

**RMP Technical Review Committee Meeting
March 10, 2009
San Francisco Estuary Institute
Draft Meeting Minutes**

Attendees:

Bridgette DeShields (Arcadis/WSPA)	Jay Davis (SFEI)
Eric Dunlavey (City of San Jose)	Rainer Hoenicke (SFEI)
Tom Hall (South Bay Dischargers (EOA))	Susan Klosterhaus (SFEI)
Mike Kellogg (CCSF)	Meg Sedlak (SFEI)
John Prall (Port of Oakland)	
Francois Rodigari (EBMUD/BACWA)	
Chris Sommers (Stormwater Agencies (EOA))	
Karen Taberski (RWQCB)	

1. Introductions and Approval of Agenda and Minutes

The Chair asked for comments on the minutes; Meg Sedlak indicated that a number of the action items had been addressed. With regard to the question of whether Andy Cohen was continuing shellfish surveys, Meg indicated that this was being conducted on an *ad hoc* basis using hard substrate as a proxy for potential beds. Tom Hall requested the 2008 report and then later in the meeting noted that because the project was on a stop work order, the 2008 report would be delayed.

Meg Sedlak indicated that based on the TRC's recommendation in December, approximately \$60,000 of the \$80,000 of Data Integration tasks had been allocated and that the remaining \$20,000 had been reallocated to the completion of reporting on the coring project. Chris Sommers requested a discussion of Data Integration task, its purpose, and the process of selecting Data Integration studies at the next TRC meeting.

Karen Taberski requested that the workgroup summaries be more explicit in summarizing the results of studies.

A motion for approval of the minutes was made by Karen Taberski and seconded by Bridgette DeShields.

2. Update on the Financial Status of the Institute

Rainer Hoenicke gave a short update on the financial status of the Institute. The Institute lost 40 percent of its revenue due to the State financial crisis and issuance of stop work orders. As a result of the decrease in revenue, SFEI has implemented a number of cost-saving measures to reduce its expenditures including cessation of employee 403 (b) contributions, deferment of proposed 2009 employee raises, reduction of staff, deferment of the financial audit, and suspension of the Executive Director search. With the implementation of these measures and the successful identification of new projects, the Institute appears to be on track to maintaining its financial obligations. Rainer indicated that the Institute was tracking this carefully and providing

the SFEI Board with frequent updates. Bridgette DeShields asked whether any of the stop-work order projects were collaborative RMP projects. Ms. Sedlak indicated that this was not the case.

3. Information: Steering Committee Report

Meg Sedlak reviewed the major items from the Steering Committee meeting on January 21, 2009 including addressing a significant budget shortfall for 2009 and approving the fee increase for 2010.

The RMP budget was approximately \$96,000 short due to a reduction in participant fees and interest rates due to the stagnant economy. One NPDES discharger was removed from the list of permit holders (a shortfall of ~ \$14,000) and the dredgers had a shortfall of approximately \$64,000. In addition, interest from income was estimated to be \$65,000 approximately half of what it had been in 2008. As a result, the SC elected to defer the 2008 dioxin work totaling \$114,000 and return this amount to the reserve and use reserve funding to make up for the shortfall. Ms. Sedlak indicated that there is approximately \$171,000 that the Water Board is holding of RMP fees from prior years from CalTrans and that the Water Board has promised the transfer of these funds in the second or third quarter of this year. Once this money is received, the 2008 dioxin funding will be taken from the reserve and the work will commence. Ms. Sedlak indicated that the dioxin work would be conducted in stages to assure that meaningful results are obtained (i.e., surface sediment samples will be analyzed first and then the cores).

The SC approved a two percent fee increase for the Program for 2010. The 2010 RMP fees will be \$3,236,734.

4. Update on RMP Planning

Jay Davis provided an update on the strategies and master plan.

- Small Tributary Loading Strategy (STLS). A STLS subgroup (Looker, Stein, Stenstrom, Davis, Feng, Sommers, and McKee) met on February 20th. A major goal is assuring that the good technical studies that are progressing under the RMP are in alignment with the Municipal Regional Permit (MRP). The STLS will be drafted, distributed to the STLS team for review, then to the SPL workgroup on May 27th for review. Karen Taberski asked to be notified about STLS meetings.
- PCB Strategy. The PCB Strategy team includes DeShields, Rodigari, Marcus Cole, Jon Konnan, Naomi Feger, Davis, Sedlak and Jan O'Hara. Jay indicated that he has met with Naomi to begin to outline the foundation of the strategy and review the PCB conceptual model. Alignment with the PCB TMDL will be critical. A strategy meeting will be scheduled shortly.
- Modeling Strategy. John Oram discussed this later in the meeting.

Jay Davis indicated that by the next TRC meeting, in a draft of the RMP Master Plan, he will integrate the strategies with the five-year workplans that each of the workgroups are developing.

Jay also noted that the Steering Committee has directed staff and the TRC to develop a list of projects that could be considered for SEP funding if there is insufficient money to fund them through the RMP. Tom Hall commented that the State Board recently revised its Supplemental Environmental Projects (SEPs). SEPs need a nexus between the violation and the project. There is a 50% cap on how much of the penalty can go to the SEP.

Chris Sommers noted that RMP participants (e.g., Jim McGrath and Dave Tucker) have been very wary of SEPs in the past. He noted that the dischargers who will fund these projects through enforcement fines need to be made aware that the RMPSEP projects are priority projects that have been vetted by the discharge community and RWQCB. Francois Rodigari suggested that SFEI could work with BACWA to develop a list, including input from key BACWA players and the BACWA Executive Committee. Chris suggested that BACWA should develop a memorandum for its dischargers that indicates which projects have been reviewed and will be supervised by the RMP. Chris noted that there are substantial costs for the dischargers associated with managing these projects and if the RMP or SFEI take this role some of the concerns for the dischargers may be alleviated.

John Oram indicated that SCCWRP maintains a list of SEP projects that its discharger community has approved. Chris Sommers asked that the SCCWRP model be outlined and brought back to the TRC in a memo. Meg Sedlak indicated that she would review the State Board's revised policy and outline a method for the review and dissemination of SEP projects. Mike Kellogg suggested that an option to partially fund a larger project or elect to have funds set-aside for larger projects would be desirable.

Action Items:

- Present RMP SEP projects to BACWA at their annual meeting or to the Executive Board
- Prepare memo outlining a method for the review and dissemination of SEP projects

5. Update on Modeling Strategy

John Oram gave an update on the modeling strategy and the need for a thorough understanding of hydrodynamics and sediment and contaminant transport. We have a pretty good conceptual understanding of the hydrodynamics but the other two elements are not yet developed. John outlined the three questions that the modeling strategy is addressing:

- Q1 Bay Margin: What is the contribution of the contaminated Bay margins in the Bay and what are the projected impacts of management actions to the Bay's recovery?
 - John suggested that the best way to delineate this may be through use of a flexible grid model such as the Delft model or SUNTANS.
 - John indicated that there is a choice between proprietary models which are easier to get running but harder to share and the free open source models which require some coding and modification prior to running but are state of the art and easily shared with colleagues.
- Q2 : What are patterns of exposure?
- Q3: Small Tributary Loading?

Comments received on the draft Strategy are that it needs to integrate hydrodynamics and sediment and contaminant transport; to define the terms bay margins and contaminated sites; to clearly articulate the intended use of the model (e.g., for TMDL development, etc.) and to clearly identify potential management actions. Another important comment was that if biotic contaminant concentrations will be evaluated then the models need to be developed with consideration of this early on.

The modeling strategy will need to be included in the Contaminant Fate workgroup's five year plan and the CFWG should be listed as providing oversight for the work.

John Oram also presented a proposal for work to be conducted in 2009. In January, an opportunity was identified to be involved in the development of a South Bay hydrodynamics model. Just prior to the meeting, it was determined that the project was put on hold.

The group indicated that the proposal was premature for a number of reasons including the modeling strategy had not been approved; it was not clear how this proposal would fit within the conceptual model that is being developed in a special study this year; it was not clear the priority of this study against all other potential pilot and special studies; it appeared that SFEI had allocated insufficient resources to manage this project there is a risk with piggybacking that RMP needs won't be met adequately. Chris Sommers commented that more time for vetting is needed before proposals like this can be decided on. Chris also expressed a concern with fine resolution work that it is hard to do and can get more and more expensive with a risk of not getting an answer or having error bars that are too large. Another concern is whether the model will actually be used by the Water Board, after the experience with the PCB multi-box model. Chris recommended a more formal process in which we choose a direction and then find the best contractor for the work.

The consensus of the group was that the study should not be funded at this time but considered for funding in 2010.

6. Update on Mercury Studies

Ben Greenfield gave an update on the current RMP mercury studies including the small fish, the mercury isotope and the mercury diffusive gradient thin (DGTs) film project. Presentations from each of these projects are available from the SFEI web site under the 2009 Mercury Meeting. Ben noted that the correlation between small fish and DGTs was not very good and that this year the DGT team was making a number of modifications to the sample design including longer deployment and deploying the DGTs over the same period of time that the fish are exposed in an effort to improve that correlation.

7. Dioxin QAPP

Don Yee gave an update on the dioxin QAPP which should be finished shortly. Don indicated that three sediment samples had been sent to AXYS for pro bono analyses to assure that they could achieve adequate detection limits for RMP needs.

The main challenge was obtaining detections for the tetra and penta dioxins in the sediment. Don indicated that there were relatively few nondetects for these compounds in the sediment. Jay Davis noted that the river site (BG-30), which has some of the lowest dioxin concentrations, had nondetects for some of the congeners that contribute most to TEQs, but this was a relatively low concentration sample. Susan Klosterhaus and Don Yee were in general quite pleased with the low detection limits that AXYS was able to achieve.

Don Yee indicated that the draft QAPP would be sent to the TRC members in a week and that it would be finalized mid-April. Francois Rodigari asked how the laboratory dried their sample and whether they used diatomaceous earth as this can be a source of contamination. Dr. Rodigari also indicated that Frontier labs guaranteed no blank contamination in their dioxin samples.

Action Item:

- Draft Dioxin QA/QC plan will be sent to TRC.

8. PAH in Water: Decisions for the 2009 S&T Cruise

In 2008, the RMP sampled water for PAHs because of the Cosco Busan spill that occurred in November 2007. With the exception of PBDEs and PAHs, all water organics were deferred to 2009. The TRC requested that if the concentrations of PAHs were similar to prior years that the water PAH analyses be dropped for 2009.

Susan Klosterhaus gave a short overview of the spill and RMP water results. The oil that was spilled was Bunker fuel oil cut with diesel. Very little of this would be expected to be detected in the water column. Susan indicated that based on the work of Chris Reddy at Woods Hole Oceanographic Institute of San Francisco Bay water, the initial spill results showed elevated levels of alkylated PAHs but that these compounds dissipated rapidly over a two-month period. Susan indicated that the RMP concentrations of PAHs in water with the exception of one sample were in the range of concentrations observed historically. Very few alkylated compounds were detected. The Yerba Buena Island site in the vicinity of the spill (BC10) had elevated concentrations of PAHs; however, the suspended sediment concentrations for this site were not available yet so it could be determined if this was elevated due to higher SSC.

Chris Sommers and Karen Taberski indicated that they did not see a need to do PAH water sampling in 2009 and the group concurred. When the SSC results are available, Susan will provide the TRC with a memorandum summarizing the results of this analysis. Karen indicated that a report on the results of the monitoring done after the spill will be released by the end of the year. At that time, a complete story of the effects of the spill can be told.

Action Item:

- Prepare memorandum on PAH water concentrations and decision to defer PAH sampling in 2009.

9. MRES Pesticide Water Analyses

Meg Sedlak presented the results of a 2008 intercomparison exercise on the analysis of water samples for pesticides. She provided a memorandum summarizing some of the analytical problems that the RMP had had in past and the need for a new method for analyzing for pesticides. California Dept. Fish and Game analyzed the RMP samples for pesticides until 2005. In 2004 and 2005 substantial QA/QC issues were identified with the reported pesticide water data sets resulting in the data sets being rejected. AXYS recently developed a high resolution mass spec (HRMS) method for analyzing pesticides (including the desired chlorpyrifos and diazinon) in whole water samples. In 2008, side by side analyses were conducted at six stations (one in each segment plus a duplicate) using whole water grab samples and the high volume column method. The whole water samples had higher detection limits; however greater concentrations were observed in the whole water samples (approximately one third to one half higher). The data from the whole water and the high volume samples were generally comparable and consistent with historical results.

Chris Sommers asked how the chlorpyrifos and diazinon samples compared to the CTR values. Meg indicated that they were substantially below the CTR.

Based on the memorandum and the presentation, the TRC recommended that whole water samples be collected at three stations where we are collecting whole water samples for other organics and that the high volume method be used.

Action Item:

- Check if AXYS can analyze more pyrethroids.

10. Update on Cores

Don Yee presented the results of the coring project. The sediment coring project inventories contaminant distributions (spatially and historically) in sediment around the Bay and provides data for contaminant model development and validation. To determine pollutant loading history from sediment cores, Don Yee matched sediment layers to associated time periods through bathymetric history, isotope dating, or radio-dating (data not yet available). For each region of the Bay, Don Yee showed several examples of core dating using bathymetry, cesium presence (known 1960s peak) and lead 210 decay, establishing approximate timeframes for sediment layers. For each of the core sites, he showed metal and PCB concentrations over the length of the core and discussed the timing of pollutant concentration peaks, comparing them to known historical loadings. Don Yee found that bathymetry and isotope dating gave indicated similar sedimentation: Suisun Bay and San Pablo Bay are eroding, Central Bay and South Bay are neutral/eroding and Lower South Bay is accreting. Don Yee found that cores from wetland sites directly track pollutant loading history, but results from Bay cores were difficult to interpret as some sites had eroded or the sediment was well-mixed. Also, for Bay cores, the bathymetric history, isotope dating and expected/known pollutant signal did not always match up, again making interpretation difficult. A major highlight of Don Yee's results is that there few 'ticking time bombs' in the Bay as historical pollutant loads have mostly eroded or been dispersed.

Jay Davis reminded the group that coring is again scheduled for 2010 and that this will need to be a topic for discussion at the next CFWG meeting and the September TRC meeting. A summary report of the coring work should be available for the fall CFWG meeting. The report will make recommendations for future work.

Action Item:

- Design a coring sampling plan for 2010, present at CFWG and TRC meeting.

11. Update on Pulse / Annual Meeting

Jay Davis indicated that we currently have five articles for the Pulse: sediment as a resource (Dredgers/ Werme); sediment budget (Schoelhammer); sediment bathymetry (Jaffee); sediment quality objectives (Beegan) and sediment cores (Yee). Jay requested photographs of mud for the Pulse.

Jay Davis also requested suggestions on keynote speakers. Several themes had been suggested including impacts of climate change on Bay hydrodynamics and sediment budget. Someone from NOAA's Western Region Science Center was suggested. Climate change impacts on water quality could occur due to sea level rise, changes in freshwater inflow, and levee failures. Possibilities for speakers that were mentioned included Kamyar Guivetchi of DWR on the Cal Water Plan, Patrick Barnard of USGS on his sediment modeling, and Jeff Mount of UC Davis on levees. The group liked the idea of Dick Dugdale presenting at the Annual Meeting as a companion to a presentation by Jim Cloern. The group requested that a presentation on Lester McKee's numerical nutrient endpoint work be included on the next TRC agenda.

Meg Sedlak indicated that the Oakland Museum was not available this year because it is being renovated. She presented three other options in a memorandum: Water Board auditorium; the Asia Pacific Cultural Center; and the Scottish Rites building on Lake Merritt. The TRC thought the Scottish Rites Center best accommodated the RMP needs. A few other suggestions were made at the meeting such as the Garden Center on Lake Merritt; however, it did not have sufficient capacity.

Action Items:

- Include a presentation on Lester McKee's numerical nutrient endpoint work on the next TRC agenda

12. Procedures for Nominating and Approving the Chair

Meg Sedlak provided a memorandum outlining the procedure for nominating the chair. The memorandum also articulated that the title of chair did not confer additional authority or compensation. She explained that a similar memorandum had been developed and approved for the Steering Committee.

The TRC reviewed the memorandum. Chris Sommers and Mike Kellogg made a motion to approve the memorandum. The memorandum passed unanimously. Chris Sommers and

Francois Rodigari then nominated and the TRC approved Bridgette DeShields to be chair for 2009.

Ms. Sedlak handed out the agenda for the joint CTAG and TRC meeting in May and reminded the group to start making travel arrangements for the meeting.

12. Update on Workgroup Activities

A short update on workgroup activities was given. Ms. Sedlak stated that in the second quarter all of the workgroups would be meeting to develop pilot and special study ideas and strongly encouraged people to attend the workgroup meetings.

The next TRC meeting is scheduled for Thursday, July 9th.

ACTION	WHO	STATUS
Prepare summary memorandum regarding PAH concentrations in water and the decision not to analyze water samples for PAHs	Susan Klosterhaus	
Outline a method for the review and dissemination of SEP projects for July TRC meeting	Meg Sedlak	
Present RMP SEP projects to BACWA at their annual meeting or to the Executive Board	Meg Sedlak	
Workgroup summaries to be more explicit	Meg Sedlak	
Modeling strategy will need to be included in the Contaminant Fate workgroup's five year plan.	John Oram	
Draft Dioxin QA/QC plan will be sent to TRC	Don Yee	
Coring project for 2010 to be discussed at the next CFWG meeting and the September TRC meeting.		
Revise ten-year plan to include unallocated reserves	Meg Sedlak	
Develop a PCB strategy for TRC comment and schedule meeting	Jay Davis	
Provide an update on statistical element of redesign at TRC meeting	Sarah Lowe	
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	Meg Sedlak	

next TRC meeting		
Get feedback on the factsheets from the Steering Committee	Meg Sedlak	
Follow-up with Chris (BASMAA) on ideas for website development.	John Oram/ Meg Sedlak	
Send Jay contact information for restoration/remediation work at Castro Cove and Coyote Creek	Bridgette DeShields	
Send Jay contact information for the BCDC work on sediment transport	Karen Taberski	