

**RMP Technical Review Committee Meeting
March 27th, 2007
San Francisco Estuary Institute
Meeting Minutes
DRAFT**

Attendees:

Bridgette DeShields (BBL/WSPA)
Tom Hall (South Bay Dischargers (EOA))
Mike Kellogg (CCSF)
Jim McGrath (SFEI Board of Directors)
Francois Rodigari (EBMUD)
Chris Sommers (Stormwater Agencies (EOA))
Karen Taberski (RWQCB)
Mike Connor (SFEI)
Jay Davis (SFEI)
Meg Sedlak (SFEI)
Katie Harrold (SFEI)
Andrew Cohen (SFEI)
Bruce Thompson (SFEI)
Don Yee (SFEI)

1. Introductions and Approval of Agenda and Minutes

In Dave Tucker's absence, Karen Taberski chaired the meeting.

Ms. Sedlak gave a brief update on the action items from the December TRC meeting.

Meg Sedlak discussed the proposed reduction in water stations with Richard Looker at the Water Board per the Committee's request. Mr. Looker indicated that the reduction would not impact copper and nickel trigger levels so long as there are five stations per segment in the Lower South Bay and three stations per segment in the remaining four segments. This results in a total of 22 sites, two more than the proposed 20.

In addition, Meg Sedlak spoke with Fred Hetzel of the Water Board regarding the frequency of organic analyte analyses per Committee request. Mr. Hetzel endorsed reducing the frequency of pesticide, PAH, and PCB analyses to every other year. PBDEs will continue to be analyzed annually.

Karen Taberski noted that the minutes from the December TRC meeting do not capture the presentation she gave on SWAMP. Meg Sedlak will work with Ms. Taberski to revise this section of the minutes.

Pending revisions of the SWAMP section, Karen Taberski motioned to approve the minutes, and Bridgette DeShields seconded.

Action items: Include action items from the March 2007 meeting into the action items previously developed. Update December 2006 minutes to reflect Karen Taberski's comments.

2. Information: January Steering Committee Minutes

Meg Sedlak provided a brief summary of the Steering Committee (SC) meeting on January 22nd, 2007. Items discussed at the meeting included: a budget update, the proposal for UCSC to conduct a special study in 2007, and approval of the line item 2007 budget and the 2008 fees.

The 2007 line item budget was approved. There was approximately \$80,000 in carryover labor costs associated with unfinished tasks from 2006 including the Mallard Island and Guadalupe River reports, the PRISM study (completed) and the benthos report (completed). The UCSC intercalibration study/special study on mercury was approved by the Steering Committee; however, they requested that the TRC review the special study for technical content. The intercalibration exercise involves splitting samples with the University and a commercial laboratory to ensure that the commercial laboratory can achieve comparable results.

The idea for moving the Annual RMP meeting to different locations was explored and discussed with the Steering Committee. The Steering Committee thought that the current location is centrally located for public transportation and driving as well as cost effective; moving to San Francisco would potentially be three times as expensive as Oakland. A map showing the distribution of attendance was presented to the TRC showing high attendance from the south and low attendance in the north, supporting the idea that the current north central location was not deterring attendance by southern RMP members. Many of the POTWS from the North were not present at the 2006 meeting. The major dredgers attend while the small dredgers generally do not. It was agreed that the current location is acceptable; however, potential alternatives will continue to be explored for 2008.

3. Information: Seasonality Meeting January 17th, 2007 Report

Meg Sedlak provided a brief summary of the Seasonality Meeting. The attendees at the Seasonality Meeting concluded that although wet season concentrations of metals are more variable, the metals are generally below guideline levels. They discussed the difficulties of characterizing the wet season variability and discussed whether one sample from one event was representative of all conditions in the winter. Most people felt that it was not.

Karen Taberski indicated that the Water Board has not yet made a decision regarding wet season sampling (including the frequency of this sampling event). The TMDL and Permitting section leads are still discussing their data needs. Karen commented that a strong case has not yet been made by the Permitting section on the need for winter sampling.

Mike Kellogg suggested that there may be a technological fix, such a composite sampling method, that would generate an average wet weather sample. The group pointed out that mussel monitoring during the summer does provide an average signal during the dry season.

Mike Connor suggested using an integrated sample for the calculation of the reasonable potential analysis (RPA) for permits. Chris Sommers and Tom Hall stated that the calculation of RPA would not allow for the use of an integrated sample as the calculation is driven by one maximum point not the average. It was pointed out that for uptake and source studies an integrated sample would not allow for further elucidation of sources.

4. Action: Bird Egg Monitoring

Jay Davis presented the rationale for including bird egg monitoring in the RMP. The consensus of the EEPS workgroup was that cormorants and terns represent very different habitats and foraging and therefore, both were very useful and important to include in the Status and Trends program. For example, terns forage in the shallow areas of the Bay, they are specifically called out in the mercury TMDL, there is substantial variation in terns, and there is a high potential for adverse effects. In contrast, cormorants forage in the deep waters of the Bay, are better indicators of trends, and are less sensitive than terns to effects of contaminants.

Karen Taberski strongly supported monitoring both tern and cormorant eggs.

5. Action: Redesign of Status and Trends

Meg Sedlak presented the revised tables from the Redesign Meeting. She briefly presented the existing elements and savings from proposed redesign as well as the new elements. Based on discussed cuts, there is currently approximately \$320,000 in reductions. Ms. Sedlak indicated that the costs were somewhat qualitative as the cost is a function of the vendor providing the service and assumptions made about logistics (e.g., cost of running the sediment cruise, water cruise, staffing etc.).

Meg Sedlak and Mike Connor presented the TRC votes for inclusion of elements in Status and Trends from the December TRC meeting in which many of the elements were ranked by the votes.

Chris Sommers motioned and Karen Taberski seconded the inclusion of small fish (\$50,000), cormorant and Forster's tern egg monitoring (\$40,000), Guadalupe (\$28,000), large tributary loading (47,000), and small tributary loading (\$150,000).

The TRC felt that there was substantial value including coring in Status and Trends; however, at this time, there is insufficient information to evaluate the current pilot study. As a result, Chris Sommers motioned and Karen Taberski seconded that sediment coring remain in the Pilot and Special Studies pool with a high priority placed on this element.

All other proposed new elements (e.g., winter sampling, benthos) were returned to the Pilot and Special Studies pool.

6. Action: 2006 RMP/CEP Coring Project

Meg Sedlak presented a request by the Copper Development Agency (CDA) to analyze 17 cores taken as part of the RMP/CEP coring project for copper. Currently, the cores are being analyzed for mercury, PCBs, and PBDEs. Because most of the cost of analyzing for metals

comes from the extraction it would be possible to add additional metals to the analysis for a low cost (\$16 per analyte per core segment).

Chris Sommers raised concerns over the fact that the Brake Pad Partnership (BPP) has almost completed a modeling exercise on copper. Based on the initial findings of the BPP, the brake pad manufacturers will pursue other options if the model reveals that brake pads are a major source of copper in the Bay. Chris Sommers questioned what the data collected by the CDA would be used for and if it would potentially be used to call into question the findings of the BPP. He also raised concerns over the lack of a protocol for non-RMP participants to request the RMP to conduct analyses. Tom Hall reminded the group that Ray Arnold, who initiated this request and is currently working with CDA, had served a number of years on the RMP TRC.

Don Yee indicated there are two possible outcomes of the BPP study; either the concentration of copper will increase with depth or remain uniform. The BPP, assuming they are well prepared, will already be considering both of these possible outcomes.

Francois Rodigari suggested that it may be possible to negotiate a better deal for the analysis of additional metals and offered to provide a quote.

The TRC agreed that the copper (and the additional metals) would provide useful information. Tom Hall motioned and Mike Kellogg seconded that the proposal be approved on a technical basis pending SC approval of funding from an outside source. In addition, the TRC felt that it was important for the SC to comment on whether the additional copper information would derail the BPP.

Action item: Meg Sedlak will discuss with the SC acceptance of funding from non-RMP members.

7. Information: RMP Coring

Don Yee presented the status of the RMP coring project. The project has been delayed due to the sectioning of cores and the radio-dating. Don Yee will provide the Committee with a revised work plan. The current delays are due to the long amount of time required to date each sample (1.5-2 days) and competition for machine time.

8. Action: UCSC Special Study for 2007

Don Yee presented a proposal for work on methyl mercury to be conducted by UCSC. He presented several possible questions that would be investigated in this study including effects of handling, effects of extraction methods, and reactivity of mercury in sediments. These studies are designed to fulfill the RMP need for representative and accurate methyl mercury data.

There was some discussion about the extraction method used. Currently, most laboratories use sulfuric acid; however it appears nitric and distillation give higher results. Don Yee noted that distillation has an artifact which sometimes results in an over quantitation. Jay Davis noted that the uses of methyl mercury sediment data from the Bay are largely for

spatial comparisons and models. Therefore, the important element is similar sample treatment rather than being able to compare RMP results with those from other programs elsewhere. Meg Sedlak noted that Richard Looker indicated that dischargers also measure methyl mercury and that having comparable data sets would be useful.

Chris Sommers suggested the idea of collecting and concentrating a large quantity of suspended sediment and analyzing it for methyl mercury and reactive mercury. Jim McGrath noted that the sample would have to be manipulated for an extended period of time, providing ample opportunity for methylation to occur.

Chris Sommers indicated he would like to see a list of proposed sampling sites in order to determine the spatial coverage of the study, especially regarding tributaries to aid future work on loading sources and prioritization of specific watersheds. He would also like to know the total sample size. Karen Taberski commented that San Leandro Bay would be an interesting location to include in the study, as high concentrations were observed there in past sampling.

Chris Sommers motioned to approve the study pending receipt of the sampling locations and Karen Taberski seconded. The committee unanimously approved the study.

Action Item: Don Yee to follow up with UCSC regarding list of sampling sites which will be forwarded to the TRC.

9. Action: Cormorant Egg Analysis

Meg Sedlak and Jay Davis presented the status of the cormorant egg monitoring. The samples collected last year, 2006, are currently frozen and awaiting analysis. There is money in the 2007 budget as unallocated funds that could be used for this analysis.

Mike Connor questioned why this was being brought up without an associated memo and asked what the cost implications were. There was some confusion on the cost of the analysis. Jay Davis indicated that he would send a memo to the TRC on this and would ask for TRC approval through e-mail.

Chris Sommers noted that there seemed to be a substantial amount of unallocated subcontractor funding for 2006. Ms. Sedlak stated that this was a result of cancellation of the episodic toxicity component of the program (~ \$140,000).

Action Items: Jay Davis will write a memorandum regarding the proposal, cost, and source of funding. The TRC will vote on the proposal via email prior to the next Steering Committee meeting on April 24th.

10. Action: Use of Contingency Funds for Invasive Oysters

Andy Cohen presented a proposal to understand the cause of *Crassostrea gigas* (*C. gigas*) into the Bay and to eradicate the invasive oyster. He covered the current knowledge of the invasion of by *C. gigas* into the San Francisco Bay and the current known distribution of the oysters. One of the possible vectors of invasion, based on timing of the invasion and the

location of beds, is bioaccumulation studies by the RMP but he noted that several other monitoring programs had also used *C. gigas*.

Andy Cohen indicated that the goal of the project is to further investigate the original source of the oysters and to eradicate them. They are currently known to be in high intertidal regions and discrete areas within the Bay.

The proposal requests \$30,000 from the RMP, in addition to the \$25,000 secured from the State Coastal Conservancy and \$46,000 requested from the Nation Fish and Wildlife Foundation. In addition, multiple agencies have promised in-kind services such as staff and boats.

Bridgette DeShields commented that this request lacked a precedent as the request was for a management action (e.g., removal of oysters) and the RMP is typically not involved with management actions such as remediation and eradication. Ms. DeShields requested that the SC review this proposal and comment on the appropriateness of using RMP funds for a management action. Jay Davis noted that exotic species are a form of pollution included on the 303(d) list and that the RMP is a pollution monitoring organization, so the responsible course of action would be for the RMP to contribute to reducing the pollution that it may have caused.

Jim McGrath noted that there are substantial funds coming from sources other than the RMP and that there is a potential research component to the project.

Tom Hall and Karen Taberski indicated it would be useful to know where shellfish beds are located and that perhaps while the volunteers are out surveying for *C. gigas* they could also note the presence of other shellfish beds.

Bridgette DeShields suggested breaking the project into two parts, research and management, and indicated that she would support funding the research component. Others supported the concept of emphasizing the research aspect of the work as appropriate for RMP funding. Obtaining as much information as possible on the location of shellfish beds in the Bay would be desirable. Karen Taberski noted that the time to eradicate an invasive species is early in the invasion.

Chris Sommers motioned that the proposal be approved, Tom Hall seconded and the motion was approved unanimously.

Action Item: Andy Cohen to present the proposal to the SC.

11. Information: Pilot and Special Studies 2008

Meg Sedlak presented the current status of the Pilot and Special Studies proposals for 2008. She indicated that the RMP has been soliciting ideas from the workgroups and stakeholders. The RMP is meeting with stakeholders and soliciting project proposals and collaborative project ideas. In addition to the new ideas, several of the 2007 projects will request additional funding for the next phases of the project. Ms. Sedlak indicated that the RMP has

already held one such meeting with the dredging community and is hoping to continue the process with other groups.

Bridgette DeShields volunteered to assist in a meeting with the refineries. Chris Sommers volunteered to assist with BASMAA. Mike Kellogg also offered to service as contact with BACWA.

Karen Taberski indicated that she tries to solicit feedback at Water Board quarterly meetings. She suggested it might be useful to have an RMP representative attend.

Action item: Meg Sedlak to organize meetings with BASMAA, BACWA, and refineries.

12. Information: Water Contamination Index

Bruce Thompson presented a summary of a draft report water contamination index for the Bay. This water index parallels the sediment objectives of the State Sediment Quality Objectives and demonstrates a methodology for analyzing Bay-wide conditions.

The group indicated that it is difficult to create a methodology that effectively characterizes the Bay through a group of metrics. Jay Davis suggested that an alternative method would be to use best professional judgment and noted that an index can sometimes provide misleading information. As an example, the Bay Institute index from 2004 gave a poor grade for wetland restoration even though the largest wetland restoration west of the Mississippi was occurring in San Francisco Bay. Karen Taberski indicated that she liked the process, but that the details (i.e. what is included, combined, excluded) are very important in determining the end product. She indicated that she supports the continuation of the process but that continued input is necessary.

13. Information: 2007 Pulse and Annual Meeting Update

Jay Davis presented an updated outline for the 2007 Pulse. He reminded all authors that rough drafts of their articles are due May 4th.

Mike Connor suggested combining compounds covered in multiple sections (i.e., mercury is covered in sections 3.1 and 3.2). Perhaps a more programmatic approach would allow for easier referencing.

Mike Connor suggested including a figure on spatial patterns in bacterial contamination. Additional sources of information on bacteria include: 303(d) list, EPA, East Bay Regional Parks District, and Meredith Williams.

Mike Connor also suggested adding a map of shellfish beds. This could include past knowledge (the maps from surveys in the 70s) and current best knowledge. He suggested that Karen Taberski, Tom Hall, and Andy Cohen might all be good resources or starting points for current knowledge.

The group suggested several topics for the Annual Meeting. These included synthesizing, status of pelagic resources in the Bay, 35th anniversary of the Clean Water Act: impacts on the Bay, and 35th anniversary of the Clean Water Act: accomplishments and remaining challenges.

The group also suggested several keynote speakers including Wim Kimmer and Larry Kolb. It would be good if the key note speaker could discuss how far we have come since the passage of the Clean Water Act.

14. Action: Academia and the RMP

Meg Sedlak presented several ideas for increasing academic involvement in the RMP per the Steering Committees request at their January meeting. The RMP has significant academic involvement in the workgroups and workshops but relatively little participation in pilot and special studies. The TRC discussed having set aside funding for academia in the RMP; however, it was noted that the funds for RMP are extremely limited and it might not make sense to have a non-competitive component of the program. Mike Connor discussed teaming up with other agencies such as CalFED or Sea Grant to provide matching funds for a postdoctoral scholarship on issues of concern to the Bay.

Due to lack of time, this issue was not resolved. It was recommended that Ms. Sedlak revise the memo and bring it back for discussion at the June meeting.

Action item: Meg Sedlak to bring back a recommendation to the TRC on academia and RMP.

15. Action: Reanalysis of Bivalves

Meg Sedlak presented a proposal to reanalyze the archived 2005 bivalve samples due to increasing numbers of non-detects in recent years. The non-detects are especially problematic for PBDEs because missing congeners prevents calculation of the sum total. Therefore, the RMP is proposing to send seven of the eleven 2005 archived samples for analysis to a new lab with detection limits three orders of magnitude lower than the current lab. The 2006 samples are currently on hold and could also be sent for analysis, pending the results of the 2005 samples.

Karen Taberski motioned passing the proposal and Bridgette DeShields seconded.

The next TRC meeting will be on Tuesday July 10th. The meeting was adjourned at 3:00.

ACTION	WHO	STATUS
Update December 2006 minutes to reflect Karen Taberski's comments.	Meg Sedlak	
Consult SC regarding funding from non-RMP members.	Meg Sedlak	
Determine sampling sites UCSC intends to use and send to TRC.	Meg Sedlak/Don Yee	
Memorandum regarding the proposal, cost, and source of funding for cormorant egg analysis.	Jay Davis	
Organize meetings with BASMAA, BACWA, and the refineries to discuss PS/SS and program needs	Meg Sedlak/ Mike Connor	
Present request for contingency funds for source identification and eradication of an invasive oyster at next SC meeting	Andy Cohen	
Develop a recommendation for incorporating academia into the RMP	Meg Sedlak	