRC that if a line-by-line budget approval process is adopted that it will require a longer planning horizon (e.g., the 2008 budget would need to be approved by October 2006). Mr. Tucker asked whether there was any discussion of looking at a multi-year budget and requested that this be brought up at the next Steering Committee meeting. Jay Davis also reminded the Committee that Mike Connor will develop a memorandum on the process to obtain budget approval.

Action item: Dr. Davis will discuss the option of approving the budget on a multi-year basis with the Steering Committee. Dr. Connor will develop a memorandum on the process to obtain budget approval.

3. Information: Revision of the RMP Objective and Management Questions

Rainer Hoenicke briefly summarized the new RMP Objective and Management questions and indicated that they would be considered for adoption at the next Steering Committee meeting. Karen Taberski stated that the new language under Objective 5 (Compare monitoring information to relevant *standards*) was unnecessarily restrictive as there may be circumstances in which there are no standards (i.e., only guidelines may exist). Dr. Hoenicke stated that it was not the committee's intent to be more restrictive and that he would revise this language.

Dr. Hoenicke stated that revised Objectives will serve as guidance for the Program for the next five years and as such, they will be issued as an RMP report. Dr. Hoenicke suggested that the revised Objectives be brought up at the next TRC meeting for approval.

Action item: Rainer Hoenicke will revise Objective 5 to indicate that monitoring information will be compared to all relevant standards and guidelines and circulate the new objectives to committee members with a deadline for comments.

4. Information: Update on 2004 Pulse Outline

Dr. Davis noted that a minor revision to the Pulse outline had been made because the PCB multi-box model will not be completed and reviewed in time to make the Pulse. Dr. Davis stated that there were sufficient articles remaining in the Pulse so it would not be necessary to identify a replacement article. Trish Mulvey expressed concern that the multi-box model would not be available for public review. Jay Davis stated that a Conceptual Model/Impairment Assessment report that includes a discussion of the model would be developed in late Spring/early Summer for review by the CEP. Andy Gunther indicated that the CEP would develop a media strategy for the release of the Basin Plan Amendment and the PCB CMIA. Dave Tucker suggested that Trish Mulvey contact Michelle Pla regarding her concerns on public outreach and review.

Dr. Davis requested that the Committee assist in the identification of important findings from 2004 on water quality in San Francisco Bay (not conducted by the RMP) that could be presented in the Status and Trends section of the Pulse (i.e., graphical highlights of non-RMP work).

5. Discussion: 2005 RMP Annual Meeting Agenda

Jay Davis stated that this year's Annual Meeting will be at the Oakland Museum and the theme for this year's meeting is "Answering the Important Questions." . The 2005 Annual Meeting agenda was discussed.

The Committee commented that the agenda looked ambitious and several commented that the agenda as written looked very controversial. For example, Dave Tucker noted that it is not necessarily true that a TMDL will be developed for copper and nickel. It is possible that these elements will be managed through an attainment strategy, rather than a TMDL. Similarly, Andy Gunther noted that it was not necessarily a given that the Bay would be impaired by PBDEs and that a TMDL would be needed.

Several of the Committee members suggested that the same topics as proposed could be included if the foci of the talks and the titles were changed slightly. One of the Committee members noted that one of the objectives was to synthesize data to help water quality managers. Dave Tucker suggested that the talks could be framed around the theme of science in support of regulatory issues (i.e., tying the results of the RMP to management issues). Diane Griffin suggested that the talk on PBDEs could be renamed to "A discussion of emerging contaminants - technical and regulatory perspectives." Andy Gunther suggested that each presentation could begin with the new management objectives and then delve into the science in support of the management issues. Andy Gunther thought the talk on Estimation of Contaminant Loads to the Bay (Lester McKee) was exemplary as understanding storm water loads and accurately being able to characterize them directly impacts the management and regulation of contaminants.

Several Committee members thought the talk and corresponding article in the Pulse on the Napa River TMDL should be dropped as it does not directly address issues about the Bay. Trish Mulvey suggested writing an article on sediment as a surrogate for source loads, with the focus being contaminant loads around Bay and coastal areas.

Karen Taberski suggested developing talks from the journal articles (prepared as part of the Ten Year Synthesis). Jay Davis indicated that the journal articles would not be prepared in time to be included in the Pulse but that they could be used to develop talks for the Annual Meeting.

Dave Tucker noted that the 2006 National Water Quality Monitoring Council Meeting will be held in San Jose, California. The focus of the meeting will be on developing a national strategy for monitoring. Mr. Tucker stated that this was an excellent forum for the RMP to participate in.

Action item: Jay Davis to revise 2005 Annual Meeting Agenda to reflect Committee members' comments.

6. 2004 Highlights and 2005 Workplan

Meg Sedlak presented a brief overview of the 2005 Detailed Workplan and the goals for the day (obtaining feedback on the Detailed Workplan). Ms. Sedlak indicated that the draft Workplan would be revised in January to reflect the new objectives and any comments that the TRC had.

Action item: Meg Sedlak to revise the draft Detailed Workplan to reflect TRC comments and to incorporate new objectives and management questions. A revised Workplan will be distributed at the next TRC meeting.

6a. Program Management

Meg Sedlak outlined the program management activities to be undertaken in 2005. The focus for 2005 is to better track deliverables (e.g., reports) and to improve the laboratory turn-around time. Ms. Sedlak indicated that deliverables would continue to be tracked through the Scorecard. Ms. Sedlak distributed an example of a laboratory data tracking sheet, which indicated that much of the 2002 and 2003 data would be reported in December and January, and asked the Committee if periodic reports on the progress of data analyses would be helpful to the group. Committee members stated that they found the laboratory data tracking sheet useful.

A discussion ensued regarding the importance of receiving data in a timely manner without compromising data quality. Dave Tucker stated that the public, which funds the Program, cares about cost, timeliness, and quality, and that we need all three. Kathleen Dadey also agreed that public perception of timeliness is important.

Dr. Davis stated that a goal for the Program would be to obtain and report the laboratory results within one year. Dr. Davis noted that the current schedule of the Annual Meeting (approximately nine months after sample collection) precluded the presentation of the previous year's sampling event. Dr. Davis suggested that if the Annual Meeting was convened in the Fall rather than Spring then it would be possible to have the results reported in one year, rather than 18 months as currently is the case. Kathleen Dadey suggested that the Steering Committee address this recommendation.

Meg Sedlak also queried Committee members as to whether it would be useful for the laboratories to meet with the TRC to discuss timeliness of data and issues surrounding laboratory turnaround times. Committee members were somewhat mixed about the utility of this endeavor and suggested that a laboratory summit meeting be convened independently of the TRC meetings with a subset of members.

Trish Mulvey and Dave Tucker requested that the Committee be kept informed of issues that could result in substantial delays of the reporting of laboratory results.

Action items: Ms. Sedlak to provide regular updates of laboratory turnaround times through the laboratory data tracking sheets. The Steering Committee should address the recommendation that the annual meeting be convened in the Fall rather than the Spring. Ms. Sedlak to investigate the possibility of convening a laboratory summit meeting.

6b. Data Management

Sarah Lowe presented an overview of the highlights of data management for 2004:

- Transfer of RMP data into the SWAMP format to facilitate use of data among agencies; and
- Development of the data web query tool.

The goals for data management for 2005 include the following:

- Continue to upload RMP data in SWAMP format;
- Continue to maintain web-based query tool;
- Develop a method for labs to submit data via the web;
- Develop tools for increasing the efficiency of QA/QC review; and
- Upload historic data bases into the SWAMP format.

6c. Information Management

Jay Davis gave a brief overview of information management for 2005. Jen Hunt will oversee the production of the two newsletters and Estuary insert. Other activities included under this task are: preparation of posters and graphics for presentations, press outreach, and logistics coordination and development of graphics for the annual meeting.

6d. Data Integration

Jay Davis presented several of the accomplishments under the 2004 data integration task including:

- Development of the multi-box PCB report;
- Preparation of a manuscript on the PAH budget;
- Preparation of a manuscript on sediment quality triad; and
- Preparation of a manuscript on PBDEs.

Dr. Davis briefly summarized the 2005 data integration task that consists primarily of a multi-year scope of work jointly funded by RMP and CEP for fate modeling and field studies.

Major activities to be conducted in 2005 include:

- Documentation of USGS sediment transport model;
- Review and test PCB multi-box model;
- Conduct sediment sampling; and

- Apply multi-box model to other pollutants.

He envisions that the multi-box model would be expanded to address one or two other pollutants, subject to the approval of the TRC. Total mercury is proposed as the first pollutant.

Andy Gunther wondered whether there were economies of scale in the modeling effort if pollutants with similar physical/chemical properties were selected. Dr. Davis estimated that each pollutant case study would cost approximately \$40,000. Mr. Gunther also wondered if it would be possible to archive sediment samples collected in 2005 to be analyzed later for pollutants that the TRC approved (e.g., mercury). Dr. Davis noted that this might be a reason to have the TRC approve the pollutants to be model prior to the collection of sediment samples.

Deliverables for 2005 under the data integration task include:

- Journal manuscript on organochlorines;
- Final report on the PCB multi-box model;
- Manuscript submitted on the multi-box model;
- Technical report on PCB multi-box model 2.0;
- Pulse article on the Estuary Contamination Index; and
- Report on San Francisco Bay wetland benthos.

Bridgette Deshields asked whether there would be TRC review of the multi-box report; Dr. Davis indicated that the draft report would be distributed for review in the next few weeks and the final report on the PCB multi-box model would be available for review in March.

Jay Davis queried the Committee as to whether it was useful to present a multi-year scope of work. The Committee indicated that it was; however, Mr. Tucker indicated that he would have preferred more detail in the detailed workplan.

There was discussion on the Estuary Contamination Index and how this related to other indices such as the Bay Institute Report card. Mr. Gunther requested clarification on the relationship of the Estuary Contamination Index to the work that SFEI is currently conducting for the San Francisco Estuary Project (SFEP). Mr. Gunther also wondered whether the development of an Estuary Contamination Index included the collection of data or whether it would compile indicators from existing sources. Rainer Hoenicke indicated that it would be a mixture of both and would identify data gaps.

With regard to indicators, Rainer Hoenicke stated that SFEP was hosting an Environmental Indicators Workshop on January 26, 2005 at Oakland City Hall to develop, monitor, and interpret data on indicators and to coordinate indicator monitoring efforts. Karen Taberski stated that the State Board must develop a report card and wondered if there was any overlap or participation in this endeavor by agency personnel. Rainer Hoenicke indicated that John Hall of

USEPA is actively participating in this workshop. Dr. Hoenicke stated that he will send a list of participants in the workshop to the TRC.

Action item: Rainer Hoenicke to provide the TRC with a list of participants in the Environmental Indicators Workshop. Bruce Thompson will clarify the relationship of the Estuary Contamination Index to the work that SFEI is currently conducting for the San Francisco Estuary Project.

6e. QA/QC

Don Yee summarized the highlights of 2004 which included:

- Field QA involving XAD sampler and whole water – Based on the PCB data, XAD sample results are twice the whole water grab samples. This may be because XAD samples are integrated across a longer period of time.
- Split egg samples for PBDE – good reproducibility for PBDEs, less so for PCBs;
- Method Development – difficulties with phthalates;
- New Analyses – Methyl mercury analyses are now being conducted by UCSC. Based on a conference that UCSC recently attended, it may be necessary to modify field SOP for methyl mercury to reduce loss as a result of compositing of sediment samples.

For 2005, it is envisioned that QA/QC task will include the following:

- Develop data quality objectives for new contaminants;
- Revise the QAPP to conform with the SWAMP template;
- Conduct laboratory audits; and
- Continue calibration and validation of sampling and analysis.

Ray Arnold asked why the dissolved selenium reported on the RMP web site was higher than the total selenium.

Action item: Don Yee to provide an explanation as to why dissolved selenium concentrations frequently exceed total selenium concentrations.

Lunchtime Presentation – Multi-box PCB Model Version 1.0 –Sneak Preview

John Oram gave a lunchtime presentation on the PCB multi-box model that Jon Leatherbarrow had developed and Jon Oram had recently optimized. The model incorporates the Uncles and Peterson salinity model with the UC-Davis sediment transport model developed by Lionberger and Schoellhammer. A PCB transport component was then added by SFEI. The multi-box model segments the Bay into 50 boxes with two vertical layers. Physical aspects such as tides, inflow, outflow, wind and rain force flow between the boxes. In addition, mixing between layers is based on a model by Fuller et. al. (1999) that indicates most of the mixing occurs in the top 30 cm. By using the model to hindcast PCB concentrations in

the Bay from 1940 to 2000, Oram and Leatherbarrow found surprisingly good correlation between the model and the available historical data. Andy Gunther commented that this was remarkable given that the model had not been calibrated. Forecasting by the model indicates that natural attenuation is a critical factor for achieving recovery of the Bay. A discussion of the assumptions regarding natural attenuation ensued.

Jay Davis indicated that the draft report would be released shortly. The list of reviewers will include the expert scientists that participate in the Fate workgroup (Drs. Joel Baker and Tom McCone) and an outside review coordinated by Applied Marine Sciences.

6f. Status and Trends and Winter Pilot Study

Sarah Lowe presented the highlights of the 2004 Status and Trends sampling and a synopsis of the 2005 Status and Trends program. Ms. Lowe indicated that the 2005 sampling program would be very similar to the 2004 sampling plan with the possible exception that the “new analytes” proposed in 2002 would be revised. Ms. Lowe provided a handout summarizing the “new analytes”, cost to analyze, and recommendations for 2004 and 2005. Ms. Lowe indicated that based on an internal staff meeting in September regarding the “new analytes,” she had notified that the laboratories to drop all of the “new analytes” for 2004 with the exception of PBDEs and polycyclic musks in bivalves.

Mr. Tucker concurred with this recommendation for 2004 and recommended dropping all of the “new analytes” in 2005 except for PBDEs. Ms. Lowe encouraged Mr. Tucker to consider retaining polycyclic musks in bivalves to ensure consistency (e.g., several years of sampling data); however, the Committee felt that, if needed, additional samples could be collected in the future and it would not impair the research if the data were not collected consecutively. Ms. Lowe indicated that the musk data would be important for Dr. Epel at Stanford University who is studying effect thresholds of polycyclic musks in bivalves.

Bridgette Deshields recommended that a study of PFOS and pharmaceuticals be developed as a special study. Andy Gunther also suggested looking at alkanes because this data could be very relevant in the event of an oil spill. There was some discussion as to whether the alkylated PAHs could be a surrogate for the alkanes. It was agreed that Daniel Oros should look at the alkylated PAH data and determine whether it could be used as a surrogate for alkanes.

Ms. Lowe recommended that the octylphenols and alkylphenol polyethoxylates be included in the 2005 water sampling program. Nonylphenols were monitored as a “new analyte” in water, sediment, and tissue but were either not detected or detected at concentrations significantly below the NTR aquatic life value. The Committee suggested reviewing octylphenols and alkylphenol polyethoxylates in March when a justification for this sampling could be provided.

Sarah Lowe then provided a brief summary of the Episodic Toxicity work. The purpose of the study is to investigate sediment toxicity to freshwater and estuarine test species in six estuary tributaries from storm events. Two sampling events, the first rains in November 2004 and after the first application of pesticides in April 2005, will be undertaken. Sediment will be analyzed for metals, organics (i.e., PAHs, PCBs, pesticides, PBDEs and pyrethroids), and sediment toxicity. One of the Committee members asked whether this work was duplicative of the work conducted by the SWAMP program. Karen Taberski indicated that, unlike the RMP research project, the SWAMP program is not storm-event driven.

Ms. Lowe indicated that approximately \$142,000 had been set aside for Episodic Toxicity research for 2005. Dave Tucker asked how this money would be spent. Ms. Lowe indicated that approximately \$100,000 would be spent on the April sampling of six tributaries. Mr. Tucker asked whether PBDEs would be analyzed as part of this research project. Ms. Lowe said yes.

Ms. Lowe also briefly discussed the wet weather sampling that would occur in February at three sites. The purpose of this work is to identify seasonal variability. Mr. Tucker then recommended that RMP develop a five-year plan for toxicity testing and linking the plan to changes in pesticide usage. He stated that it might not be necessary to analyze for all chemicals. Ms. Lowe indicated that the research was a baseline. Mr. Tucker agreed that it might be a baseline but that SFEI needs to start looking out over a five-year planning horizon. Sarah Lowe stated that during the next year SFEI needed to further develop the design of wet season sampling in the RMP. Mr. Tucker and Ms. Taberski asked that they be included in the work group that will consider the wet season sampling program.

Ms. Lowe also informed the group that she would be leading a new data management group at SFEI.

Action Item: Meg Sedlak will look at the potential for analyzing alkanes and whether the alkylated PAHs could serve as a surrogate for alkanes. Sarah Lowe to provide justification for sampling for octylphenols and alkylphenol polyethoxylates at the next TRC meeting. A work group will be convened to determine how to redesign the status and trends sampling program to capture the impacts of seasonal effects.

6g. Status and Trends: Fish

Jen Hunt gave a brief summary of the status of the Sport Fish element. Results from the laboratory are expected in early 2005 and report summarizing these results will be written in the Spring.

6h. Special Study: Mercury Deposition Network (MDN)

Don Yee gave a brief presentation on the results of the national Mercury Deposition Network. The San Jose site is one of two sites in California involved

in the program. The second site is located in Sequoia National Park. Dr. Yee presented a slide contrasting the mercury concentrations at each site.

The committee agreed to continue funding this project for 2005 at a cost of \$18,000 to the RMP. The City of San Jose will continue to provide in-kind contributions on the order of \$50,000 for the collection of samples. It was felt that these data are useful because it is one of the few urban measuring sites in the west and the only site in California. Don Yee noted that Calfed had requested that the RMP continue this project. Karen Taberski noted that in a recent study by the Board on reservoirs that all lakes had mercury regardless of distances from potential sources suggesting that atmospheric deposition of mercury is important. One of the Committee members asked whether any speciation data is available (it is not). Don Yee agreed to determine the cost for conducting the additional analyses for mercury speciation.

Action item: Develop contracts for RMP's continued participation in MDN.

6i. Special Study: Dredged Material and the Food Web

Dr. Yee presented a summary of the special study to investigate the effect of dredging on bioaccumulation. This \$20,000 research project will involve a literature review followed by the development of a conceptual model.

6j. Exposure and Effects Pilot Study and Exposure Effects Work Group

Dr. Davis presented a summary of activities that occurred in 2004 including:

- An advisory meeting in February;
- A conceptual model report completed; and
- Collection of cormorant eggs.

Ms. Lowe also indicated that the RMP had funded a study of seal fur mercury. The study will compare Bay seals to open ocean seals and determine the best matrix for sampling seals. A Committee member asked when the study results would become available. Ms. Lowe also indicated that the RMP had assisted scientists in developing a proposal to the National Science Foundation regarding the decreasing population of seals in the Bay.

Activities proposed in 2005 for EEPS include the following:

- A study of mercury, selenium, and organochlorines in diving ducks;
- A study of mercury in clapper rails;
- A proposal to fund research on the impact of contaminants on fish (to be posted in January);
- Sediment toxicity study (comparison of laboratory and resident species); and
- Report on benthic community evaluation.

Kathleen Dadey asked for clarification on the sediment toxicity study. Ms. Lowe explained that the purpose of this \$60,000 study is to evaluate mechanisms of

toxicity to two different types of amphipods (one is free burrowing; the other is a tube builder). The effect of three different chemicals, copper, chlorpyrifos, and the PAH fluoranthene will be investigated. Two different studies will be conducted one with sediment/water and the second with only water. Ms. Dadey questioned the relevance of conducting a water only experiment with a contaminant such as PAH which is hydrophobic. Ms. Lowe responded that the purpose of the experiment was to determine the mechanism of exposure and, therefore, it was important to conduct the water-only experiment.

Action item: Sarah Lowe to find out when results of seal study will be available and to provide copies to the TRC.

6k. Special Study: Ten Year Synthesis

Dr. Davis stated that the Ten Year Synthesis articles would be published in a special issue of the journal *Environmental Research*. Dr. Russ Flegal of University of California—Santa Cruz is coordinating this effort.

6l. Special Study: PBDE Information Gaps

Jay Davis presented Daniel Oros's special study investigation PBDE information gaps that is being jointly funded by the RMP and the CEP. The RMP will fund the analysis of samples for this project. Ms. Lowe reminded the group that this work would tie into the Episodic Toxicity project that is examining PBDEs in tributaries. Chris Sommers, Karen Taberski, and several other Committee members requested the location of sampling sites for this study. Mr. Tucker indicated that Daniel was welcome to sample the City of San Jose's wastewater treatment plant.

Action item: Daniel Oros to provide TRC with sampling site locations.

6m. Special Study River Loadings, Guadalupe River Study, and Reconnaissance Study to identify loading sites

Dr. McKee provided of the three special studies that he is directing. The river loading study (\$51,000) is a continuation of previous years' Mallard Island work to determine sediment loads from the San Joaquin and Sacramento rivers. This project is jointly funded by the US Army Corps of Engineers (\$100,000), the RMP, and the Santa Clara Valley Water District (\$23,000). The purpose of the Guadalupe river study (\$50,000) is to accurately quantify mercury and PCB loads from a known contaminated tributary. The third special study (\$7,500) is to identify potential sampling locations in representative watersheds. Karen Taberski noted that the Regional Board has conducted considerable work in this area. Ms. Taberski recommended that Lester contact her regarding this work.

With regard to the Guadalupe and Mallard Island studies, Dr. McKee explained that storm water would be analyzed for PCBs, OC pesticides, PBDEs, PAHs, Hg, TMs, organic carbon and SSC. At existing sampling locations, after satisfactory data are gathered that characterizes OC pesticides and PAHs (one to two years of

data), OC pesticides and PAHs would be dropped. The rationale for this change in sampling regime is the increasing concentration of PBDE in the Bay and food change and the expectation that a ban on OC pesticides will greatly diminish their presence in storm water. Dr. McKee stated that although the cost to analyze for PBDEs is higher than the OC pesticides, the budgets for these projects would remain unchanged and fewer samples would be analyzed to cover the increase in analytical costs. Ms. Taberski thought that the proposed sampling change was a good idea. Motions were made and the change was approved by the TRC.

Dr. McKee and the Committee discussed how the PBDE tributary work would be incorporated into Dr. Oros's work on PBDEs.

Action item: Lester McKee to contact Ms. Taberski regarding reconnaissance work that the Regional Board has conducted on potential sampling sites.

6n. Work Groups

Jay Davis indicated that the Fate work group would reconvene after reviewing the multi-box model, most likely in February. The next meeting of the Sources Pathways and Loading Work Group will be March/April and the objective would be to approve the five-year work plan. The Exposure and Effects work group will also meet in 2005; a date for this meeting has not been proposed.

The meeting was adjourned at 3:15 pm.

ACTION ITEMS

ACTION	WHO	STATUS
Put the alkylated PAH data on the web.	Jennifer Hunt	Don Yee to QA/QC data and post to web
Incorporate comments received on the Dredged Material Testing study	Don Yee	Don Yee to release draft for comments in January.
Look into whether recent data on PCB congeners can be provided electronically	David Dwinell	
Talk with Dave Tucker about a joint TRC/TC meeting	Jay Davis	
Discuss with Steering Committee approval of the budget on a multi-year basis	Jay Davis	
Develop a memorandum on process to obtain budget approval	Mike Connor	
Revise Objective 5 to indicate data will be compared to all relevant guidelines and standards. Circulate revised objectives to TRC members.	Rainer Hoenicke	
Revise 2005 Annual Meeting Agenda to reflect TRC's comments	Jay Davis	
Revise Detailed Workplan to incorporate new objectives and TRC comments	Meg Sedlak	
Provide laboratory data tracking sheets at TRC and investigate possibility of convening laboratory summit	Meg Sedlak	
Discuss with Steering Committee the possibility of convening the annual meeting in the Fall, rather than the Spring	Jay Davis	
Provide TRC with list of participants for the Environmental Indicators Workshop	Rainer Hoenicke	
Clarify relationship of Estuary Contamination Index with the existing SFEI/SFEP	Bruce Thompson	

work		
Investigate why dissolved selenium concentrations frequently exceed total selenium	Don Yee	
Investigate the suitability of analyzing alkanes/alkylated PAHs	Meg Sedlak	
Provide rationale for analyzing octylphenols and alkylphenol polyethoxylates in water	Sarah Lowe	
Convene Status and Trends Redesign work group to address seasonality of sampling	Sarah Lowe	
Initiate contracts to continue MDN work	Meg Sedlak	Started.
Provide results of seal study to TRC	Sarah Lowe	
Provide TRC with a map showing PBDE sampling locations	Daniel Oros	
Contact the Regional Board to obtain previous studies on potential sampling sites	Lester McKee	

**REGIONAL MONITORING PROGRAM FOR TRACE SUBSTANCES
STEERING COMMITTEE MEETING MINUTES
January 24, 2005**

Members Present:

Dave Allan, USSPOSCO Industries
Kevin Buchan, Western States Petroleum Association
David Dwinell, US Army Corps of Engineers
G. Robert Hale, Alameda County Clean Water Program
Ellen Johnck, Bay Planning Coalition
Jim McGrath, Port of Oakland
Adam Olivieri, BASMAA
Dan Tafolla, Vallejo Sanitation and Flood Control
Chuck Weir, East Bay Dischargers Authority
Dyan Whyte, SFB RWQCB

Others Present:

Jay Davis, SFEI
Mike Connor, SFEI
Sarah Lowe, SFEI
Meg Sedlak, SFEI

1. Introductions and Approval of Agenda and Minutes

After introductions, Kevin Buchan opened the meeting and asked for comments on the October 18, 2004 minutes (Item 1 Attachment 1). Jay Davis stated that all action items had been addressed. No other comments were made and the minutes were approved.

2. Information: Committee Member Updates

Jay Davis informed the group about the upcoming RMP San Francisco Wetland Mercury Research Coordination that will be held from 10:00 am to approximately 3:00 pm on February 23rd at the San Leandro Marina Inn. Additional information regarding this meeting will be distributed via the forthcoming February San Francisco Bay Mercury News electronic newsletter. Meg Sedlak requested that individuals interested in this meeting or newsletter contact her.

3. Information: Technical Review Committee (TRC) Meeting Summary

Jay Davis summarized the minutes from the most recent TRC meeting on December 21, 2004 (Item 1 Attachment 3) in which the elements of the detailed workplan were discussed and approved. Part of the discussion focused on laboratory performance and receipt of data in a timely manner. A suggestion was made to move the Annual Meeting from the Spring to the Fall to facilitate the reporting of data within a one-year time frame.

The current timing of the meeting results in data being reported 18 months or two years from the time of sample collection. The chair of the TRC, Dave Tucker, concurred that moving the Annual Meeting to facilitate the receipt of data within a one-year time frame would be laudable.

Action items:

- **Confirm that the TRC/SC approve moving the Annual Meeting for 2006 from the Spring to the Fall**

4. Information: Budget Status

Meg Sedlak presented an updated summary for the RMP Budget (Years 2003 – 2004) (Item 4 Attachment 1). In general, the 2004 budget came in on budget. There was approximately \$32,000 in labor which will be carried over into 2005 to complete unfinished 2004 tasks. The subcontract budget was also on target due to cancellation of contracts (e.g. diving duck samples were compromised as a result of a refrigerator malfunction) and reduction of analytes (e.g., all of the “new analytes” with the exception of PBDEs were dropped). Ms. Sedlak handout a budget status summary sheet.

5. Action: 2005 Program Plan and Budget for 2005

Ms. Sedlak presented the 2005 Budget and Program Plan. Meg Sedlak noted that there was a 1.5 percent increase over last year’s budget. Additional revenue streams for 2005 included bad debt from Caltrans (approximately \$60,541) that was written off in December of 2003 and paid in December of 2004. The budget for 2005 was generally balanced with a slight surplus.

Ms. Sedlak described several of the individual program elements including the pilot and special studies that were planned for the year. Ms. Sedlak commented that many of the studies were collaborative efforts with the CEP or jointly-funded by other organizations. Jim McGrath encouraged close collaboration between the RMP and CEP.

Dr. Connor announced that additional funding for the data integration task (i.e., the multi-box model) had been obtained from the CEP. The CEP has allocated approximately \$400,000 for sediment sampling and PCB, mercury and legacy pesticide analyses. Dr. Connor noted that several RMP projects this year are jointly-funded. He commented that the RMP funds are frequently used to leverage additional money from other sources to enhance the scope of work.

The Committee indicated that it would like to see the 2005 budget and the Five-Year Plan annotated with which program elements had received additional funding. Mr. Weir requested that the numbering for the program plan correspond to the 2005 Budget handout.

Chuck Weir and Adam Olivieri made a motion to approve the 2005 Program Plan and the 2005 Budget. These items were approved by the Committee.

Action item:

- **Annotate the 2005 Budget and Five-Year Plan with a comment about which projects have received additional funding sources. Revise the program plan to reflect the same numbering scheme as the 2005 Budget handout.**

6. Discussion: Process for Determining the Budget and Program for 2007 and Beyond

Dr. Connor briefly summarized a memorandum that he had prepared on the process for approving the annual budget. Dr. Connor stated that the program budget could be divided into four parts: Status & Trends (S&T); USGS studies on sediment dynamics and hydrography and phytoplankton; Special and Pilot Studies; and Program Management. Each part of the program could be evaluated independently with the idea being that not all parts of the program would need to be evaluated annually. Dr. Connor proposed waiting one more year to evaluate S&T as a major redesign occurred in 2002 and insufficient data is present to effectively assess the success of this redesign. Dr. Connor suggested that if the Committee was satisfied with this part of the program that the budget for it should grow at the rate of the Consumer Price Index (CPI). Dr. Connor stated that the second program element, the USGS work, is funded by the US Army Corps of Engineers. This funding source has remained stable and fixed for the last several years. No increase was suggested for this work. The third program element, Special and Pilot Studies, is closely tied to issues that directly affect the Committee. For the next several years, a large portion of this budget will be associated with the multi-box model that is jointly-funded by the CEP. Dr. Connor commented on how in general the Pilot and Special Studies are subject to an extensive review process as part of the selection process. Program management, the fourth program element, includes data management, program management, reporting, and information dissemination. Assuming that the Committee is satisfied with this part of the program, Dr. Connor suggested that this program part also increase annually by the CPI.

The Committee discussed briefly the overlap between the CEP and RMP and how to achieve good communication and coordination between the two groups. Dr. Connor noted that both Jay Davis and he attended CEP meetings and that several Committee members serve on both programs (e.g., Dave Tucker serves as chair of the TRC for the RMP and chair of the TC for CEP). A suggestion was made for more formal joint meetings to be made between the CEP and RMP.

A discussion ensued about the South Bay Salt Pond project. Jim McGrath stated that the Salt Pond project presented a good opportunity for the RMP to increase its biological monitoring (e.g., effects of restoration on fauna) and to increase its understanding of sediment dynamics. Dyan Whyte commented that the permit for Salt Pond project had been approved and no regional monitoring had been required. Mr. McGrath pointed out that additional monitoring requirements could be proposed by the Board if it deemed it necessary. Jim McGrath stated that SFEI is well poised to conduct this type of monitoring work.

Chuck Weir stated that he feels the POTWs have a responsibility to see that surface water and sediment quality improve. He indicated that his group is interested in participating in the CEP and RMP to see that the appropriate questions are answered. Adam Olivieri indicated that the BASMAA managers also agree with this philosophy.

Adam Olivieri stated that the SWAMP, CEP and RMP sometimes had disparate goals and suggested that the Board come up with a Bay Area plan for regional monitoring. He also noted that the BASMAA budgets are fixed year to year and that the group is facing increasing financial pressure as individual program elements (e.g., fees) increase without a corresponding increase in revenue.

Jim McGrath commented that the RMP had done a good job of adapting to fiscal constraints and that the Board needed to think about ways to increase the number of participants in the RMP. Adam Olivieri asked whether the Budget Review Memorandum needed to be approved today and Kevin Buchan indicated that it did not. Jay Davis reminded the Committee that due to the budget planning process timeline, the Committee needed to come to some consensus on the budget process soon.

Action item: Mike Connor will to discuss the budget process at the next SC meeting and to prioritize individual elements for discussion at the next SC meeting.

7. Action: Responding to Review Panel Recommendations

Jay Davis distributed four handouts on the Review Panel Recommendations and the actions that the Committees would like to implement. To address the first two items on the handout, it was decided that the RMP staff would write a memorandum describing the RMP planning and decision-making process. The memorandum would include a procedure to resolve conflict when consensus-based decisions cannot be reached. Recommendation number 5, Increase Public Outreach, will be addressed by Chuck Weir who leads the CEP's public outreach. The committee decided that recommendation number 9, include a representative of the environmental community on the Steering Committee, should be addressed by notifying Dan Cloak of Dan Cloak Environmental Consulting and Leo O'Brien of Waterkeepers of the Steering Committee meetings.

Action item: SFEI to prepare a memorandum address Review Panel Recommendations 1 and 2. Linda Russo to notify Dan Cloak and Leo O'Brien of future Steering Committee meetings.

8. Discussion: Joint Meeting of the RMP SC and the CEP EMB

The Program Review Panel and the TRC have recommended that the SC consider a joint meeting with the EMB. A discussion ensued regarding the form of these meetings and who would participate. Dr. Connor offered to hold a meeting with Andy Gunther of the CEP to write a memorandum on how the RMP and CEP work together to address issues

and to discuss the priorities for each program. Ellen Johanck requested that the DMMO be included as well.

Action item: Dr. Connor and Dr. Gunther to write a memorandum on program elements, collaborative efforts, and priorities for each program. Dr. Connor and Dr. Gunther to include the DMMO in their discussions.

9. Action: Annual Meeting Agenda

Dr. Davis presented the agenda for the Annual Meeting, which is scheduled for May 10th, and asked for feedback on the proposed topics. Dr. Davis indicated that the theme for this year would be “Answering the Important Questions.” He stated that many of the presentations tied into articles that would appear in this year’s Pulse.

Dyan Whyte suggested that a brief presentation be given at the Annual Meeting regarding the RMP, CEP and the LTMS and how they overlap. Several members recommended removing the copper/nickel talk as it did not seem relevant to current issues in the Bay. Adam Olivieri indicated that he would speak with BASMAA members to see if a presentation could be made on reducing stormwater loads.

Action item: Adam Olivieri to determine if a presentation can be made on reducing stormwater loads. SFEI, CEP, and LTMS to prepare a brief outline of their respective program elements for the Annual Meeting.

10. Information: Pulse Update

Dr. Davis presented the Pulse schedule and indicated that he had contacted all authors and the Pulse appeared to be on schedule. He also stated that Ariel Rubisson-Okamoto had been contacted to prepare a one-page summary of the Pulse and asked whether committee members had other suggestions. Jim McGrath indicated that he thought she did good work and that we should go with her. Jay Davis stated that the Pulse would contain trends data. Adam Olivieri suggested contacting City of Palo Alto as they have conducted some interesting work on trends.

Action item: Meg Sedlak to contact Ariel Rubison-Okamoto to confirm her availability to write one-page summary. Meg Sedlak to look at City of Palo Alto’s work on trends.

11. Information: Updating the RMP Objectives and Management Questions

Jay Davis indicated that Rainer Hoenicke would provide a timeline for comments.

Action item: Rainer Hoenicke will provide a timeline for comments to Steering Committee members.

12. Information: Report on Winter Pilot Study

Dr. Davis indicated that due to a full agenda only the Winter Pilot Study would be discussed at the meeting. The EEPS program will be discussed at the next Steering Committee meeting. Sarah Lowe provided a handout on the Winter Pilot Study and briefly summarized this work. Ms. Lowe indicated that 2001 was the last time samples were collected in the winter season. The wet weather sampling is important for determining 303 (d) listings and preparing NPDES permits.

Ms. Lowe reminded the Committee that several issues with regard to sampling need to be addressed: seasonality of the data (e.g., impacts of wet weather on the data), aquatic toxicity (e.g., determination of sediment toxicity), and redesign of the sampling plan (i.e., the current plan is based on copper which is no longer an issue). It is anticipated that these issues will be addressed through work groups in 2005.

Action item: Jay Davis to provide a summary of EEPS work at next Steering Committee meeting.

13. Information: Program Update

Meg Sedlak provided copies of the Scorecard to members. Adam Olivieri asked that the handouts be sent to him electronically.

Action item: Meg Sedlak to send Adam Olivieri a copy of all handouts electronically and to post handouts, agendas, and meeting schedules on SFEI web site.

14. Schedule for Next Meeting and Adjourn

The meeting adjourned at 3:40 pm. The next meeting is scheduled for April 18th at 12:30 pm.