

RMP Technical Review Committee Meeting
December 18th, 2007
San Francisco Estuary Institute
Meeting Minutes

Attendees:

Bridgette DeShields (BBL/WSPA)
Tom Hall (South Bay Dischargers (EOA))
Mike Kellogg (CCSF)
Jim McGrath (SFEI Board)
Francois Rodigari (EBMUD)
Paul Salop (AMS)
Chris Sommers (Stormwater Agencies (EOA))
Karen Taberski (RWQCB)
Dave Tucker (City of San Jose)
Luisa Valiela (USEPA, via phone)

Mike Connor (SFEI)
Jay Davis (SFEI)
Amy Franz (SFEI)
Cristina Grosso (SFEI)
Katie Harrold (SFEI)
Susan Klosterhaus (SFEI)
John Oram (SFEI)
Meg Sedlak (SFEI)
Don Yee (SFEI)

1. Election of New Chair

Dave Tucker retired as chair of the TRC; Ms. Sedlak thanked Dave for his exemplary service as chair and stated that she was looking forward to working with him on the SC. Through an anonymous voting process, Bridgette DeShields was elected to serve as the new TRC chair.

2. Introductions and Approval of Agenda and Minutes

Jay Davis gave a brief update on the action items from the September TRC meeting. The TRC previously recommended that mercury proposals be reviewed by the newly formed Mercury Group. Jay noted however that the intended function of the Mercury Group is to provide big picture prioritization of mercury work in the RMP and not to provide technical review. He suggested that the mercury proposals should be reviewed by the Contaminant Fate and/or Exposure Effects Pilot Study Workgroup instead. Jay requested concurrence from the TRC that the Mercury Group's role is to provide the big picture goals and strategy for mercury studies within SFEI and have oversight of the request for proposals and the TRC agreed.

Francois Rodigari requested clarification on the function and questions being addressed by the Mercury Workgroup. Jay Davis noted that the questions developed by the Mercury Workgroup will be stakeholder driven and the group will meet approximately once per year. The function of the group will be to develop a strategy for mercury studies, while the Contaminant Fate and the Exposure and Effects Workgroups will review proposals and make recommendations based on the questions developed by the Mercury Group. Karen Taberski suggested that the Mercury Group be re-named the Mercury Strategy Team. Chris Sommers suggested that the mercury studies be linked to permit and scientific needs (e.g. TMDL needs) and the management process.

Chris Sommers motioned for approval of the TRC minutes; Bridgette DeShields seconded and the minutes were approved unanimously.

Action items:

- Summarize list of action items and place at end in future meeting minutes.

3. Information: Steering Committee Report

Meg Sedlak summarized the October SC meeting. The next program review will be discussed at the January SC meeting. The SC strongly endorsed the 2007 Pulse and approved the 2008 Program Plan.

4. Information: Annual Meeting and 2008 Pulse

Meg Sedlak presented a summary of the annual meeting surveys. She noted that 30 more people attended the meeting compared to last year and that 20 percent of the attendees turned in surveys. The SC recommended holding the Annual Meeting at the Oakland Museum on September 30th.

Jay Davis presented an outline and tentative schedule for the 2008 Pulse. Dave Tucker noted that the surveys from the 2007 Pulse indicated that only three percent found the management section very useful, though the responses may have been referring to the 2006 Pulse, and that we should determine why this is before choosing the topics for the 2008 Pulse. It was suggested that the management section was disjointed and needed more flow and that a theme was needed which could be the same or change for the Pulse each year. It was suggested that the management section be linked to the feature articles and specifically address the RMP participant agencies/cities and their boards as a target audience. Suggested topics for the 2008 Pulse were: the Municipal Regional Permit (stormwater loads and sources); mercury (source control, minimization of mercury methylation during wetland restoration, inclusion of results of WERF study, etc.); and oil PAH impacts (e.g. diesel emissions from Ports) with a sidebar on the oil spill. Other suggested topics included Sediment Quality Objectives, green chemistry (perhaps wait until 2009 Pulse), how climate change is relevant to the RMP, and innovative management approaches.

Three format options were suggested: (1) present RMP introduction and have sections from each stakeholder, with a theme connected them, (2) featured articles with a theme, or (3) focus on a specific pathway in each Pulse, highlight the regional perspective, provide a short

update of what's new. The TRC requested more input from the SC on article topics and themes.

Action item: Present suggested options to the Steering Committee.

5. Action: Mercury Strategy and RFP

Jay Davis summarized the RMP Mercury Strategy and stressed that the focus is on providing information for decision-making. A RFP has been issued to address Question 2 of the Strategy, which hopes to determine high leverage pathways for methylmercury entry into the foodweb, and is one of the main components of the Five-Year Plan being developed by the Contaminant Fate Workgroup. After this is accomplished, the next goal will be to evaluate how to manage the high leverage pathways.

Jay reviewed the funding budgeted for mercury studies over the next few years. The tentative plan is for the small fish study to be allotted \$150,000 for 3 years and then scaled back to \$100,000. Studies to determine high leverage pathways will be allotted \$100,000 for 2 years and will then be re-evaluated with the potential to increase up to \$150,000 in 2011.

Chris Sommers pointed out that there are studies already addressing pathways of mercury into the foodweb (i.e., NPDES stormwater sampling, WERF POTW study) that should be considered and the RFP doesn't address the existing framework. The NPDES study is being designed and will sample total and methylmercury during storm events; studies funded by the RFP could add on to these studies for less money and permit requirements are already in place.

Jay noted that for now the RMP will focus on mercury strategy questions 1 and 2; question 3 may not be addressed until year 5. Other tasks include development of a methyl mercury budget and conceptual model. Strategy question 5 (will total mercury reductions result in mercury accumulation in the foodweb) could be addressed at any time, but there are not currently any studies planned on this topic.

The TRC requested clarification on how the mercury strategy questions relate to the core RMP management questions and overall objectives before they can approve the mercury strategy questions.

Because the budget and strategy is still in flux, the TRC decided that it is not possible to approve a 5 year plan since it is difficult to plan that far in advance. The TRC recommended to consider years 2 through 5 of the plan as tentative and re-evaluate it on an annual basis, with approval for actual plan elements occurring one year at a time.

Action items:

- SFEI staff to review POTW and stormwater monitoring efforts to make sure there is no redundancy and funds are being spent optimally.
- incorporate statements in 5 year plans that they are approved one year at a time, with plans for years 2 – 5 considered as tentative.

6. Action: Contingency Funding for Oil Spill Monitoring

Input was needed from the TRC on the role of the RMP in the Cosco Busan oil spill which occurred on November 7, 2007. Susan Klosterhaus presented an overview of the spill, including characteristics of the spilled oil and the extent of oiling on shorelines as reported by the Shoreline Coastal Assessment Team maps. She reported that the only modeling of the spill was conducted after the initial release, which was used to predict the spread of oil on the surface for response actions. Subsurface oil modeling was not conducted since the spilled oil was considered a 'floating oil' and therefore the Natural Resource Damage Assessment agencies did not expect significant quantities of oil to become submerged. Some subsurface oil was observed during assessments using plankton nets towed behind a boat and water pumps in the weeks immediately following the spill. Diesel oil was detected in the water intake at the Romberg Tiburon Center within the first week after the spill; however diesel was not detected at the San Francisco Aquarium post-spill. Karen Taberski added that the dredgers will be doing drags with a mesh to determine if submerged oil is present near the Bay Bridge. Karen Taberski also noted that the results of the seafood consumption indicated that diesel oil was generally very low or not detected in fish and mussels collected from the Bay in the weeks following the spill, however mussels collected in Berkeley and Rodeo Beach exceeded the acceptable threshold.

Regarding the role of the RMP, Karen Taberski and Meg Sedlak suggested the RMP could conduct a sediment survey of the Central Bay in the near future to determine the extent of submerged oil. Karen Taberski indicated that ~\$100,000 of funding may be available or a proposal for funding could be submitted. Several TRC members indicated that they did not think it was the role of the RMP to conduct spill response studies for a number of reasons including the fact that a potentially responsible party had been identified and that the RMP might be involved in litigation surrounding the cleanup.

7. Action: Revised RMP Management Questions

Chris Sommers suggested a need to clarify the RMP management questions in order to prevent redundancy and fit them together so that the information is communicated more effectively. He suggested a thorough re-assessment of each objective and question and re-wording where necessary to better communicate the goals of each project (e.g. clarifying mass vs. concentration and impairment vs. effects). He also suggested that the program goal be modified to include objective 6 (communication). Karen Taberski indicated she was in agreement with removing objective 5.

Jay Davis indicated that the RMP objectives were previously updated in a review with Brock Bernstein. Chris Sommers suggested that more specific sub-questions be developed by each RMP workgroup.

Action items:

- Chris Sommers and Jay Davis volunteered to revise the management questions and objectives and to present these drafts to the SC and TRC.

8. RMP 2008 Detailed Workplan

Jay Davis presented an overview of the RMP budget proposed for the next 10 years. TRC members discussed a need for more involvement on their part in identifying the key questions they would like to see the RMP address so that they have more control over the prioritization of funded RMP studies. Mike Connor noted that there is currently not a quantitative way to tell if a management question has been answered in a particular study. Chris Sommers suggested that each proposed study should indicate what effect it will have on uncertainty (e.g. low, moderate, high) and how much impact the study will have on management decisions. Bridgette Deshields suggested that this method could also be used each year as a method for assessing the progress of multi-year studies. TRC members requested discussion on the development of a process to address prioritization of studies and the budget.

Meg Sedlak presented an overview of the 2008 workplan for the Exposure and Effects Pilot Study and the Emerging Contaminants Workgroup. Karen Taberski noted that the sediment toxicity study preferentially impacted *Mytilus* larvae over amphipods and that this may indicate copper toxicity. The TIE studies focused on amphipods and indicated that amphipods were more sensitive to organics while *mytilus* larvae were more sensitive to metals.

Chris Sommers suggested that it would be helpful to add which workgroup has oversight of each line item in the budget and that the workplan was hard to follow because it only included the SFEI labor costs compared to the 10 year plan, which included costs.

Don Yee presented an overview of the 2008 workplan for the Contaminant Fate Workgroup. A large focus is on answering the mercury questions through the Hg proposals, the small fish project and the methyl mercury budget. In addition, the results of the coring work will likely be available toward the end of the year.

John Oram presented an overview of the 2008 workplan for the Sources Pathways and Loading Workgroup (SPLWG).

Cristina Grosso presented an update on data management activities. Cristina indicated that RMP data is SWAMP compatible. Chris Sommers noted that the stormwater permit data will need to be SWAMP comparable as well.

Don Yee presented an overview of RMP quality assurance and quality control issues. He reported that archived bivalves from 2005 were sent to AXYS and that there was an improvement in the results compared to Department of Fish and Game's analyses (i.e. the number of nondetects was reduced). He reported that organophosphate pesticides in water were extracted by AXYS and then analyzed by CDFG. RMP staff are currently working with AXYS to see if they can both extract and analyze the pesticides.

Jay Davis provided an overview of data integration activities. He reported that the multi-box PCB model draft is expected in time for the CFWG meeting mid-January and that the new

PCB concentrations were lower than previous fixed station results and EMAP, which may be the result of a switch in design and methodology. It was especially interesting to note that concentrations in the Bay margins were low. The bivalve data also show a decrease in PCB concentrations. The SQO assessment draft report will be available in early January.

Jay noted that the multi-box mercury model will not happen. The mercury synthesis report will be available in draft form in January/February with a final in April. Two articles, DDT in sediment and metals in sediment should be completed in draft in the first quarter of the year.

Meg Sedlak presented an overview of the 2008 workplan for Status and Trends monitoring. She reported that the number of sediment toxicity sites increased to 27 since 14 sites were not enough with 7 historic sites. In addition, benthos assessments will be conducted on these 14 sites to enable sediment triad assessments to be conducted.

Ms. Sedlak indicated that with regard to the USGS SSC sites, the Hamilton temporary site is not currently operating due to vandalism and that the USGS will discuss with Army Corps of Engineers about whether this station could be moved (e.g., to measure flux at Dumbarton Bridge).

The Brooks Rand metal data have been received and based on a preliminary review, look acceptable with the exception of copper which appears to be biased high compared to historical data; however the data have not gone through the QAQC process yet. The data will be compared to UCSC results for the nine sites where duplicate samples were collected. At present, the UCSC data are not available.

Don Yee presented an update on sediment pyrethroid results and requested input from the TRC on whether pyrethroid analysis should be added to Status and Trends sampling. Don reported that San Mateo Creek contained the highest concentrations and Karen Taberski suggested that a park near the Creek may be the source. Chris Sommers noted that the Robert Holmes et al. statewide pyrethroid toxicity report is due to be released soon and may be of interest. It was noted that others in the area (RWQCB and US EPA (Patty Tenbrook)) are conducting pyrethroid analysis in the Bay and the RMP should coordinate with these agencies. USEPA will be measuring pyrethroids in municipal WWTP effluents. TRC members noted that pyrethroids are considered an emerging contaminant and therefore the RMP should be monitoring them. Chris Sommers suggested that because DPR is going through re-registration of permethrin and bifenthrin that they should be included on the target analyte list, as well as PBO due to its synergistic and antagonistic effects. Karen Taberski mentioned that having more pyrethroid data will allow SQO checks and calibration. Approval from the TRC was requested for analysis of pyrethroids in sediments from the 27 Status and Trends sites in 2008 and passed unanimously. Don also presented a brief summary of pesticide concentrations (chlorpyrifos and diazinon); concentrations appear to have decreased over time. Don reminded the group that pesticides would not be analyzed in 2008.

Ben Greenfield provided an update on the Small Fish project and plans for future work. Ben reported species-specific variation in mercury uptake between and within years as well as spatial variation in uptake by fish across the Bay. Chris Sommers commented that the study

should not only focus on wetland restoration but should also investigate spatial uptake and that he would be interested in seeing a workplan. Ben agreed to incorporate the 2007 data into the workplan. Ben requested approval from the TRC of the Small Fish 2008 workplan and the TRC approved. A request was made to provide the TRC with the small fish workplan.

John Oram provided an update on the Small Tributary Loads (Hayward Zone 4 Line A) project and plans for 2008. John reported that loadings of PCBs, PBDEs, and metals to the Bay from Zone 4 Line A and Guadalupe River were relatively similar despite their large difference in drainage area.

9. Next Meeting

The next meeting will be Tuesday, March 18th, 2008.

Action Items

Action Item	Lead	Comments
SC to develop a list of information needs based on RWQCB and RMP participants	Meg Sedlak	Meg to solicit input in the January SC meeting
The TRC suggested options for the SC to consider on Pulse article topics and themes.	Jay Davis	Jay to solicit input in the January SC meeting
Chris Sommers and Jay Davis volunteered to revise the management questions and objectives and to present these drafts to the SC and TRC.	Jay Davis/ Chris Sommers	Meeting occurred. Revised draft to be presented at the Jan SC and March TRC meeting.
Coordinate with RWQCB and US EPA (Patti Tenbrook) on conducting pyrethroid analysis in the Bay	Meg Sedlak	
Provide the TRC with the small fish workplan	Ben Greenfield	