



RMP Steering Committee Meeting

October 26th, 2009

San Francisco Estuary Institute
First Floor Conference Room
7770 Pardee Lane, Oakland, CA
10:00 AM - 12:30 PM

AGENDA

1.	Approval of Agenda and Minutes (Attachment)	10:00 Chair
2.	Information: Committee Member Updates	10:05 Group
3.	Information: Technical Review Committee Meeting Summary (Attachment) Topics of discussion at the September TRC meeting included: pilot and special studies for 2010; the RMP master plan and Annual Meeting/Pulse	10:10 Meg Sedlak
4.	Information: Financial audit and RMP funds (Handouts) A financial audit of the institute including the RMP was conducted in July 2009. The results of the audit and reconciliation of the reserve to the audit will be discussed.	10:20 Lawrence Leung
5.	Information: Budget Status (Handouts) An update on the status of contracts and labor expenditures will be given.	10:40 Lawrence Leung
6.	Action: 2010 Pilot and Special Studies (Attachment) A table summarizing the pilot and special study ideas that were recommended by the TRC for inclusion into the 2010 program will be presented. Recommended Action: Approve studies for incorporation into 2010 plan.	10:55 Meg Sedlak and Jay Davis

7.	Action: Approval of 2010 Draft Program Plan (Attachment) The draft program plan has been prepared. Desired Outcome: Approval of the 2010 Program Plan	11:25 Meg Sedlak
8.	Action: Annual Meeting and Pulse (Attachment) We are looking for feedback on this year's Annual Meeting and selection of a theme for next year's Pulse and Annual Meeting. Desired Outcome: Approve topic for next year's Pulse and Annual Meeting.	11:35 Jay Davis
9.	Information: Program Update (Attachment/Handout) An update on deliverables will be presented including: RMP Annual Mercury Meeting Scorecard Workgroup updates	12:25 Meg Sedlak
10.	Adjourn	12:30

**REGIONAL MONITORING PROGRAM FOR WATER QUALITY
STEERING COMMITTEE MEETING
DRAFT MINUTES
August 13th, 2009**

Members Present:

Dave Allen, USS POSCO (Industry)
Kevin Buchan, WPSA (Refineries)
Adam Olivieri, EOA (BASMAA)
Tom Mumley, SFB RWQCB
Dave Tucker, City of San Jose (BACWA)

Others Present:

Jay Davis, SFEI
Lawrence Leung, SFEI
Meg Sedlak, SFEI

1. Approval of Agenda and Minutes

The SC members warmly welcomed Kevin Buchan back; Adam Olivieri ceded his responsibilities as chair to Kevin. Kevin Buchan opened the meeting and asked for comments on the May 2009 minutes. Dave Tucker motioned that the minutes be approved; Adam Olivieri seconded and the minutes were approved unanimously.

Ms. Sedlak informed the committee that approximately \$39,000 from the contingency funds had been used to write contracts for use of two vessels for the 2009 Status and Trends cruise. Use of 2009 contingency funds had been approved at the May meeting. Ms. Sedlak also stated that she needed to know whether the SC would approve the replenishment of the 2009 contingency from the reserve as this would effect the funding available for 2010 pilot studies. (The contingency fund typically rolls over into the next year if it is unspent and serves as a source of revenue for the next year.) The SC approved the replenishment of the reserve. Dave Tucker made a motion for \$50,000 to be taken from the reserve to replenish the contingency fund. Adam Olivieri seconded and the motion passed unanimously.

Ms. Sedlak also gave a brief overview of the current status of the financial health of the Institute. Small surpluses were recognized in June and July (\$10 and \$3,600 respectively); prior months had resulted in a deficit of approximately \$70,000 since the start of the year. Based on the June and July financial indicators, the Executive Director decided to implement the employee raises that were deferred at the beginning of the year and to conduct the financial audit of the Institute that was also deferred. The Institute continues to suspend employee 403 (b) contributions.

2. Committee Member Updates

There were no member updates.

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

Ms. Sedlak summarized the July meeting, noting that several of the July TRC items were included on today's agenda (e.g., Pulse, agenda for Annual Meeting, and RMP planning update).

Ms. Sedlak indicated that the TRC had requested a more substantive review of the data integration tasks (e.g., the multi-box model). In response, funding for data integration was moved from project management to the pilot and special study pool. The projects that typically would have been conducted under the data integration task are now being reviewed by the workgroups and submitted as pilot and special study projects.

Ms. Sedlak summarized some of the key findings from the recently completed Coast vs. Estuary report comparing RMP fish caught in the Bay to SFPUC fish caught in the ocean. The report had several interesting findings. Significant spatial differences were not observed. A significant difference was observed in the PCB concentrations, with Bay fish having much higher concentrations.

Ms. Sedlak also indicated that Lester McKee was beginning a project that will identify appropriate numeric endpoints for nutrients (e.g., algal blooms, hypoxia, ammonia toxicity). This is part of a larger state-wide program developing indicators for estuaries that SCCWRP is overseeing. The SC recommended that Lester McKee keep the TRC informed of the progress of this project and provided with the opportunity to review products.

Action item: Ask Lester McKee to keep the TRC informed of the progress of the nutrient endpoint project.

4. Information: Budget Status

Ms. Sedlak presented the budget memorandum and budget. She indicated that approximately 95 percent of the 2009 revenue has been received. Outstanding participant fees include Caltrans stormwater fees and Paradise Cay. She indicated that the budget was largely on track for the year.

Ms. Sedlak indicated that based on discussion with SFEI accounting staff, there will likely be a decline in anticipated interest revenue. In January, the estimated interest for the 2009 budget was \$65,000. Based on discussions with SFEI accounting staff and interest payments to date, this will more likely be \$50,000. Adam Olivieri noted that a number of the banks charge additional fees for municipal/ government funds and indicated that he could provide the name of several financial brokers that do not.

Ms. Sedlak indicated that in 2009, the RMP had a decrease in revenue due to the late notice that one of the NPDES dischargers was no longer discharging directly to the Bay. Ms. Sedlak indicated that the fees for 2010 had been reallocated among the remaining industry participants. She indicated that this was consistent with prior practices (e.g., when Crockett Cogen was added as an RMP participant, the individual fees for this sector were reduced).

Ms. Sedlak indicated that she is continuing to work with the RWQCB to obtain the Caltrans RMP fees for 2005 through 2007. At present, approximately \$175,717 is outstanding. Ms.

Sedlak indicated that the MOU between Caltrans and the RWQCB had been signed and she was currently working with the State RWQCB on a contract to begin obtaining the 2005-2007 fees. The State RWQCB indicated that funds for this contract could be made available as soon as September 1 and it is anticipated that they will be dispensed over the next year.

With regard to the 2008 and 2009 Caltrans fees, Ms. Sedlak indicated that she was still continuing to work with Caltrans. These fees will be included in a five-year contract with the Aquatic Science Center. Ms. Sedlak indicated that based on discussions with Caltrans, it appears that the funds will be made available in the next three to five months. Tom Mumley offered to contact Jim Richard at Caltrans to see if they could be made available more quickly.

Action item: Meg Sedlak to provide Tom Mumley with an update on the status of the RMP Caltrans fees so Dr. Mumley can contact Jim Richard to ask whether these funds can be made available sooner. Meg Sedlak to contact Adam Olivieri to obtain the names of financial institutions which may provide a better interest rate and lower fees.

6. Information: Development of RMP Master Plan

Jay Davis gave a status update on the development of the RMP Master Plan indicating that he preferred a shorter document but that this would be a challenge to synthesize the strategies and work plans into a short 10 to 15 page document. Jay walked the committee members through an outline indicating that he needed input from the SC on Section 3 - Stakeholder Priorities. He requested that each group (RWQCB, BASMAA, BACWA, Dredgers, and Industry) review (or submit) their respective tables to make sure that the sector tables accurately captured information needs.

Dave Tucker asked who the audience was for the Master Plan as this will guide the format/content of the plan. Jay Davis indicated that the major audience was RMP participants. The document will guide longer term planning and provide a context for pilot and special studies. Jay also indicated that it could be a useful tool for communicating the RMP priorities and goals to a larger audience such as non-governmental agencies and the SFEI Board. It could also be useful tool for obtaining input on the program. Dave recommended that Jay not to write a lengthy document that would be of limited use.

Tom Mumley emphasized the importance of the Master Plan in providing a context for planning purposes. Tom stated that there was no nexus for all the strategies and workgroup plans and the Master Plan would provide the crosswalk among the workgroups and strategy teams and outline priorities. Adam Olivieri thought the document would be useful for several reasons: it would explain the structure and goals of the program and could quell some of the concerns that stakeholders have as to how the funds are being spent and the types of useful information that the RMP provides to stakeholders. Both Dave Tucker and Adam Olivieri emphasized that the document needs to be concise to be useful. Adam Olivieri suggested it include some of the information dissemination tools that the RMP is employing (e.g., web sites, publications, meetings, etc.).

Dave Tucker recommended that the Master Plan be used to prioritize studies (e.g., Can a study idea be delayed? Do we need this type of information now? Why?) and to outline a longer

planning horizon as to what needs to be done this year, next year, etc. He encouraged the RMP staff to consider multi-year planning and develop a PERT chart.

The SC recommended that the document be completed in time for the next budget cycle (late 2009) so it could be used in the solicitation and selection of studies.

Kevin Buchan asked Jay to elaborate on what he meant by “anticipated management decision?” Tom Mumley explained that this addresses the outcome of the collection of data (i.e., what decision will be affected if I have this information?).

Action item: Each group (RWQCB, BASMAA, BACWA, Dredgers, and Industry) review (or submit) their respective tables to make sure that the table captures information needs.

7. Information: Program Review

Jay Davis mentioned that during the course of discussion of the Master Plan at the last TRC meeting, a question had arisen about the next Program Review. The last Program Review occurred in 2003; Jay indicated that for a number of reasons, the TRC did not feel any urgent need to have a review in the near future but that we should begin thinking about when we would like to conduct the review and what we hope to accomplish through the review. Jay Davis recommended that the review be conducted after the Master Plan was complete and after Meg Sedlak returned from her leave of absence (September 2010).

Tom Mumley did not see any compelling need for an external review. Dave Tucker asked what we were trying to accomplish through the review? Adam Olivieri indicated that the type of review would be governed by the questions we are trying to answer. Are they related to management of the program? Financial aspects (how are public funds be expended)? Technical? In the case of the latter two questions, we may be addressing these issues through the annual financial audit and through the review of the program elements by the workgroups.

Dave Tucker indicated that another question could be how well does the RMP integrate with other monitoring programs? Are other programs doing a better job than the RMP? He suggested that we spend time over the next couple of SC meetings thinking about this issue. Dave requested that the TRC and SC be asked what they would like to see the Program Review address. Jay Davis indicated that based on the meeting, it seemed like there were at least three issues to be addressed: Are funds being effectively used? Is the RMP well connected with other monitoring programs? Are there lessons we can learn from other monitoring programs? The Committee suggested that the Master Plan should lay out the timing and questions for the Review.

Action item: Send an e-mail to the TRC and SC to ask them what they would like to see the Program Review address.

8. Action: Pilot and Special Studies for 2010

Tom Mumley began the discussion with a comment that it wasn't clear which groups could vote and it appeared that several sectors had more than one vote. He also indicated that the averaging of the votes did not seem a very appropriate method for conveying the consensus of the TRC. In

addition, the rationale behind several of the votes was ambiguous and at times conflicting. He gave three examples: the mercury air deposition project; development of an egg threshold for PBDEs; and the emerging contaminant project to screen for anthropogenic compounds.

Tom Mumley also requested the rankings of the workgroups; Ms. Sedlak indicated that only the studies that were highly ranked were brought forward to the TRC.

Jay Davis indicated that in the past, several vested stakeholders had been allowed to vote and participate in the process. The voting results were regarded as information for the SC to consider in their decisions on funding.

Dave Tucker requested that the TRC come to consensus on the studies and rank the studies in order of priority. He indicated that the recommendation needs to indicate a priority as to why the study needs to be completed next year. He also indicated that the pilot and special study pool might not need to be expended entirely. It might make sense to retain a portion of the pool if there wasn't a strong rationale for expending the funds in 2010.

Action item: Have the TRC review the studies and reach consensus on which studies need to be funded for 2010 and why.

9. Information: Pulse and Annual Meeting

Jay Davis gave a short update on the status of the Pulse and Annual Meeting. Jay Davis indicated that all of the Pulse articles have been written and that a complete draft version of the Pulse would be available the week of the 24th for review.

Jay then handed out the latest version of the Annual Meeting agenda. Jay proposed having two sediment experts to kick off the meeting (Schoellhamer and Jaffe), followed by a panel discussion. The panel would address the question of whether the RMP was doing enough to address the anticipated changes in sediment dynamics and implications for the estuary. Jay Davis indicated that Jim McGrath was assisting in the development of the panel questions and discussion topics.

Jay Davis indicated that the proposed agenda was flexible and that a number of other speakers could potentially be tapped. He suggested that sediment modeling talks by John Oram and Mark Stacey (UC-Berkeley) discussing the RMP modeling strategy and the South Bay work, respectively. The Committee liked this idea and encouraged Jay to contact Mark Stacey. A request was made that Don Yee's coring talk discuss future predictions based on the cores.

The Committee also liked the water quality summary that Jay Davis had presented at prior Annual Meeting. Jay indicated that he was updating this table to reflect new findings for a presentation to the AAAS Pacific Division meetings being held on Monday August 17th. Dave Tucker indicated that it was important to summarize the overall condition of the Bay – what's getting better, what's not, and what we can and cannot do about the Bay.

The SC recommended that the SQO presentation be deferred as the SQO indirect effects are still in the process of being developed. Several recommendations were made for an MC for the meeting including Rainer Hoenicke, Mike Connor, Chuck Weir, and Dyan Whyte.

A number of SC members indicated that they would not be attending the meeting due to annual retreats. Jay Davis asked whether the timing of the meeting should be changed but the group seemed to think that the Fall was an appropriate time.

10. Information: Program Update

Meg Sedlak gave a short update on the program including the tracking of collaborative projects that were recommended at the joint CTAG / TRC meeting.

The meeting was adjourned at 12:50. Next Steering Committee meeting will be October 26th at 10:30.

Action Item	Who?	Status
Have the TRC review the studies and reach consensus on which studies need to be funded for 2010 and why	TRC	Bring to the September meeting.
Send an e-mail to the TRC and SC to ask them what they would like to see the Program Review address.	Meg Sedlak	Discuss at September meeting
Each sector review their respective information needs tables for the Master Plan	SC representatives	
Provide Tom Mumley with an update on the status of the RMP Caltrans fees so Dr. Mumley can contact Jim Richard to ask whether these funds can be made available sooner. Contact Adam Olivieri to obtain the names of financial institutions which may provide a better interest rate and lower fees.	Meg Sedlak	E-mail sent to Tom and Adam.
Lester McKee to keep the TRC informed of the progress of the nutrient endpoint project.	Meg Sedlak	

Clarify the roles and responsibilities of the RMP and RMP staff with regards to San Leandro Bay CAF proposal	Jay Davis	
Develop a list of short term and longer term projects to be funded through SEP using the existing RMP strategies. TRC to review and comment on list.	Meg Sedlak and Jay Davis	
Discussion 2010 fees on the October SC meeting agenda and information needs	Meg Sedlak	

**RMP Technical Review Committee Meeting
September 22, 2009
San Francisco Estuary Institute
Draft Meeting Minutes**

Attendees:

Mike Connor (EBDA)	Rod Miller (SFPUC)
Bridgette DeShields (Arcadis/WSPA)	Trish Mulvey (SFEI Board of Directors)
Eric Dunlavey (City of San Jose)	Rachel Allen (SFEI)
Naomi Feger (SFRWQCB)	Jay Davis (SFEI)
Tom Hall (South Bay Dischargers (EOA))	Susan Klosterhaus (SFEI)
Francois Rodigari (EBMUD/BACWA)	John Oram (SFEI)
Chris Sommers (Stormwater Agencies (EOA))	Meg Sedlak (SFEI)
Karen Taberski (SFRWQCB)	Don Yee (SFEI)

1. Introductions and Approval of Agenda and Minutes

Meg Sedlak made introductions, and asked for comments on the TRC minutes. No comments were made, and Chris Sommers made a motion to approve the minutes and Karen Taberski seconded and the motion passed unanimously.

2. Information: Steering Committee Minutes

Meg Sedlak summarized the Steering Committee (SC) meeting in August 2009, mentioning that the budget was generally on track. There is a minor shortfall of about \$15,000 due to declining interest rates; she also indicated that she is continuing to work with Caltrans to obtain delinquent fees (*after the meeting, Dylan Whyte of RWQCB indicated that the contract for the 2005 to 2007 fees had been signed*).

3. Ranking of 2010 Pilot and Special Study Ideas

Ms. Sedlak indicated that the SC reviewed the votes from the TRC and had a difficult time interpreting the results as there was too much disparity in the voting. The SC directed the TRC to discuss the pilot and special studies (PS/SS) and develop consensus as to which studies to fund in 2010, which to defer to 2011, and which to reject outright. She proposed accepting some of the less contentious studies directly, and focusing the hour allotted on the more debatable items.

Chris Sommers asked why the SC had sent the PS/SS discussion back to the TRC. Naomi Feger indicated that the SC wanted recommendations based on consensus of studies to fund, not a simple ranking. Jay Davis also mentioned that the TRC does not have to spend all of the money in the PS/SS budget. There was a brief discussion of who officially votes, but Naomi Feger suggested that all just come to agreement without an official vote.

Chris Sommers proposed discussing the studies first by agreeing on the ones which ranked the highest, then the ones that ranked the lowest, and then discussing the ones where there was no clear consensus. Karen Taberski also mentioned that some studies could be postponed, funded in part, or spread over two years.

Chris Sommers then introduced the studies based on their results from the voting after the previous TRC meeting.

- Study 14: Monitoring of Small Fish for PCBs
 - Everyone agreed to fund this study without discussion
- Study 7: SQO development for San Francisco Bay
 - Everyone agreed to fund this study without discussion
- Study 11: POC Loads Monitoring in Representative Watersheds – Reconnaissance
 - Chris Sommers mentioned that from his point of view, this study is a must, because it determines where sampling can be done.
 - Meg Sedlak indicated that it is actually an add-on study, which determines if the sites are in fact accessible.
 - Francois Rodigari mentioned that the budget amount for this study was small.
 - Everyone agreed to fund this study.
- Study 10: Develop and update spreadsheet model
 - Chris Sommers suggested that this be put off to 2011
 - Mike Connor expressed some concern that this was an individual sectors permit condition and whether this was an appropriate use of RMP funds. Chris Sommers indicated that storm water loading is a regional issue and that a lot of effort had been expended to see that the RMP and the MRP were well-coordinated. He also indicated that of the eight sites specifically listed in the permit, the RMP at present was only monitoring two (Hayward and Guadalupe).
 - Jay Davis mentioned that the spreadsheet model is a high priority for the small tributaries loading strategy and SPLWG.
 - Trish Mulvey proposed that it be funded for study, unless the budget was unattainable for this year.
 - The study was included in those to be funded for 2010.
- Study 13: Conceptual model for bioaccumulation
 - Everyone agreed to fund this study without discussion.
- Study 9: POC Loads Monitoring – Scoping Needs for “Land Use” specific monitoring
 - Chris Sommers indicated that there was high variability in the voting on this study. The goal of this study is to identify specific land use and emission data for contaminants from representative watersheds. Southern California has developed emission rates for eight land use categories. Due to the differences in the watersheds and contaminants, this classification is not directly transferable to the Bay Area. Chris Sommers indicated that

this work was a piece of the strategy upon which modeling and field work would be based.

- Everyone agreed to fund this study.
- Study 12: Proposal to develop highly resolved 3D model of the South Bay
 - Chris Sommers noted that it is the most expensive study. Karen Taberski asked if the budget could be reduced while still accomplishing the goals.
 - Mike Connor mentioned that the USGS was using the Delft 3D model and wondered how many different models of the bay were needed.
 - John Oram indicated that the Delft model was a commercial model meaning that any changes to the model would be an additional fee. He also indicated that USGS had hired a full-time modeler just to work on the model and modifications. The SUNTANS has the advantage that it is open source (free), community driven, and flexible in its application. John mentioned that the budget could be reduced but it would slow the progress of the work.
 - Mike Connor asked how this model could help make management decisions upon completion of the modeling exercise (approximately four years). Jay Davis and John Oram described the capacity of the model to determine where the contaminants are, where they go, and how they move, enabling the policy makers to know what influence contaminated areas will have on a region. Bridgette DeShields suggested that the model could also predict what effect clean up actions will have, and help prioritize management actions and additional studies.
 - Eric Dunlavey was concerned that models consistently do not provide enough results, and that they become outdated quickly, taking money that could be spent on collecting data. He wanted to know what reduction in uncertainty of our forecasts would be obtained with this effort. John Oram mentioned that previous models, such as the multibox model, have taught us a lot, and that this model will provide more detailed information, particularly in the Bay margins.
 - Chris Sommers asked how the model could be calibrated, and how predictions could be validated. John Oram said that this model is calibrated with physical parameters, such as salinity, temperature, and density. The USGS and the RMP have a plethora of data on these parameters.
 - Chris Sommers mentioned that he was disappointed with the multibox model, and that as the 3D bay model is developed, there should be regular updates in order to maintain confidence in the project. Jay Davis noted that a request had previously been made by the CFWG that a detailed workplan be laid out, describing tasks, what we will get for the investment (including anticipated reduction in uncertainty), the limitations of the model, an evaluation of data needs, a description of validation, the effort's relationship and dependence on other projects, and check in points along the way in this multi-year project.

- John Oram mentioned the sediment model being developed by a post-doc working with Dr. Mark Stacey of UC-Berkeley, and that this model is needed to move forward.
- Naomi Feger stated that this study was a high priority to the waterboard and pointed out that there was time for John Oram to write the workplan document before the funding is officially approved, which might address some of the concerns being raised.
- Chris Sommers supported this idea, and asked that the potential future data needs that are not included in the budget allotted be outlined in the document.
- Trish Mulvey suggested that the document be complete by the end of November, compatible with John Oram's workload, and that the funding for the project be contingent upon the document. The review process could then occur at the December TRC meeting.
- The study was approved for funding contingent upon the development of a workplan document.
- Study 4: Impact of dissolved copper and olfactory system of juvenile salmon
 - It was generally agreed that this study could be delayed until the next funding cycle. Some TRC members feel the study needs rescoping and that there should be further discussion among the stakeholders, NOAA and the Regional Board. This information need is a high priority as it is a permit requirement for dischargers and this study should be given priority in 2011.
 - Meg Sedlak recommended that a meeting be convened to discuss the project and that the study be brought back to EEWG, TRC and SC.
- Study 15: PCB Conceptual Model 1.5
 - It was agreed that this project be postponed until 2011. Karen Taberski and Naomi Feger asked if SFEI could research what is already available in terms of literature reviews on PCB degradation.
- Dioxin strategy study: Surface water monitoring of loads from Guadalupe and Delta
 - Meg Sedlak mentioned that this work was a piggyback effort off of the triennial Guadalupe and Mallard island work that was occurring in 2010.
 - Everyone agreed to fund this study.
- Study 16: Screening of biological matrices for anthropogenic pollutants
 - Eric Dunlavey mentioned that study 16 will use state of the art methods to prioritize emerging contaminants (EC), which the RMP should focus on. Meg Sedlak added that it was cost effective to do a non-targeted analysis, and that this study would generate a large scan of data.
- Study 3: Estimation of PBDE thresholds in common terns
 - Mike Connor asked if the PBDE tern study could be postponed, to wait for the development of a national threshold for bird eggs. He also indicated that since PBDEs have already been banned, the PBDE study is not needed. Naomi Feger indicated that the water board feels that this study is important because it will make progress towards determining if beneficial uses are impaired due to PBDEs. We have little in the way of good effects

threshold data available. For example, we see high levels of PBDEs in tern eggs and have limited effects studies. Karen Taberski pointed out that the available effects data are for other species, e.g., chickens and mallards. Chris Sommers expressed concern with the RMP funding an east coast study with east coast species. Naomi Feger indicated that her understanding is that the RMP, through Meg Sedlak, initiated this study and that using the common tern is a better surrogate for tern species in the Bay than chickens and mallards. Jay Davis mentioned that the tern eggs in the Bay area have much larger concentrations of PBDEs than others seen around the world. Meg Sedlak added that only Barnett Rattner at the USGS Patuxent facility was studying effects on PBDEs on bird eggs. It was proposed that this study be recommended to fund but that a quick review of the development of standards for BDE in sport fish and effects thresholds for birds be conducted.

- SPLWG Study: Monitoring and Modeling Contributions of Atmospheric Deposition to Watershed Mercury Loads
 - Karen Taberski indicated that the WB had concerns with the Atmospheric Deposition study, in that it is not called for in the TMDLs, one watershed atmospheric load may not be representative, and it makes more sense to characterize the background watershed load before collecting data on air deposition.
 - Chris Sommers suggested that atmospheric deposition is a larger issue than just mercury, and Mike Connor proposed to postpone the project to 2011 and develop a larger atmospheric deposition strategy. Bridgette DeShields added that atmospheric deposition is difficult and expensive to study, and that it would be better to address multiple contaminants at once. It was agreed that a new project with a small amount of funding, < \$12,000, be included in the recommendations put forward to the Steering Committee to develop an atmospheric deposition strategy.
 - Trish Mulvey suggested that studies 3 and 16 be funded for 2010.

Karen Taberski made a motion to accept the list of studies to fund and refer the recommendations to the SC, and Chris Sommers seconded it.

Action items:

- Develop a workplan for the modeling strategy that includes future data needs for the models, check ins, and collaborations.
- Hold a teleconference call to discuss revising the dissolved copper in the olfactory system of salmon study in consultation with NOAA and stakeholders, bring back to the TRC for consideration for studies for 2011.
- Research literature reviews on PCB degradation.
- Develop an atmospheric deposition strategy for atmospheric pollutants such as Hg, PCBs, and dioxin. Bring action item to the CFWG meeting in February.
- Determine if there are national PBDE standards/effects thresholds for bird eggs and sportfish.

4. Information: Program Review

The program review discussion was moved earlier in the meeting to accommodate members that had to leave early.

Ms. Sedlak reported that the SC did not see an urgent need for the Program Review. The Program already receives external technical review on an on-going basis from the advisory panels that are part of the workgroups, and the Program's finances are reviewed annually as part of the annual financial audit of the Institute. Ms. Sedlak stated that the questions that we want answered will guide who we should have on the review panel. Meg Sedlak mentioned that the program has set aside money for the Program Review. The Review typically occurs on a five-year cycle and the most recent Review was 2003.

Chris Sommers suggested the following questions: 1) is the money well spent? 2) how can the RMP better coordinate with other monitoring programs? and 3) what coordination efforts exist already?

Trish Mulvey mentioned that she had recently read the Little Hoover report that was released in January, and that there were a number of state-wide science needs that the RMP should consider addressing (e.g., better connection of academic research with regulatory needs). She also indicated that the Chesapeake Bay monitoring group became too focused on select issues and did not have a sharp focus on management information needs, and therefore less relevant.

Jay Davis mentioned that in the RMP Status and Trends program, there is no peer review, however it is perhaps not necessary because the statistical design is solid. Chris Sommers indicated that he was not too concerned about a technical review of the S&T elements as he thought that the RMP was doing well in this area.

Chris Sommers indicated that a key need for him was ongoing syntheses of all the information that the RMP collects. He indicated that the program was quite diverse and that there were few forums for synthesizing and presenting the lessons learned.

Karen Taberski commented that it would be good if the RMP was more connected with the IEP and Delta monitoring work. Mike Connor noted that there was not much collaboration between the air and water agencies and this might be an area where the RMP could improve communication.

Mike Connor suggested asking how the RMP could better coordinate with other organizations, and that it would be worthwhile pulling together data from similar programs, such as the Great Lakes and the Chesapeake Bay.

Chris Sommers proposed including review of the status and trends program, and adding to the peer review questions about increasing the non-technical communications from the RMP. He suggested increasing fact sheets to distribute to stakeholders. He also suggested that the review might focus on what the best outreach communication strategy is.

5. Master Plan

Jay Davis reported that the SC asked for a succinct (approximately 10 page) master plan that should be an easy read for managers. This document will be a starting point for the needs of the TRC, with appendices detailing the more specific items. The next SC meeting is on October 26, 2009, and Dr. Davis will have a draft by that meeting, that he will also send to be reviewed by the TRC. He asked that the TRC revise and submit their final information needs statements to him, because they will be used as focus points for the RMP.

Action items:

- TRC members will revise and submit final information needs statements for the Master Plan.
- Jay Davis will develop a draft of the 10 page master plan asked for by the SC, for review by the TRC.

6. Information: Statistical discussion of the number of water sampling sites

Jay Davis mentioned that the number of stations may not have to be increased and that the discussion of sampling sites would be written up and a decision postponed to the next meeting.

Action item: Develop a memo discussing the number of sampling sites in the RMP.

7. Information: Pulse and Annual Meeting Update

Jay Davis noted that the 2009 Pulse has undergone its last edits, and would return from the printer in a week. The 2009 Pulse, like previous Pulses, required an intense work crunch in order to complete it on schedule. To alleviate this pressure, Jay Davis proposed deciding on the theme for the 2010 Pulse one meeting earlier, and asked for suggestions for the next Pulse. He also asked for suggestions for the voting question that occurs at lunch during the annual meeting. Meg Sedlak pointed out that Mike Connor had agreed to emcee the meeting.

Susan Klosterhaus gave a preview of the emerging contaminant presentation she will give at the annual meeting. She also asked for suggestions on how to shorten the presentation.

Her presentation was designed to update the public on the emerging contaminant work that has been done since her last talk, 2 years ago. Dr. Klosterhaus focused on three of the many emerging contaminants: perfluorinated compounds, triclosan, and flame retardants. Since most PBDEs have been banned in California, she looked at persistent chemicals that are used to replace PBDEs, such as TBPH and TBB which compose Firemaster 550, the fire retardant used in her couch. However, in comparison with PBDE levels, alternative fire retardants are found in much smaller concentrations. She concluded by outlining the ongoing projects about contaminants of emerging concern (CEC), such as the white paper, the CEC workshop on management in California, and the NOAA mussel watch program for CECs.

Mike Connor suggested that the last slide of her presentation was not useful, and asked if she could present alternative strategies, such as barrier technology, that might give a more uplifting conclusion.

Donald Yee gave a preview of his talk on San Francisco Bay cores. The core project was designed to create an inventory of pollutants in the bay. Sites were chosen around the bay, and in wetlands, with the expectation of seeing spatial and temporal pollutant distributions. Interestingly, Dr. Yee found mercury peaks in 1960, which he believed were not due entirely to mercury mining. Instead, they might come from urban sources such as coal and the change in energy technology. In the wetlands, sediment was exclusively depositional, making tracking PCBs, for example, much easier. Due to the sediment mixing in the bay, the feared “time bombs” of contaminants have likely already exploded, however as the pollutants spread and dilute, they will render ever increasing areas still slightly polluted.

The discussion returned to ideas for the next Pulse. Rod Miller suggested comparing the RMP and the San Francisco Bay with other monitoring programs at places like the Chesapeake Bay, the Great Lakes, the Delaware watershed, and the Puget Sound. Karen Taberski noted that lessons learned from the Great Lakes and the east on the management of nutrients might be relevant given that the Bay was becoming less light-limited. Mike Connor suggested that there was a fair amount of California state data and we could compare the SF Bay and information coming from SCCWRP, SWAMP and the Delta. He gave several examples including emerging chemical projects undertaken by SCCWRP (PBDE in seals), the sport fish monitoring by SWAMP, sediment quality objectives work, sediment toxicity work, nutrients and numeric endpoints, and ammonia.

Karen Taberski suggested emerging contaminants, with articles on the Green Chemistry Initiative and the literature review of contaminants of concern in wastewater, as a possible Pulse theme. Mike Connor added the SCCWRP collaboration and workshop, pharmaceutical take-backs, and the NOAA Mussel Watch project as additional ideas to contribute to an EC themed Pulse.

Jay Davis summarized the ideas so far: 1) emerging contaminants, 2) statewide comparison between Southern and Northern California programs, 3) national comparison, and 4) nutrient loads. At the SC meeting, a theme for the 2010 Pulse will be chosen.

For the lunchtime referendum, Jay Davis presented two ideas: 1) advice on the program review, including areas where the program can improve, such as communication, coordination, and effective use of funds and 2) prioritizing contaminants. Mike Connor suggested that the first idea would be more useful, and Karen Taberski noted that it could be helpful, although it has a negative spin. Rod Miller suggested asking if the RMP is as focused as it should be. At the meeting, it would be possible to show the amount of money being spent on different projects, and ask if this distribution is reasonable based on public priorities. Mike Connor proposed asking both for advice on the program review and if the RMP’s money is well focused. Francois Rodigari suggested that the

results from previous lunchtime votes, and ensuing actions, be summarized and presented to the voting public.

8. Information: 2009 Atmospheric Deposition Dioxin

Don Yee presented the five-year dioxin strategy, focusing on atmospheric deposition. The CARB has data from 6 sites in the Bay Area from 2002-2004, but their report is still in progress. The RMP plans to estimate the loads to the bay and the watersheds, but deposition modeling is needed.

Jay Davis asked about the timing for the project, and Dr. Yee noted that it can be completed about 6 months from receiving the data from the ARB. Mike Connor suggested that upon completion of the dioxin air deposition work, Don Yee might want to revisit the CEP mass loading study of dioxin. Mike Connor also wondered how much of an influence pentachlorophenol (PCP) treated telephone poles (that can contain dioxin as an impurity) might affect the load.

9. Information: Program Update and Laboratory Data Status

Meg Sedlak gave an update of the program. She indicated that the white paper summarizing the workshop that was conducted in April on developing strategies for the State to manage emerging contaminants would be out shortly. SCCWRP and the RMP are also involved in assisting NOAA in redesigning the NOAA mussel watch program; this meeting will occur in October.

She also gave updates on the progress of the workgroups.

- a. The CFWG is working on the bay margins model, and will meet in January or February of 2010.
- b. The SPLWG will have a meeting in November of 2009, and is working on ranking watersheds, a statistical analysis of sampling methods, and integrating the MRP with the RMP.
- c. USGS is continuing work on the effects of selenium and mercury on bird eggs. Ben Greenfield and other RMP staff have begun collecting small fish and setting out DGTs. NOAA is midway through the juvenile flat fish study.
- d. The ECWG is working on the white paper, and the sources of PFCs.
- e. The Benthic WG had a meeting in August 2009, and they are working with SCCWRP and on SQOs to develop a method for characterizing benthos in the moderately saline and freshwater areas.
- f. Status and trends on sport fish samples have been collected, and are being sent to the labs.

Meg Sedlak mentioned that a number of SFEI staff presented at the AAAS meeting and that a short summary of the meeting is on the SFEI web site. LTMS is holding two workshops; one on dredging issues and mercury and the other on green sturgeon and long fin smelt. This second workshop will be on December 2 and 3, 2009 and is open to the public.

Meg reminded the group that if they had not yet registered for the annual meeting on October 6, 2009 they should. The day after the meeting BACWA and SFEI will be holding a QA/QC meeting. Please contact Jennifer Hunt for more information.

Meg Sedlak presented the RMP Data Status Summary, giving the average number of days data was submitted after sample collected from each of the contract labs.

10. Set Agenda and Date for Next Meeting

The chair stated that the next planned meeting would be in December 2009, and it was suggested that it be held on December 9, 2009.

ACTION	WHO	STATUS
Develop a workplan for the modeling strategy that includes future data needs for the models, check ins, and collaborations.	John Oram	To be completed for the December TRC meeting
Hold a teleconference call to discuss revising the dissolved copper in the olfactory system of salmon study in consultation with NOAA and stakeholders, bring back to the TRC for consideration for studies for 2011.	Meg Sedlak	
Search literature reviews regarding PCB degradation.	Meg Sedlak/ Rachel Allen	
Develop an atmospheric deposition strategy for atmospheric pollutants such as Hg, PCBs, and dioxin. Bring to CFWG meeting in February.	Don Yee	
Determine if there are national PBDE standards/effects thresholds for bird eggs and sport fish	Meg Sedlak	
Develop a draft of the 10 page master plan asked for by the SC, for review by the TRC	Jay Davis	To be completed by Oct 26, the next SC meeting
Develop factsheets on lessons learned from the RMP.	Meg Sedlak/ Jay Davis	
Revise and submit final information needs statements to the Master Plan – to be used as a goal for RMP studies	TRC members	
Develop a memo discussing the number of sampling sites in the RMP.	John Oram	Deferred until December
Outline a method for the review and dissemination of SEP projects for September TRC meeting	Meg Sedlak	

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Present RMP SEP projects to BACWA at their annual meeting or to the Executive Board	Meg Sedlak	
Keep a running tally on next steps and possible collaboration with SCCWRP's CTAG group and attend each other's planning meetings to grow collaborations	Meg Sedlak	Will present at the August SC meeting
Develop pollutant-specific links on the website. Include management questions and reports of interest.	John Oram / Meg Sedlak	To be considered as part of the RMP redesign of the website
Discuss incorporation of factsheets at next TRC meeting	Meg Sedlak	
Get feedback on the factsheets from the Steering Committee	Meg Sedlak	

Item 6: Pilot and Special Studies Recommendations

**Summary Table of Pilot Study Proposals (rev 080909)
and Status & Trends Elements - 2010**

Studies to be funded					
Study type	Study No.	Title	Budget	Rank	Rationale/Comment
PS/SS - PCB Strategy	14	Monitoring of small fish for PCBs	\$50,000		
PS/SS	7	SQO development for San Francisco Bay	\$30,000		
PS/SS - Small Trib Strategy	11	POC Loads Monitoring in Representative Watersheds – Reconnaissance	\$12,000		
PS/SS - Small Trib Strategy	10	Develop and update spreadsheet model	\$35,000		Could be deferred for a year??
PS/SS - Modelling Strategy	13	Conceptual model for bioaccumulation	\$40,600		
PS/SS - Small Trib Strategy	9	POC Loads Monitoring – Scoping Needs for “Land Use” specific monitoring	\$30,000		
PS/SS - Modelling Strategy	12	Proposal to develop highly-resolved three-dimensional model of the South Bay	\$100,000		**Recommend to fund pending a road map document outlining check-ins, future data needs and collaborations. JO to finish by 11/09.
Dioxin strategy		Surface water monitoring of loads from Guadalupe and Delta	\$68,000		
PS/SS	3	Estimation of PBDE thresholds in common terns	\$48,500		**Determine what is happening nationally - sportfish, bird eggs, etc.
PS/SS	16	Screening of biological matrices for anthropogenic pollutants	\$55,000		
		Develop atmospheric deposition strategy	\$10,000		
		Running total	\$479,100		

Studies to be deferred					
PS/SS	4	Impact of dissolved copper and olfactory system of juvenile salmon	\$51,600		Needs to be re-scoped. It is a permit condition. Bring to EEWG as agenda item.
PS/SS - PCB Strategy	15	PCB Conceptual Model 1.5	\$25,000		High priority for 2011. RMP will have more congener data. TMDL out shortly.
PS/SS - SPLWG		Monitoring and Modeling Contributions of Atmospheric Deposition to Watershed Mercury Loads	\$65,000		Delay to 2011 and develop a larger strategy to address atmospheric deposition.

Workgroup Activities – Third Quarter 2009

A. Contaminant Fate Workgroup

Meetings:

The Contaminant Fate Workgroup meeting was held June 10th, 2009. There were presentations and discussion on an RMP modeling strategy and its potential components. Brief updates on the RMP mercury and PCB strategies were presented. Coring study results and lessons learned for future studies were discussed. Proposed pilot and special studies for 2010 were discussed and ranked. Minutes from this meeting can be reviewed on the SFEI website. Presentations (as permitted by presenters) are also posted at our web site.

The date for the next CFWG meeting will be 26th (Tuesday). The Annual Mercury Meeting will be held the following day on the 27th (Wednesday).

Milestones:

- Sediment coring project
 - All laboratory analyses are complete and a presentation will be given at the Annual meeting on this. Pulse article has been prepared and a presentation was given at the Annual Meeting.
- Completion of methylmercury simple mass balance manuscript

Activities for the fourth quarter of 2009:

- Workplan with milestones and deliverables for the modeling project. Funding for the 2010 project is contingent upon the review and approval of this workplan
- Bay Margins model to be completed
- Incorporating PCB homologues into the existing multi-box model
- Produce technical report/manuscripts for coring study
- Remote sensing report.
- Mercury sediment article

For more information, see previous CFWG minutes and agenda at our website http://www.sfei.org/rmp/rmp_minutes_agendas.html or contact the CFWG leader, Don Yee, at don@sfei.org.

B. Sources Pathways and Loading Workgroup (SPLWG)

Meetings:

Next workgroup meeting is scheduled for December 3rd, 2009. Previous meeting in the 2nd quarter was held on May 27th. Presentations from the meeting are posted to the SFEI website.

Milestones during the third quarter:

- Preparation for first flush sampling.

Activities for fourth quarter 2009

- Continue work on the strategy elements presently funded (3a Develop Criteria and Rank Watersheds; 3b Optimize Sampling Methods Including Trends Analysis; 3c Develop Multi-year Watershed Loading Sampling Plan)
- Complete a draft report for review of Z4LA small tributaries loading study - year 3 and send out for review
- Complete and submit manuscripts for PCBs and OC pesticides and trace metals in Guadalupe River

For more information, see previous SPLWG minutes and agenda at our website http://www.sfei.org/rmp/rmp_minutes_agendas.html or contact the SPLWG lead, Lester McKee, at Lester@sfei.org.

C. Exposure and Effects Pilot Study (EEPS) Workgroup

Meetings:

A workgroup meeting was met on July 6th. Date of the next meeting is to be determined.

Milestones:

- The Small Fish intensive sampling for 2009 has commenced and the DGT mercury films have been deployed at a subset of the Small Fish sites.

Activities for the fourth quarter 2009:

- Continuation of USGS and USFWS study on terns and hatchability success and mercury egg concentrations.
- Continuation of the Small Fish study. Spatial collection to be completed by November 1.
- Continuation of NOAA study on juvenile flatfish. The first year of the study was focused on zebra fish as a model fish and exposure of the fish to four and five ringed PAHs that are common in SF Bay sediments. This year will focus on juvenile California halibut.
- Completion of the EEPS five-year plan.

For more information, see previous EEWG minutes and agenda at our website http://www.sfei.org/rmp/rmp_minutes_agendas.html or contact the EEWG lead, Meg Sedlak, at meg@sfei.org.

D. Emerging Contaminants Workgroup

Meetings:

The workgroup met on April 17th to review the proposed pilot and special studies for 2010.

Milestones:

- Sample collection and analyses for alternative flame retardants. Preliminary reporting of some of the data sets.
- Collection of water and small fish samples for the Sources of PFCs.

Activities for the fourth quarter 2009:

- Evaluation and synthesis of alternative flame retardant data and preparation of a manuscript.
- Continue sampling effluent and sediment for the pilot study on Sources of PFCs.
- Completion of the 2009 White Paper on Chemicals of Concern.
- Hosting the NOAA Mussel Watch meeting at SFEI on October 20th and 21st.

Next meeting will be scheduled for March 26, 2010 to coincide with the American Chemical Society meetings.

For more information, see previous EC workgroup minutes and agenda at our website http://www.sfei.org/rmp/rmp_minutes_agendas.html or contact the ECWG lead, Meg Sedlak, at meg@sfei.org.

E. Causes of Toxicity

The UC-Davis Granite Canyon work under the Causes of Toxicity element (2009) has commenced on the project to:

- Evaluate the use of freshwater test organisms in areas such as the river stations where the salinity is low for the RMP Status and Trends program;
- Focus on developing LC50 thresholds of effects for estuarine test species to aid in comparisons; and
- Develop a collaborative state-wide workgroup and research effort to address causes of persistent moderate toxicity. This effort should begin by convening one or more workgroups in 2009, in collaboration with SCCWRP and the State Water Board, to investigate and consider methods such as genomics and other sub-lethal markers of contaminant exposure that may be useful in identifying causes of moderate toxicity.
- Further research solid phase toxicity identification and evaluation (TIE) methods.

For more information, please contact Sarah Lowe at Sarahl@sfei.org.

F. Benthic Workshops

Meetings:

Sediment Quality Objectives for Enclosed Bays and Estuaries (SQO Phase I) was promulgated in February 2008. Benthic indicators form one line-of-evidence in the SQO assessment procedure. However, in mesohaline areas of San Francisco Estuary, such as San Pablo and South bays, current benthic indices require revision. In oligohaline areas, such as Suisun Bay, benthic indices have yet to be developed.

Two benthic workshops to discuss these topics have been held (June 3rd and August 24th). The goals of the workshops were to agree upon the spatial and temporal extent of benthic assemblages in the Estuary and decide upon suitable assessment methods for development of a mesohaline benthic index.

Milestones:

- A standardized dataset of benthic macrofauna data from the San Francisco Estuary was compiled and used for cluster analysis
- After reviewing cluster results, the workgroup agreed upon initial benthic assemblage classification in the Estuary. The initial classification contained nine groups:
 - Groups 1-3 are tidal fresh stations in the Delta with very different species but have similar abiotic ranges
 - Group 4 are mostly located in Suisun Bay
 - Group 5 are from mostly sandy habitats with several unique taxa
 - Groups 6 - 9 represent a gradient of taxa along the estuary salinity gradient
 - The classification was rerun using a cube root, square root and presence/absence values for taxa. In general, there was very little difference using different transformations, demonstrating that the method was robust.
 - After evaluating the effects of including and excluding the monthly DWR sampling, it was determined that monthly sampling did not affect the results so all DWR data was included in the analyses.
 - None of the re-runs identified new classification groups.
- Mesohaline index methods were discussed. The workgroup agreed that a Best Professional Judgment (BPJ) exercise (as was done in SQO Phase I) would provide the best opportunity to identify benthic response gradients in the assemblages, to support mesohaline index development and validation.

Activities for the fourth quarter 2009:

- SCCWRP-SFEI team to evaluate samples for use in BPJ exercise
- Bruce Thompson and Steve Weisberg to identify and recruit BPJ experts

The next benthic workgroup meeting will be held in January 2010.

For more information, please contact the benthic workgroup leads, Bruce Thompson, at brucet@sfei.org, Aroon Melwani, at aroon@sfei.org, or Sarah Lowe, at Sarahl@sfei.org

G. Status and Trends Sport Fish

Sportfish planning meeting for the 2009 sampling was held on November 5th. A sampling plan has been prepared and approved by the committee. Moss Landing Marine Labs has successfully collected sportfish and samples are being shipped to the labs. The cost of this sampling exercise will be shared with SWAMP.

For more information, please contact Jennifer Hunt at jhunt@sfei.org.

H. Other meetings of interest

LTMS is sponsoring a two-day workshop on green sturgeon, longfin smelt, and dredging operations on December 2nd and 3rd. Information on this workshop and registration can be found at the SFEI web site. www.sfei.org/cb.

For more information, please contact Ben Greenfield at ben@sfei.org.