

**RMP Technical Review Committee Meeting  
March 18<sup>th</sup>, 2008  
San Francisco Estuary Institute  
Draft Meeting Minutes**

**Attendees:**

Bridgette DeShields (BBL/WSPA)	Mike Connor (SFEI)
Eric Dunlavey (City of San Jose)	Jay Davis (SFEI)
Tom Hall (South Bay Dischargers (EOA))	Ben Greenfield (SFEI)
Mike Kellogg (CCSF)	Katie Harrold (SFEI)
Francois Rodigari (EBMUD)	Jen Hunt (SFEI)
Chris Sommers (Stormwater Agencies (EOA))	Susan Klosterhaus (SFEI)
Karen Taberski (RWQCB)	Lester McKee (SFEI)
John Prall (Port of Oakland)	Aroon Melwani (SFEI)
	Meg Sedlak (SFEI)
	Don Yee (SFEI)
	Cristina Grosso (SFEI)
Via phone:	
Brian Anderson (UC Davis)	
Barbara Baginska (RWQCB)	
Richard Looker (RWQCB)	

**1. Introductions and Approval of Agenda and Minutes (Information)**

Karen Taberski noted several corrections to the December 18<sup>th</sup>, 2007 minutes. Chris Sommers suggested that “draft” be added to the minutes.

Chris Sommers motioned that draft minutes be sent out the week before the agenda package to catch errors and for approval. Contingent upon the requested changes, Chris motioned for approval, Karen Taberski seconded and the motion passed unanimously.

**2. Steering Committee Report (Information)**

Meg Sedlak summarized the minutes from the SC on January 29<sup>th</sup>, 2008. Meg Sedlak indicated that the 2007 fiscal year finished largely on target. Direct costs were slightly under. A number of 2007 labor tasks were carried over into 2008.

The 2009 budget, with a 2% increase in participant fees, was approved. The 2008 line item budget was approved. Based on closed contracts from 2003 through 2006, the reserve is at \$344,500, which is greater than the initial goal of \$200,000. Because there may be a number of future requests made to the RMP, the SC decided to maintain the reserve at its current level.

**3. Revised Management Questions (Action)**

Jay Davis presented the revised management questions and thanked Chris Sommers for the considerable time and effort he put in to assist in the revision process. The management questions are designed to go from large scale questions to specific questions (referred to as Level III questions) that can be addressed in the workgroups or Status and Trends program through specific projects or studies. The revised management questions were presented to the SC, which indicated that it approved of the new framework.

Chris Sommers suggested that there was a need to develop an institutional definition of various keywords that may have regulatory meanings. Based on a recommendation from Bridgette DeShields, Jay Davis indicated that the Master Plan would include a glossary.

Chris Sommers asked how the Level II questions could be vetted and how the workgroups would be incorporated into the question development. Jay Davis indicated that the workgroups had used the old management questions to develop Level III questions, which will be incorporated into the Master Plan. Bridgette DeShields suggested that the workgroups revisit their Level III questions each year.

Jay Davis indicated that he would bring the final version of the management questions to the TRC at the July meeting. Karen Taberski motioned and Chris Sommers seconded to approve the Level I and II revised management questions and the motion passed unanimously.

#### **ACTION ITEMS**

- Jay Davis to send the full wording of the revised management questions to the TRC.

#### **4. Outlining the RMP Master Plan (Information)**

Jay Davis presented the draft outline of the RMP Master Plan. He requested assistance from stakeholders on the identification of priority management issues and information needs.

Chris Sommers suggested that the Master Plan should be a framework document and avoid getting to the level of details of specific studies. He also suggested that the Master Plan include an appendix of the management questions and what current studies are addressing each. This appendix would be updated annually and allow the TRC and others to see where the gaps are and refine plans for the future. He suggested that priority questions might also need more frequent updates.

Bridgette DeShields indicated that she would like the Master Plan to capture how the RMP coordinates with other programs.

Chris Sommers indicated that he thought the development of the management context requires input from the Water Board. He suggested that the management context and stakeholder priorities be developed in tandem. Karen Taberski suggested that RMP staff draft the management context and then have Water Board staff provide input. Jay Davis indicated that he would draft the document by the next TRC meeting.

Tom Hall suggested that a subsection on multi-pollutants (e.g., dioxins and dioxin-like PCBs) and mixture effects (e.g., mercury and selenium) be added to the section on matrices of RMP elements and management questions addressed.

#### **ACTION ITEMS**

- Jay Davis to send out a template and schedule for stakeholders to indicate the top management issues they would like the RMP to work on.
- Jay Davis to prepare a draft document for the next TRC meeting

### **5. Update on the 2006 Sport Fish Monitoring (Information)**

Jen Hunt presented an update on the results of the 2006 sport fish monitoring. She indicated that the results are still draft and the report will be completed for TRC review. For 2006, the following indicator species were selected: white croaker and shiner surfperch for organics and striped bass for mercury. Other species were included in 2006 for human health reasons; results for all species are not currently available. The striped bass results will be presented in a separate report pending the results of the otolith study.

Jen Hunt indicated that the main focus was human health screening values derived for PCBs, dioxin, mercury, and pesticides. Karen Taberski asked if there are selenium data for sturgeon. Jen Hunt indicated that there are and that she will make the data available.

Francois Rodigari asked how the total Aroclors were calculated. Jen Hunt indicated that congener concentrations were used to estimate the concentrations of the three Aroclors which were then summed. The sum of Aroclors were used because the OEHHA screening value is based on sum of Aroclors. The use of Aroclor sums derives from the toxicity literature which formerly was based on Aroclor mixtures (e.g., IRIS cancer slope factors are all reported as Aroclors not congeners). Chris Sommers indicated that one of the disadvantages of using Aroclor sums is that congeners may be counted multiple times. Karen Taberski said that she thought OEHHA was moving toward PCB congeners and away from the use of Aroclors. Francois Rodigari indicated he was concerned about people's perception of what the sum of Aroclors means and that he hoped some of the limitations regarding the use of Aroclor sums could be captured in the final report.

Karen Taberski noted that the dioxin levels were previously high because the concentrations were lower than the method detection limit (MDL) and as a result concentrations were estimated at one-half the MDL. She asked if detections were now okay. Jen Hunt reported that since the RMP has switched to AXYS there had not been detection problems.

Mike Connor asked if the congener fingerprints had been analyzed. Jay Davis suggested large changes in the fingerprints would have occurred 30 years ago. Chris Sommers indicated a comparison of watershed congener distributions to Bay congener distributions to fish distributions would be interesting. Lester McKee indicated he would expect profiles from different watersheds and in fish from the Bay to be different. Jay Davis suggested that the idea should be further developed into a special study or study under data integration. He noted that Wally Jarman had conducted work in this area in the past.

The anchovy PCB concentrations are much higher than other species. It was suggested that this might be due to the high lipid content of anchovies or the small sample size (five composites). Karen Taberski asked that the lipid normalized concentrations be calculated and compared.

Chris Sommers suggested that a disclaimer be added to the Meeting Minutes and Agendas website that all presentations are preliminary and are not to be cited or quoted.

Francois Rodigari indicated that he was interested in seeing fish tissue analyzed for the dioxin-like PCBs.

### **ACTION ITEMS**

- Send out presentation to the TRC group
- Add notice to Meeting Minutes and Agendas website that presentations are preliminary do not cite or quote.
- Jay Davis to develop a special study idea or data integration task to look a congener fingerprints in tributaries, Bay and fish.

### **6. Prioritizing Dioxin Data Gaps (Information)**

As a follow up to the dioxin levels observed in fish which continue to remain above the OEHHA screening value for human consumption, Susan Klosterhaus outlined potential areas for further work. She began her presentation by outlining some of the potential pathways to the Bay including stormwater, air deposition, wastewater effluents, and refinery discharges. At present, stormwater appears to be one of the major pathways; however, there is a great deal of uncertainty associated with this estimate. It is based on runoff from two storm events. Chris Sommers clarified that stormwater is a pathway, not a source.

Susan presented existing municipal effluent surveys for dioxin. Francois Rodigari noted that octa-dioxin reported in one of the studies may be an analytical artifact. He said that method blanks for octa-dioxins are often high. He also noted that there are significant hurdles to the analyses in general, including how non-detects are handled and developing and standardizing QA/QC procedures and data quality objectives. He suggested that these issues be dealt with in advance, before data gaps are addressed.

Chris Sommers expressed concern that BACWA, SFEI staff, and Water Board staff met in the absence of other RMP sectors. He noted that the Sources Pathways and Loadings Workgroup discussed the relative priority of dioxins last year and had decided to leave it at medium priority. He indicated that before the priority is changed he would like to have a thorough discussion with all involved parties. He also asked if this discussion was appropriate for the TRC or if it was more appropriate for the SC.

Mike Connor noted that relative to the standards, dioxins outweigh other issues in the Bay. He also noted that if the EPA takes any action it is most likely going to be to tighten the standards. The RMP is trying to identify what the data gaps are and get feedback on what data gaps to fill.

Bridgette DeShields agreed that there are many data gaps. She said that there is a need to develop a plan.

Tom Hall noted that 75 percent of the dioxin TEQ was due to dioxin-like PCBs, which have been left out of this analysis of gaps. Susan Klosterhaus noted that the fish reported were only for dioxins and that the contribution from PCBs had not been included.

Francois Rodigari noted that BACWA is writing a white paper to frame the issue and that the meeting with the Water Board was to get input for framing the issue. Barbara Baginska noted

that the data on dioxins are largely from the early 1990s and that she understood BACWA's need for more information in order to frame the issue.

Chris Sommers suggested that after the white paper is finished a meeting be held to discuss the prioritization of dioxins and possible next steps. Mike Connor noted that an important step will be making the Air Board – Water Board connection since the majority of dioxin sources are air.

### **ACTION ITEMS**

- Karen Taberski and Tom Mumley to discuss the priority of dioxin.
- Mike Connor to distribute the white paper to the TRC and convene a meeting to further discuss prioritization of dioxins.
- Francois Rodigari indicated that EBMUD can analyze for PCB 126 in sediment. This should be included in the 2008 contract.

### **7. Inclusion of PAHs in Status and Trends (Action)**

Meg Sedlak presented a proposal to include analysis of PAHs in water in 2008. The new sampling schedule includes analysis of organics in water every other year and 2008 is scheduled to be the first off year. Organics are still scheduled to be analyzed in sediment every year. Since the oil spill occurred earlier this year, it is possible that results will be different from historical trends.

Mike Kellogg asked if the signature of the oil is known. Karen Taberski indicated that the signature is known and Susan Klosterhaus indicated that although the compounds used to fingerprint the oil are different than the suite the RMP analyzes for, there is sufficient overlap to identify the spilled oil.

Meg Sedlak indicated that the \$17,000 for analysis of PAHs in water has been included as a line item in the 2008 budget.

Chris Sommers asked what the chances of successfully detecting the spilled oil are. Meg Sedlak indicated that the chances are low and that we do not expect to detect the oil.

Bridgette DeShields asked if the analysis for PAHs in water in 2008 would be in addition to or in place of analysis in 2009. Mike Connor suggested that we plan on analyzing for PAHs in 2008 instead of 2009 and revisit the issue of analysis in 2009 next year if the 2008 results are elevated.

Karen Taberski noted that the sampling will be later than she would have preferred, but that she would like to confirm that the spill signal is gone. Sediment concentrations are more important than water, but because concentrations are likely highly patchy, water is a valuable tool.

Meg Sedlak indicated that Rob Lawrence is in favor of including water column analysis in 2008.

Karen Taberski motioned and Francois Rodigari seconded to include the analysis of PAHs in water sampling in 2008 and to reconsider including analysis in 2009 once the 2008 results are available. The motion passed unanimously.

### **8. Toxicity Testing in Status and Trends (Action)**

Sarah Lowe presented the different options for toxicity testing in Status and Trends. Currently, the RMP uses whole sediment exposure amphipod survival and mussel embryo development elutriate testing. However, the Sediment Quality Objectives recommends using sediment–water interface exposure (SWI) instead of elutriate testing.

Karen Taberski noted that SWI was used for Bay Protection and she felt that SWI was the most relevant. She recommended adopting SWI and suggested that elutriate testing could also be done to better understand the differences. Bridgette DeShields agreed. She noted that there is already some overlapping data for SWI and elutriate testing. She asked if it was worth collecting additional comparison data. Chris Sommers indicated that he was in favor of including SWI testing. Mike Connor asked if TIEs could be done at sites with toxicity to further investigate causes of toxicity.

Sarah Lowe suggested doing metals analysis comparing the two methods (SWI and elutriate). Bridgette DeShields and Chris Sommers suggested that this would be more appropriate as a special study than as part of Status and Trends.

Chris Sommers motioned to switch from elutriate to SWI toxicity testing for Status and Trends and recommend that a special study on toxicity methods and TIE be developed. Karen Taberski seconded and the motion passed unanimously.

### **9. Pulse Update (Information)**

Jay Davis presented an update on the Pulse outline. He presented the outline to the SC and they supported both themed issues and stakeholder articles. The SC supported the idea of including an annual feature article focusing on a beneficial use of the Bay in the management section. In 2009 this article will be on shellfish harvesting. Chris Sommers suggested including information on exotics in either this article or in a side bar. Jay also indicated that he could include a side bar on navigational beneficial uses and the RMP Hg strategy.

Jay Davis said that he received feedback on Chris Sommers' trash article from Save the Bay. He said that he would like to include an update on trash as a side-bar article, to be developed with Save the Bay. Chris Sommers indicated that he could write an update on some of the on-going trash pilot studies.

Chris Sommers suggested adding a graph of changes in pesticide use. He suggested that Kelly Moran might be able to provide information for this graphic.

Karen Taberski asked for further clarification on the Richardson Bay side bar. She asked if the Richardson Bay spill would be set in the context of other spills. Jay Davis said that the spills may be covered in a newsletter article and that the Pulse would include a summary. Chris Sommers noted that in the space of a side bar article there would only be space to lay out the facts. Tom Hall suggested that the article differentiate between sewage spills and sanitary overflow.

### **ACTION ITEMS**

- Jay Davis to send Chris Sommers a copy of Save the Bay’s feedback on the trash article.

### **10. Data Management (Information)**

Cristina Grosso presented an overview of the data management process. The data management team has multiple checks to ensure high quality data. Francois Rodigari noted that the web query tool is very useful and much more user friendly than others. Goals for the future include setting up online data submittal for the laboratories rather than continuing to have data submitted to staff. The online data submittal tool will include tools that run the initial queries automatically so that labs receive the initial checks through the submittal tool. They will be required to fix errors before they can successfully submit their data.

Additional goals include the addition of sportfish data and other pilot and special studies’ data to the web query tool, revising the web interface, and including the AMR graphics (i.e., map of concentrations, box plots of concentrations by region, and cumulative distribution function graphs).

Cristina Grosso indicated that all 2007 water data and all sediment data except metals have been received.

### **ACTION ITEMS**

- Cristina Grosso to send Chris Sommers a copy of the data management timetable.

### **11. Small Fish (Information)**

Ben Greenfield presented an update on the Small Fish special study. He focused on the spatial design, not the fixed temporal or long-term sites. The spatial design is approximately 75 percent of the budget. This component of the study includes stratifying the edge of the Bay by areas that contain embayments those that do not. Source sites, which have been identified with input from the Water Board, include: creeks draining mercury mines, shallow-water POTW discharges, industrial areas with high total mercury, and creeks draining industrial areas.

Chris Sommers noted that how the samples are stratified is important. Ben Greenfield noted that results can be analyzed in other ways, too, after the fact, using ancillary data. He indicated that he has not yet decided if tributaries should be classified separately from embayed regions.

Chris Sommers asked what “other” meant in the sample stratification. Ben Greenfield indicated that these are areas that are neither wetlands or mercury sources areas. He noted that these areas may encompass other areas that are important to mercury concentrations.

The idea of including marine lakes (e.g., Aquatic Park in Berkeley) was discussed and it was suggested that this be pursued as a separate special study.

Richard Looker raised the question of where to sample creeks draining mercury mines. Jay Davis and Chris Sommers agreed that small fish sampling sites should be close to the Bay to reflect Bay foodwebs. It is possible that sampling for the isotope special study and Small Fish special study may need to be done separately (i.e., the isotope study may need samples farther

upstream closer to potential sources such as mines). Chris Sommers suggested that the Small Fish study not sample sites beyond the estuarine boundary.

Karen Taberski suggested that the CalFed sediment study sites (1999 includes approximately 100 sites) be included in addition to the Bay Protection Toxic Cleanup Program sites (approximately 15 sites with contaminant levels above 0.7 ppm).

#### **ACTION ITEMS**

- Ben Greenfield to send copy of sources pool to TRC once finalized.
- Ben Greenfield to find out if Holger Hintelman's DGTs can dry out without compromising analyses.

#### **12. Next Meeting**

The next TRC meeting will be Thursday, July 17<sup>th</sup>, 2008.



**ACTION ITEMS**

<b>ACTION</b>	<b>WHO</b>	<b>STATUS</b>
SC to develop a list of information needs based on RWQCB and RMP participants	Meg Sedlak	To be addressed as part of the RMP Master plan
Coordinate with RWQCB and US EPA (Patti Tenbrook) on conducting pyrethroid analysis in the Bay	Meg Sedlak	
Revised management questions sent out to the TRC	Jay Davis	
Draft RMP Master plan to be prepared for July meeting	Jay Davis	
Template of information needs sent out to RMP sectors. A schedule will be included for when comments are needed by.	Jay Davis	
Include Draft Do Not Cite or Quote on all presentations posted to web	Meg Sedlak	
Confirm priority status of dioxins	Karen Taberski and Tom Mumley	
Dioxin white paper sent to TRC and need to convene additional dioxin meetings	Mike Connor	
Save the Bay comments on trash article and data management timetable to Chris Sommers	Jay Davis / Cristina Grosso	
Small fish source pool sent to TRC and determine whether DGTs can dry out.	Ben Greenfield	Completed
Develop a special study idea or data integration task to look at PCB congener fingerprints in tributaries, bay and fish.	Jay Davis	