

7770 Pardee Lane, 2nd Floor • Oakland, CA 94621-1424 Office (510) 746-SFEI (7334) • Fax (510) 746-7300

RMP Technical Review Committee September 27th, 2011 10:00 AM to 3:00 PM

DRAFT AGENDA

7770 Pardee Lane, 1st floor Oakland, California

1.	Introductions and Approval of Agenda and Minutes, Review of Action	10:00
	Items (Attachment: Draft TRC Minutes)	Chair
2.	Information: Steering Committee Report (Attachment: Draft SC	10:15
	Minutes)	Meg Sedlak
3.	Action: Optimizing Status and Trends	10:25
	Based on meetings with stakeholders, RMP staff is recommending moving	Meg Sedlak
	to a biennial sampling of water and possible modifications to the annual	
	sediment sampling.	
	Desired Outcome: Approval of a recommendation for the SC on Status	
	and Trends.	
4.	Information: Dissolved Oxygen Profiles in San Francisco Bay	11:20
	As an outgrowth of the nutrient discussions, a request was made to evaluate	Don Yee
	the dissolved oxygen profiles and to present this information to the TRC.	
5.	Action: Nutrient Strategy and Proposal for 2012 (Attachment: Strategy	11:45
	and Proposal)	David Senn
	Considerable progress has been made developing a nutrient strategy and a	
	workplan for 2012. A proposal for 2012 will be presented.	
	Desired Outcome: Recommendation to the SC on 2012 nutrient work.	
	LUNCH BREAK	12:15
5.	Action: Nutrient Strategy (Continued)	12:30
6.	Action: Options for the Temporary USGS SSC Station (Attachment:	1:00 Dave
	Memo)	Schoellhammer
	The RMP funds continuous SSC monitoring by USGS at 6 stations in the	
	Bay. Five of these stations are fixed; the RMP has the opportunity to	
	provide input on the location of the temporary station. Possible options	
	will be explained; input from the TRC is desired.	
	Desired Outcome: Recommendation on which site to select.	

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7.	Information: Ambient Sediment Concentrations	1:30
	RMP staff, in consultation with Dr. Don Stevens of OSU, developed a	Rachel Allen
	method for identifying outliers and calculating ambient sediment	
	concentrations for the Bay. Ambient concentrations are used to evaluate	
	dredged materials and the need for additional testing or sediment	
	management.	
8.	Information: Aquatic Toxicity	1:50
	At the request of BACWA representatives, the RMP moved up the Aquatic	Meg Sedlak
	Toxicity sampling from 2012 to this year. A brief review of tests that the	
	RMP has conducted and results will be presented.	
9.	Discussion: Update on Pulse and Annual Meeting (Draft Pulse sent	2:10
	separately)	Jay Davis
	Discussion of comments on draft laid out version of the Pulse. The	
	Overview, Latest Monitoring Results, and Trends at a Glance haven't been	
	reviewed yet. A quick update on the Annual meeting will be given.	
	Desired Outcome: Receive comments on the draft Pulse.	
10.	Program Update (Attachment: Workgroup report)	2:40
		Meg Sedlak
11.	Plus Delta of the Meeting and Selection of Next Meeting date	2:55

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San Francisco Estuary Institute

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RMP Technical Review Committee Meeting

June 7th, 2011 San Francisco Estuary Institute First Floor Conference Room 7770 Pardee Lane, Oakland, CA 10:00 am – 3:00 pm DRAFT MINUTES

Meeting Participants

Bridgette DeShields (Arcadis (WSPA))
Eric Dunlavey (City of San Jose)
Tom Hall (EOA, Inc. (South Bay Dischargers))
Mike Kellogg (City and County of San Francisco)
Francois Rodigari (EBMUD)
Chris Sommers (BASMAA (EOA, Inc.))
Karen Taberski (SFB RWQCB)

Naomi Feger (SFB RWQCB) Ian Wren (Baykeeper)

Rachel Allen (SFEI) Ben Greenfield (SFEI) Jay Davis (SFEI) Susan Klosterhaus (SFEI) Lester McKee (SFEI) Aroon Melwani (SFEI) Meg Sedlak (SFEI)

1) Introduction, Approval of Minutes, and Review of Action Items

Meg Sedlak reviewed the action items from previous TRC meetings. Karen Taberski asked that the SFEI Quarterly report be distributed to the whole TRC. The program review will be discussed at the next Steering Committee (SC) meeting. Jay Davis asked that the TRC representatives discuss their ideas for program review of the RMP with their SC representatives beforehand. A contingency plan for sampling at Mallard Island at a high flow event was developed after the last TRC meeting, but was not circulated due to current low flow volumes. Lester McKee noted that sampling will occur only at flow above 375,000 cfs, which reflects a Yolo Bypass event. Only one such event has been sampled to date (during the floods of 2006). Meg Sedlak raised the issue of sampling a catastrophic event to the Bay, such as flooding due to the heavy snowfall that could cause levy failure, and asked what the RMP response to such an event should be. Jay Davis suggested that whether the RMP wants to monitor after a catastrophic event, and what this plan should look like, should be discussed in further detail at the next TRC meeting. Chris Sommers suggested that the plan also include collaborators from beyond the Bay area, in case the event (such as an earthquake) also has repercussions for those who

would also be doing the monitoring. He added that contingency plans from other organizations such as the USACE would be a good starting point.

Chris Sommers indicated that the joint North/South stormwater meeting is still being planned, but that it is more appropriate to hold this as a meeting between BASMAA and the Southern California Stormwater Monitoring Coalition rather than the RMP and SCCWRP, although the RMP and SCCWRP will continue to be involved. He will update the TRC as the plans progress.

Meg Sedlak will send out the power analysis on the water and sediment sampling plans from 2006 to the TRC. Chris Sommers noted that a review of the sampling plan for Mallard Island is needed. This will be addressed at the next SPLWG meeting in October.

Meg Sedlak informed the TRC that SFEI will be moving locations to Richmond in October or November of 2011. During this time period, RMP meetings may be held at alternative locations such as the Water Board.

Mike Kellogg motioned to approve the minutes from the March 2011 TRC meeting. Karen Taberski seconded the motion, and the minutes were approved.

Action Items:

- Send out the SFEI quarterly report to the TRC.
- Discuss developing a plan for monitoring after a catastrophic event to the Bay.
- Send out the S&T power analysis to the TRC.
- Discuss the management questions and frequency of sampling at Mallard Island at the next SPLWG meeting.

2) Steering Committee Report

Meg Sedlak informed the TRC that Kevin Buchan, the current head of the SC, will be leaving, and the new refineries representative will be Brian Hubinger of Chevron . In August, the SC will elect a new chair.

3) Special Study (SS) Proposals for 2012

Jay Davis indicated that there is not enough SS funding for all of the proposed studies in 2012. He reviewed the proposals, noting that of the seven proposals, only #3, on PFCs in the food web, was not solicited by the SC Master Plan. There are three items that do not have developed proposals. Instead, the TRC is asked to allocate funding to these fields, with the caveat that it will be granted only if reasonable proposals are developed by early 2012

The SC requested a synthesis on sediment quality objective (SQO) drivers. Jay Davis noted that the scope of this request is unclear, and suggested that it be postponed until more funding is available. He asked the TRC if this work is a high priority for regulatory

actions. Naomi Feger indicated that the state is in the middle of the 303(d) listing cycle, and the Water Board would like to be able to influence the next listing cycle in 2 years with information about SQOs. The timeline for information needed to inform this process still needs to be laid out. Currently, SQO is not included in the guidance for 303(d) listing.

Jay Davis noted that a related study, the "National Coastal Condition Assessment" funded by the EPA, may accomplish the goal of summarizing knowledge on SQO drivers to date. The project will evaluate sediment data in estuaries across the West Coast. Because SFEI is a partner in this project, we can suggest that the work also include SQO data. A report from this project is expected in summer 2012.

Chris Sommers and Bridgette DeShields indicated that the SQO study is not required in 2012, but will be a priority for 2013.

Meg Sedlak noted that Chris Vulpe and Steve Bay will update the EEWG on their progress with the Molecular TIE project in October. At that point the EEWG will be able to give the RMP a recommendation for a plan of action with regards to stressor identification.

Jay Davis informed the TRC that the CFWG did not recommend a specific plan for modeling, and instead asked for a tactical plan with more details. Report authors are still sorting through feedback on the Margins Conceptual Model and the Bioaccumulation Conceptual Model. Jay recommends that the \$100,000 be allocated for modeling in 2012, with the confidence that the modeling team and the CFWG will come up with a workplan for 2012. The strategy and workplan for nutrients in 2012 is still in development. The workshop and meeting on June 29th and 30th will form the foundation of the nutrient strategy.

RMP staff gave presentations on the proposed special studies.

1. Dioxins (Susan Klosterhaus) - \$119,470

Susan Klosterhaus outlined the plan for sampling and analysis of dioxins in 2012. The wet season sediment data from 2010 are currently under QA review; once these data are available, Susan will update the dioxin strategy team and solicit a decision on whether to analyze sediment data from the 2011 dry season, the 2012 wet season, or a combination of both. Susan noted that the budget for sampling at 2 urban tributaries has decreased because AXYS has reduced the sample volume from 8 liters to 4 liters, which reduces the sampling and shipping costs. Based on the results of the tributary water samples processed to date, AXYS and Don Yee estimate that this reduction of the sample size will result in a 15% decrease in the overall number of congener detections (from 90% to about 75%).

Naomi Feger asked that the TRC be informed of the date for the dioxin strategy meeting.

Chris Sommers noted that the Small Tributaries Loading Strategy (STLS) proposes two separate sampling designs – bottom of the watershed monitoring and sampling of event mean concentrations. He suggested that the dioxin sampling be aligned with the approach in the STLS. He proposed reallocating the funding for sampling two urban tributaries to a split between the two approaches. Jay Davis suggested that the STLS team advise the plan for dioxin monitoring at the June 17th STLS meeting.

2. CEC synthesis – Year 2 (Susan Klosterhaus) - \$15,000

Work on the first year of this study will begin this summer. The report on recommended CECs to monitor from the state advisory panel on discharges to coastal ecosystems has been delayed till early 2012, which may delay slightly the progress of the CEC synthesis report.

3. PFCs in SF Bay Biota (Meg Sedlak) - \$87,000

Meg Sedlak noted that this study came out of the Emerging Contaminants (ECWG) meeting in March. Naomi Feger indicated that PFCs remain a concern among contaminants of emerging concern, but the data supporting this concern are rather old. The study is designed to confirm the levels that are being detected in biota and investigate the food chain leading to high concentrations in seals and birds.

4. Spreadsheet model – Year 3 (Lester McKee) - \$20,000

Lester McKee reviewed the data from the tributary loads monitoring in recent years, including the 2010-2011 reconnaissance study.

The spreadsheet model is designed to predict annual flow volumes, and has recently become more precise and more accurate. The year 3 tasks will include incorporation of priority POC source areas and application of EMC data.

Chris Sommers and Lester McKee indicated that this type of spreadsheet model is standard procedure for tributary loads modeling, and has been well implemented in Southern California.

5. Stormwater loads monitoring (Lester McKee) - \$348,000

In 2012, the RMP is scheduled to monitor 2 watersheds over 4 storms. The MRP calls for 2 other watersheds to be monitored by BASMAA in 2012. It is probable that the Guadalupe River and Marsh Creek will be monitored, along with two others to be identified shortly. The budget is still in flux, as details such as like whether BASMAA or the RMP will pay for data management have yet to be sorted out. In addition, if the watersheds do not have a USGS hydrology monitoring station in place already, the group will need to collaborate with USGS, which may cost between \$30,000 and \$70,000 to set up and another \$15,000 to operate annually.

Chris Sommers noted that the \$30,000 allocated to reporting will not be needed because a big report is planned after year 2 or 3 of monitoring, rather than year 1. Lester McKee indicated that these funds would go towards data interpretation for presentation and possible course correction in the sample design. Chris Sommers therefore asked that the proposal reflect that the task 6 funds are for "interim analysis of the data" rather than reporting.

6. EMC Development (Lester McKee) - \$80,000

Sampling at source areas to develop land use specific event mean concentrations (EMC) would provide input to the spreadsheet model. If the STLS team approves of this project at the June 17th meeting, the details of the study will be ironed out over the next 3 months, with sampling to begin in early 2012. Alternatively, the project could be delayed until 2013.

7. Hotspot Followup (Meg Sedlak) - \$30,00

Meg Sedlak is taking on the two-year sediment hotspots SQO follow-up study. The RMP is planning on scheduling meetings to select the sampling sites in June and July, and collect samples during the sediment cruise in August. In year 2, the study will finish up with data analysis and reporting.

Chris Sommers asked if SFEI is still looking for new staff in the field of benthic ecology. Jay Davis indicated that the organizations priorities have shifted since the job announcement was posted, but that if the TRC has recommendations they should pass them along. Karen Taberski asked if this project should be passed to SCCWRP while SFEI lacks a dedicated benthic ecologist, which Jay Davis indicated was an option for this project.

Discussion of Special Studies

Meg Sedlak indicated that she is reviewing the design of the Status and Trends (S&T) component of the RMP, and that the RMP may be able to save about \$200,000 by eliminating water chemistry every other year. The current status of this idea will be discussed further, in item 4. For the purpose of approval of special studies, the TRC should identify two tiers of studies: studies to receive funding from the SS pool, and studies that are contingent upon freeing up \$200,000 from the reduction of S&T.

The group agreed not to fund the SQO synthesis study. Naomi Feger and Chris Sommers suggested that the nutrients and forecasting earmarks should be funded in tier 2, that is, they will be funded contingent upon freeing up funding from savings in the S&T component and development of a workplan, which the group agreed to. At the September TRC meeting, the group will make a decision regarding the reduction of S&T and will have further details on the nutrients and forecasting workplans.

This left the 7 proposed studies with complete, guaranteed funding, except for a \$20,000 shortfall. Jay Davis indicated that the TRC should balance the budget before sending a recommendation to the SC. The group decided to reduce the reporting budget (task 6) in the Stormwater Loads Monitoring study by \$20,000, and requested that Lester McKee indicate at the next meeting which tasks will consequently not be performed.

The recommendation from the TRC to the SC was to fund the seven proposed studies with the allocated SS funds, reducing the reporting task from the loads monitoring study by \$20,000 to balance the budget. The nutrients and forecasting work will be funded contingent upon available funds from finding efficiencies in S&T and further definition of the work.

Action Items:

- Select a date for Dioxin Strategy meeting and notify the TRC.
- Solicit input from the Dioxin Strategy Team on whether to analyze wet season or dry season sediments.
- Solicit input from STLS on how to conduct dioxin monitoring (either at base of watershed for loads or higher up in watershed to get EMC information).
- Adjust the description of task 6 in the Stormwater Loads Monitoring proposal to reflect that the funds are for "interim analysis of the data" rather than reporting.

4) Optimizing Status and Trends

Meg Sedlak informed the TRC about the ongoing process of reviewing the Status and Trends program and consulting with the RMP stakeholders to evaluate their information needs. She will provide a full recommendation to the TRC in the fall.

After consulting with the Water Board, Meg Sedlak determined that there is good potential to reduce water chemistry monitoring with "no regrets". The power analysis conducted in 2006 indicated that the power is very strong for detecting trends in PCBs and Hg. However, water is not typically used to indicate trends, so this power is irrelevant. Therefore, a status update every other year would likely be sufficient to fulfill water chemistry data requirements. BACWA agreed with the Water Board, but they wanted to ensure that they would still be in compliance with the Basin Plan. The BACWA/ TRC representative will set up a meeting to clarify that this modification would not have regulatory consequences. Chris Sommers, as the BASMAA representative, indicated that the stormwater agencies do not have any need for annual water quality information. The Bay Planning Coalition indicated that annual sediment data is useful, so further discussions will be needed before deciding whether to reduce sediment monitoring. Naomi Feger suggested including John Coleman from the Bay Planning Coalition in the information needs discussions with the USACE. She also asked that the USACE articulate their information needs for special studies. This will help the RMP know how the monitoring information will be used. Naomi Feger noted that recently the RMP helped with a discussion between NOAA and the EPA regarding in bay disposal of dredged sediments. She asked for a presentation at the next TRC meeting.

Action Items:

- Meg Sedlak will share the power analyses with the TRC.
- The BACWA/TRC representative to meet with Water Board/ BACWA director to assure that there will not be compliance issues if the RMP moves to biennial sampling
- Include the Bay Planning Coalition in the discussion with the USACE on the possible reduction of the RMP status and trends monitoring. Send John Coleman the results of the power analysis beforehand. Also ask the USACE if they have needs for RMP special studies related to dredging.
- Present results of the Ambient Sediment Conditions task (used in discussion with NOAA/ EPA regarding essential fish habitat) at the next TRC meeting.

5) Small Fish Monitoring

Ben Greenfield informed the TRC that he will be leaving SFEI in September to pursue a PhD in public health at UC Berkeley.

He presented the ongoing analyses of the data from the six year study of small fish. All together, these data compose a very rich data set. He focused on spatial patterns and seasonal trends. The data indicate that mercury uptake in small fish is highest in the lower south bay. Small fish were sampled at a variety of site types, defined by mercury source and elevated sediment concentrations. Small fish concentrations do not generally correlate with site type, however. The next set of analyses will compare sediment concentrations with fish concentrations, where sediment mercury data exists in the margins.

Data from the diffusive gradient thin-film (DGT) devices deployed in 2009 at the small fish sampling locations did not correlate with the small fish data, suggesting that DGTs are indicating different methylmercury trends from small fish. Chris Sommers asked that this discussion of the comparability of DGTs and small fish be included in the write-up. It is possible that DGTs reflect methylmercury in the water column, while small fish respond more to bioavailable mercury in the sediment. However, the DGT data did indicate significant differences across site type.

Ben Greenfield also displayed the spatial trend in small fish by plotting the distance (in river miles) from the sample location to the mouth of the Guadalupe River. Chris Sommers noted that while this measure is designed to indicate the gradient from south to north, by using the Guadalupe River as the endpoint, it implies that the mine is the mercury source, while the higher concentrations in the south may be more related to the high methyl mercury productivity and longer residence time of water in the Lower South Bay.

Ben Greenfield discussed seasonal trends in small fish sampled from the Martin Luther King Regional Shoreline, which seem to show a peak in arrow gobies during the late summer, and a peak in topsmelt during the late winter.

The small fish study included PCB analyses in 2010, and the results show that topsmelt have higher PCB concentrations than shiner surfperch, the highest of the sportfish. Jay Davis suggested that this may be due to their residence in the margins, where PCB concentrations are expected to be higher. Spatial patterns seem to indicate that PCB are highest in small fish around the central bay. A preliminary analysis of congeners suggests that sites have different profiles, reflecting different Aroclor mixtures.

Recommendations for the future include continued annual mercury monitoring as part of Status and Trends, similar to the bivalve monitoring. The mercury and PCB small fish results will be written up as chapters in a summary of the multi-year small fish monitoring.

6) CTAG-TRC Meeting

Meg Sedlak updated the TRC on the CTAG-TRC meeting, which occurred in Southern California on May 19th. Of the TRC members, only Mike Kellogg and Francois Rodigari's alternate Saskia van Bergen participated. Because of the effort required to put these meetings together, Meg Sedlak asked that the group discuss whether these meetings should continue in the future, and if so, how to ensure that there is enough participation. She noted that it was still a worthwhile interaction for SFEI staff, and in particular the organizations identified their respective areas of expertise in differing approaches to similar questions.

Meg Sedlak noted that SCCWRP is also in the process of producing fact sheets, which are intended for their commissioners. They address topics such as emerging contaminants on a very general level. Because of the disparate target audiences, it was decided not to produce joint SFEI/SCCWRP fact sheets, but rather to help each other in the development and use each as needed. SCCWRP is planning to release one fact sheet a month for the next 13 months.

For future meetings, the CTAG was interested in discussing modeling, historical ecology, data management, nutrients, and diagnostics such as barcoding. Because they don't have the outside technical expertise available through the RMP workgroups, they were also interested in including the scientific advisory panels as needed.

Chris Sommers asked what the expected outcome of the joint meeting is, and that this be elucidated before deciding to hold another one. Francois Rodigari asked that any future meetings be clearer about the goal for each day, and have more input from the TRC in the development of the agenda. Chris Sommers noted that while the interaction is beneficial for SFEI staff, there is a difference between SFEI and the RMP. He does not think that the TRC should fill the role of technical advisors for SFEI as a whole, and would therefore not be interested in a meeting on historical ecology or data management. If that

were the focus, he would ask RMP staff to attend and report back to the TRC. Bridgette DeShields suggested that 2012 would be an appropriate time to hold a joint meeting on modeling and nutrients, although the modeling meeting could be between the CFWG and the SCCWRP modeling team, rather than the TRC and CTAG. Naomi Feger suggested that SFEI could use a technical advisory committee.

Francois Rodigari noted that because there was no headcount at the previous TRC meeting, most of the participants assumed that the others would go. He suggested getting a commitment from the TRC reps. If a meeting were agreed to, Meg Sedlak should ask for RSVPs during the preparation. Mike Kellogg noted that he found the meeting very useful, and that he was proud to be representing the TRC.

Action Items:

• Discuss the goals of a potential CTAG-TRC meeting at the next TRC meeting. Develop an agenda and consider whether a meeting is warranted.

7) Update on the Pulse and Annual Meeting

Jay Davis thanked the group for their input on the Pulse articles that have been released so far, and indicated that he would send out the articles on the report card and birds the day after the meeting. Francois Rodigari indicated that he would review the report card article.

Jay Davis noted that Jim Cloern is not available to give a keynote speech at the Annual Meeting, but that Dan Schlenk has committed to speaking. He proposed a line-up of speakers for the remainder of the meeting. Karen Taberski indicated that having overlapping speakers at the State of the Estuary conference and the RMP Annual Meeting would be acceptable because they attract different audiences.

Chris Sommers asked if the nutrients strategy would be ready for a talk at the annual meeting, and suggested that the topic be the Numeric Nutrients Endpoint (NNE) rather than the strategy. Naomi Feger could present the regulatory side of the NNE, with a follow up talk by David Senn or Mike Connor on the status of the nutrient strategy.

Chris Sommers asked if the water quality report card should be presented through the RMP, as it was not funded by the RMP and could provide mixed messages. Jay Davis indicated that the Pulse and the Annual Meeting are more broadly focused on the Bay and water quality. Francois Rodigari indicated that the report card and "Safe to Swim" talks would be of interest to dischargers, and therefore appropriate for the Annual Meeting. Chris Sommers was concerned that the "Safe to Swim" talk will open a discussion that the meeting will not have time to address. Jay Davis indicated that he would discuss these reservations with the SC when deciding on the final agenda for the meeting.

Action Items:

• Discuss the TRC's concerns about having a talk on "Safe to Swim" at the RMP Annual Meeting with the SC.

8) Plus/Delta, Selection of next meeting Date

The next meeting will be help on Tuesday, September 27th. Meg Sedlak will send out the workgroup summary electronically.

Action Items: TRC Meetings (updated 7/29/2011)

#	Action Items – June 2011	Who?	When?	Status
1	Send out the SFEI quarterly report to the TRC.	Meg	6/8/2011	Completed
2	Discuss developing a plan for monitoring after a catastrophic event to the Bay	Meg	September 2011 TRC meeting	
3	Send out the S&T power analysis to the TRC.	Rachel		
4	Discuss the management questions and frequency of sampling at Mallard Island at the next SPLWG meeting.		October 2011 SPLWG meeting	Scheduled for October 25th SPLWG meeting
5	Select a date for Dioxin Strategy meeting and notify the TRC, and solicit input from the Dioxin Strategy Team on whether to analyze wet season or dry season sediments.	Susan		Scheduled for October 26th (day after SPLWG meeting)
6	Solicit input from STLS on future dioxin monitoring in urban tributaries (either at base of watershed for loads or higher up in watershed to get EMC information)	Lester	June 17th 2011, if possible	
7	Adjust the description of task 6 in the Stormwater Loads Monitoring proposal to reflect that the funds are for "interim analysis of the data" rather than reporting.	Lester		
8	The BACWA/TRC representative to meet with Water Board/ BACWA director to clarify that there will not be compliance issues when calculating the three year moving average copper, nickel, and cyanide trigger values if the RMP moves to biennial sampling	Francois	6/9/2011	Amy Chastain feels that a reduction in water monitoring will not be a problem from the BACWA point of view. Consequently we have the go ahead from BACWA to reduce monitoring.
9	Include the Bay Planning Coalition in the discussion with the USACE on the possible reduction of the RMP status and trends monitoring. Send John Coleman the results of the power analysis beforehand.	Meg		BPC has been invited to July 21st meeting with USACE/ DMMO members and power analysis has been sent.

#	Action Items – June 2011	Who?	When?	Status
10	Present results of the Ambient Sediment Conditions task (used in discussion with NOAA/ EPA regarding essential fish habitat) at the next TRC meeting.	Rachel	September 2011 TRC meeting	On agenda for September TRC meeting
11	Discuss the goals of a potential CTAG- TRC meeting at the next TRC meeting. Develop an agenda and consider whether a meeting is warranted.	Meg	September 2011 TRC meeting	
12	Discuss the TRC's concerns about having a talk on "Safe to Swim" at the RMP Annual Meeting with the SC.	Jay	August 2011 SC meeting	

#	Action Items - March 2011	Who?	When?	Status
2	Determine a distribution strategy for the Triclosan fact sheet			On agenda for the August SC meeting
5	Standardize the format of RMP proposals	Meg	Next round of proposals	
9	TRC subcommittee to meet to develop a Status and Trends strategy, including a decision tree	Meg		Individual meetings have been held with BACWA, BASMAA and Water Board. Will meet with USACE/ Bay Planning and Refineries in July.

#	Action Items – September 2010	Who?	When?	Status
	Develop a 2013RMP proposal for incorporating mercury into SQO	Ben		To be addressed at October EEWG
	indirect effect models			

#	Action Items – June 2010	Who?	When?	Status
	Chris Sommers and Ken Schiff (SCCWRP) will work together to plan a joint north-south stormwater meeting in the next 6 months.	Chris	Tentatively set for June 2011	On hold per BASMAA request
	Review existing information on shellfish, and consider designing a comprehensive shellfish survey.	Meg		To be addressed as part of Master Planning in 2012

RMP Water Qual represented	MEMBER	Affiliation	2009			2010			2011					
			1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
POTWs	Francois Rodigari	EBMUD	P	P	P	P	P	(2)	P	P	P	P		
POTWs	Rod Miller	SF PUC	X	P	P	X	X	X	P	X	X	X		
South Bay Dischargers	Tom Hall	EOA, Inc.	P	P	P	P	P	P	P	P	P	P		
CCSF	Mike Kellogg	City and County of San Francisco	P	P	X	P	P	P	P	P	P	P		
City of San Jose	Eric Dunlavey	City of San Jose	P	X	P	P	P	P	P	P	P	P		
Refineries	Bridgette DeShields	Arcadis/ WSPA	P	P	P	P	P	P	P	P	P	P		
Industry	Dave Allen	USS POSCO	X	X	X	X	X	X	X	X	X	X		
Stormwater	Chris Sommers	BASMAA (EOA, Inc.)	P	P	P	P	P	P	X	P	P	P		
Dredgers	John Prall	Port of Oakland	P	P	X	P	P	X	X	X	X	X		
Corps of Eng.	Rob Lawrence	Army Corps of Engineers	X	X	X	X	X	X	X	X	X	X		
SF- RWQCB	Karen Taberski	SF- RWQCB	P	P	P	P	P	P	P	P	P	P		
US-EPA IX	Luisa Valiela	US EPA	X	С	X	С	P	X	С	С	P	X		

Notes:

1. Richard Looker substituted for Karen Taberski	X = not present	P = present
2. Saskia van Bergen substituted for Francois Rodigari		C = call-in

San Francisco Estuary Institute

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RMP Steering Committee Meeting

August 11th, 2011 San Francisco Estuary Institute Second Floor Conference Room 7770 Pardee Lane, Oakland, CA DRAFT MINUTES

Meeting Participants

Kevin Buchan, Western States Petroleum Association Amy Chastain, BACWA John Coleman, Bay Planning Coalition Brian Hubinger, Chevron Richmond Refinery Rob Lawrence, US Army Corps of Engineers Adam Olivieri, BASMAA/EOA Trish Mulvey, SFEI Board Tom Mumley, SFRWQCB Karin North, City of Palo Alto Kirsten Struve, City of San Jose

Rachel Allen, SFEI
Jay Davis, SFEI
Rainer Hoenicke, SFEI
Jen Hunt, SFEI
Lawrence Leung, SFEI
Lester McKee, SFEI
Meg Sedlak, SFEI

1) Review of Action Items and Steering Committee Minutes

Meg Sedlak reviewed the action items from the previous Steering Committee (SC) meetings. Amy Chastain noted that she had a discussion with Trish Mulvey regarding the potential use of SEP funding to support RMP special studies. Meg Sedlak will work with Amy Chastain to put together a list of RMP studies that would be good candidates for this funding source. Tom Mumley will commence discussions with SFEP, however he noted that this pathway is not worth a lot of effort, because there is only limited funding available. The SC will discuss this pathway as an agenda item (rather than an action item) at the next SC meeting.

Amy Chastain asked about the web tool for uploading POTW metals loading data. Tom Mumley noted that the agencies are moving towards an electronic reporting system, and that it may be more worthwhile to work with the developers of this tool to enable the RMP to pull data off of it, rather than creating a tool specifically for the RMP.

Kevin Buchan made a revision to the minutes from the April 2011 SC meeting. *This correction has been made, and the minutes posted to the RMP website.* Tom Mumley motioned to approve the minutes, Karin North seconded, and the minutes were approved.

Action Items:

• Discuss using SEP funding for specific RMP Special Studies, including a prioritized list of potential special studies.

2) Committee Member Updates

There were no committee member updates.

3) Technical Review Committee Meeting Summary

Meg Sedlak noted that at the June Technical Review Committee (TRC) meeting, the TRC discussed the utility of continuing the annual joint RMP TRC and Southern California Coastal Water Research Project (SCCWRP) Commission's Technical Advisory Group meetings. The most recent meeting, in May 2011, was poorly attended by the TRC in part due to scheduling conflicts and in part due to a lack of interest in this year's topics. Meg Sedlak stated that SFEI staff find the interactions beneficial, and asked if the forum is still useful for the RMP, either for the TRC or the SC. Kevin Buchan noted that it is generally a good idea for SFEI and SCCWRP to interact, but it is unclear if it is still beneficial to the RMP. Tom Mumley noted that meetings that involve larger groups than the RMP have spun off from this interaction, including the stormwater meeting between BASMAA and SCCWRP. Adam Olivieri suggested discussing the pros and cons of this meeting as well as the benefits to SFEI and the RMP in more detail at the Master Planning meeting.

Action Items:

• Discuss the pros and cons of continuing to hold joint TRC/ CTAG meetings at the Master Planning meeting. Elaborate on the SFEI interest in the meeting with respect to the RMP interest in it. Evaluate whether this interaction should be undertaken by SFEI.

4) Budget Status

Lawrence Leung stated that the 2011 RMP budget was on track, with 98% of the participant fees received and interest revenue on track. He noted that some funding has been drawn from the reserve in 2011, including support for Dr. Craig Jones of Sea Engineering to assist with the preparation of the Margins Conceptual Model. In addition,

he noted that there was a request from the reserve on today's agenda for \$25,000 for coordination support for the Small Tributaries Loading Strategy (STLS). Lawrence indicated that 94% of the funds allocated to labor from the 2010 budget have been spent, with the remaining tasks expected to be completed in the 3rd quarter of 2011. All contracts from 2010 have been written. Of the 2009 subcontractor fees, about 94% have been billed. Paradise Cay continues to pay their invoice balance with sporadic checks. Lawrence indicated that the books for 2004 and 2008 are now closed (i.e., all subcontracts, direct costs, and labor have been paid).

5) Request for Reserve Funding for Continued 2011 STLS Activities

Meg Sedlak reminded the SC that \$16,000 had been set aside for coordination of STLS activities in 2011. However, the scope of work has been larger than anticipated and the available funds have been spent, with a substantial amount of work that needs to be completed in the remainder of the year. She requested that the SC approve \$25,000 for the remainder of this work in 2011, and she anticipated that lower levels of funding would be required in future years as this year's effort is part of a planning effort for three years..

Tom Mumley suggested that while it is possible that the workload will decrease in future years, because the projects are still being designed, it is difficult to project the hours and effort that will be required in the future. Lester McKee reiterated the intent of planning, noting that with \$1.2 million being spent on STLS and planning occurring for the next three years of effort, there is great interest in planning correctly up front, in order to assure that the programs are well coordinated, efficient, and technically sound.

Meg Sedlak noted that the 2012 STLS budget has allocated \$20,000 for these activities. The TRC, at its June 2011 meeting, asked the project to decrease the reporting budget by \$20,000, but project staff require this funding for interim reporting and communications. The funding level for the project has been decreased by \$20,000 thanks to assistance from Alameda County with equipment purchases.

Kirsten Struve noted that based on previous discussions, BACWA agencies may be concerned about allocating more funding to stormwater monitoring. However, Karin North pointed out that the additional data will show the loading contributions of sources other than wastewater, which will be of benefit to stormwater and wastewater permit holders alike.

The SC unanimously approved the request for additional funding.

6) Approval of Special Studies for 2012

Meg Sedlak and Jay Davis informed the SC that the TRC recommended approval of the proposed special studies, and approval of nutrients and modeling work contingent upon further development of studies in these areas and finding funding from savings in the Status and Trends (S&T) program, the reserve, or other funding sources.

Jay Davis noted that the Nutrients Strategy has been making progress this summer, with a workshop in June and a recent meeting between Naomi Feger, Martha Sutula, and David Senn, in which they drafted a strawman strategy document. Another Nutrient Strategy meeting is set for September 15th. Based on the discussions so far, Jay anticipates that the recommended studies for 2012, coming out of the Nutrients Strategy, will focus on a synthesis of existing information. To date, the water quality work that includes some basic nutrient indicators has been partially funded by the RMP (\$110,000 from the S&T funds), with the remainder of the funds coming from USGS. Jim Cloern is doubtful that the funding will continue after his retirement in a few years, so the RMP plans on ramping up funding for nutrients work (\$100,000 in 2012, \$200,000 in 2013, and \$300,000 in 2014), and working with partners to fund a monitoring program.

The Contaminant Fate Workgroup met in May of 2011, and did not recommend any studies at that point. Jay Davis plans to convene the modeling team during August in order to develop plans for work in 2012. He noted that in the future, the Modeling Strategy and the Nutrients Strategy will need to coordinate and overlap their information needs and goals. Currently, the Margins Conceptual Model and the Bioaccumulation Conceptual Model reports are being finalized. It is currently unclear where the modeling work will head in 2012, but Jay anticipates developing proposals for modeling as well as nutrients work. Amy Chastain indicated that she is optimistic about the possibilities of finding supplementary funding, and Rainer Hoenicke confirmed that the RMP would not be the only entity supporting the nutrients work.

Meg Sedlak clarified that the TRC will consider the revised S&T strategy, including potential cost savings, at the September TRC meeting, and then send a recommendation to the SC at the Oct/Nov meeting. Any available funds from these revisions can be applied to Nutrients and Modeling work.

Amy Chastain asked how the Steering Committee typically decides whether to fund work from the reserve. Tom Mumley indicated that the primary driver is urgent need – that the reserve funding is available for responding to unforeseen requests or opportunities, and that he would be reluctant to fund a long-term effort, such as Nutrients work, from the reserve. He indicated that there was likely to be a number of program needs from the emerging contaminant, mercury and PCB syntheses which will be developed this year.

Amy Chastain noted that reserve funding could help bridge a temporal gap between work needed now and savings from S&T that will be available in 2012, without diminishing the reserve below the target of \$200,000. Kevin Buchan asked that the S&T trends evaluation be based on what elements should be incorporated in monitoring, rather than focused on cutting to make up for a budget shortfall. Adam Olivieri asked that the S&T strategy be discussed at the fall SC meeting.

Tom Mumley made a motion to accept the recommendation by the TRC. He noted that the Special Studies funding decisions have been streamlined this year thanks to the

planning efforts. Rob Lawrence seconded the motion, and the Special Studies for 2012 were approved.

Action Items

• Discuss the updated S&T strategy at the Master Planning meeting.

7) Discussion of New SC Chair

Meg Sedlak asked for nominations for the new chair (Kevin Buchan will resign as chair at the end of 2012). The election will occur at the next SC meeting.

Karin North nominated Adam Olivieri and Tom Mumley.

Meg Sedlak noted that SC members can continue to nominate candidates via email, and she will distribute the list of nominees prior to the next SC meeting.

8) Program Review, Coordination with SFEI Board

Jay Davis informed the SC that the SFEI Board has requested that the RMP consider the need for a Program Review. Currently, \$125,000 has been set aside (ie. not included in the reserve) for this purpose. Ultimately, he asked the SC to consider how the RMP and SFEI planning processes should be coordinated. A memo was distributed outlining three options for program review, (1) a broad based program review bringing in external reviewers, (2) an external review focused on specific areas of the program, and (3) ongoing internal and external review and modifications.

Adam Olivieri approved of the 3rd option, as the program seems to function quite well. He suggested that the master planning team identify when the next broad external review should take place.

Trish Mulvey noted that some RMP documentation specifies a commitment to a 5 year review process, and noted that an external review has not occurred since 2003. She suggested that with the SFEI and ASC strategic planning efforts ongoing, now would be an ideal time to also conduct a review of the RMP, being mindful of the "moving parts" within SFEI and the ASC. She is interested in a how a review of the RMP can benefit the Bay. Meg Sedlak clarified that she was unaware of a memorandum requiring a 5-year review, so no documentation needs to be changed if the SC decides not to perform a review at this time.

Tom Mumley highlighted the benefits from the previous RMP program reviews. He considered the first review (in 1997) highly productive, as it increased the integrity of the program and pushed the program drivers from characterization to management questions. The RMP received recommendations on how to improve the program, including changing the sampling design. The second review (2003) was less productive, as it focused on the details in the program rather than providing confirmation or suggestions on the overall structure and focus. It primarily recommended doing more effects work.

Adam Olivieri noted that external committees exist for reviewing specific components of the program, such as Modeling. Rainer Hoenicke noted that the second review also served to validate the work done after the first review.

Trish Mulvey suggested that the lessons learned from monitoring of the Chesapeake Bay could be helpful in directing the RMP review. She thinks the RMP review could be focused on the larger picture of how the world is changing, and if the program is looking at the right things for the right reasons. What management actions will be taken as a result of RMP work? Will we make the Bay more fishable, swimmable? What would be lost by dropping components of S&T? What difference does the work conducted by the RMP make?

Tom Mumley noted that a number of these questions are being addressed, and that the Master Planning effort can consider if there are things that we should be doing that are not being done. He indicated that it was the role of the Water Board to translate the scientific findings of the RMP into management actions which would improve Bay water quality (e.g., making the Bay more fishable, swimmable). He also stated that he was hard pressed to think of anything critical that the program was missing. He stated that the purpose of the Master Planning meeting is to review the priority questions and information needs. He recommended that the Master Planning team consider if there is a need for an external review now, and discuss when to reevaluate this question in the future. The meeting will also evaluate whether to continue to reserve the \$125,000 for a future review or reallocate these funds.

Meg Sedlak noted that the program receives external review on an on-going basis through the workgroups. Expert panel members review special studies and program elements to ensure the rigor of the science. As an example, Meg stated Walter Boynton is very interested in participating in the nutrients strategy, and the RMP will be able to benefit from lessons learned in the Chesapeake via this interaction.

Adam Olivieri suggested that Rainer Hoenicke take the Program Review memo to the SFEI board, and explain that the SC is recommending option 3, with further discussion of needs and funding at the Master Planning meeting.

Action Items

- Evaluate whether the \$125K set aside for program review should be released and reallocated.
- Discuss Program Review at the Master Planning meeting.

9) Fact Sheet Plan

Jay Davis distributed the completed RMP fact sheet on Triclosan, as well as the first in a series of broad, less technical fact sheets created by SCCWRP. He noted that fact sheets are deceptively labor intensive, and estimated \$5 to \$10,000 of SFEI staff time for fact sheet development. Tom Mumley suggested that the figure could be much larger, although Amy Chastain considered that some of the broader issues such as length,

audience, and tone were addressed in the production of this first version, and would need to be reconsidered for subsequent fact sheets.

The RMP fact sheets are targeted at agency staff, and reporters, and are technically detailed. The SCCWRP fact sheets are targeted at their commission members and the public at large. They plan on developing one each quarter, with the next one focused on emerging contaminants. The RMP and the TRC will review the SCCWRP fact sheets, and SCCWRP will provide feedback on those from the RMP.

Jay Davis also noted that Dave Schoellhamer may be interested in working with the RMP to produce fact sheets or similar documents as a means of releasing information from his flux work in an easier more accessible format. He would write the document, leaving it to the RMP to finalize and release it.

Kirsten Struve asked about the distribution plan for the Triclosan fact sheet. Jay Davis indicated that it is not intensive – it is currently spotlighted on the RMP/ SFEI website.

Karin North noted that the impetus for this work came partially from Palo Alto, as they were getting a number of phone calls 5 years ago about Triclosan, and they needed a coherent message to pass along. The fact sheet and contaminant review produced a useful sound bite for their purposes; however the document itself is not immediately useful. She indicated that she will send out the fact sheet to various groups that may be interested in this information, such as other POTW and stormwater groups, and will update Meg Sedlak with the list of groups contacted. Amy Chastain will also report back regarding which of her contacts looked at the fact sheet when she emailed it along. John Coleman indicated that he would post this document on the Bay Planning Coalition website. He suggested that the Emerging Contaminants strategy should identify whether there is a need for this sort of product, and if so, what the list of contaminants should be.

Kevin Buchan indicated that this effort was valuable in that a new information dissemination approach was attempted, and we now understand the effort required to produce this sort of product.

Tom Mumley suggested that the RMP continue to work with SFEP, which is more experienced at outreach. The RMP could generate technical knowledge, and then pass it along to SFEP for communication and distribution. He will follow up with SFEP to discuss how SFEP can tap the scientific knowledge being generated by the RMP. Kirsten Struve suggested that the fact sheet be distributed as the RMP insert in the Estuary News.

Adam Olivieri summarized three potential goals in producing a fact sheet:

- 1) Create a 50-200 word blurb for executives
- 2) Summarize scientific knowledge
- 3) Broadcast and put on display the RMP and its products

He suggested that the next fact sheets focus on the first and third goals.

Kirsten Struve suggested an additional purpose of fact sheets:

4) Behavior change

which could be used as a criterion for selecting topics for future fact sheets.

Amy Chastain suggested passing along the fact sheet as well as the Triclosan summary to the Environmental Working Group.

Tom Mumley suggested that future fact sheets could come out of the Master Plan, which currently contains brief summaries of the program elements.

Tom Mumley noted that Dave Schoellhamer is looking for a vehicle to publish his results. This will require minimal effort on the part of the RMP. Adam Olivieri cautioned that USGS has a rigorous publication process, and the details will need to be discussed once a request is received. Tom Mumley made a motion that the SC be open to reviewing proposals from Dave Schoellhamer.

Action Items:

- Include the Triclosan factsheet as the RMP contribution to the Estuary newsletter.
- Initiate discussions with SFEP to more broadly distribute technical information generated by the RMP.
- Distribute the Triclosan factsheet to other agencies, and update the SC with where it was distributed and what they are doing with it.
- Discuss factsheets as a platform for information dissemination with Dave Schoellhamer, and let him know the SC is open to proposals on this front.

10) RMP Annual Meeting and Pulse

Jay Davis distributed a draft agenda for the Annual Meeting, which needs to be finalized. It is close to full, but some speaking slots are still open. The TRC was questioning whether to include a talk on "Safe to Swim", as it may open an area of questions that the RMP is not interested in discussing. He also proposed including a talk on Small Fish, as the multi-year project report is coming to closure, and that an additional keynote speaker could be included.

Karin North suggested that Kelly Moran could give a keynote talk on pesticides, however she noted that this topic may not fit the theme for the meeting.

Adam Olivieri indicated that as long as the Beach Water talk does not expand its scope beyond exposure, it would make an appropriate talk. Tom Mumley agreed, noting that the theme of "Effects" has already been stretched to include the sport fish work. While the RMP meeting may have some overlap with the State of the Estuary meeting, they will attract different audiences so the redundancy is acceptable.

Jay Davis suggested that the proposed sport fish talk by Aroon Melwani could be incorporated into the safe eating guidelines talk by Margy Gassel.

Karin North noted that Dan Schlenk will address the coordination between north and south in his talk, as will Chris Vulpe and Steve Bay.

Jay Davis suggested adding talks on small fish, pyrethroid toxicity in tributaries, and a north/south overview to the existing proposed agenda, while dropping the Sport fish in the Bay talk. Tom Mumley made a motion to accept this version of the agenda for the RMP Annual Meeting.

Jay Davis noted that the Pulse may not be ready in hard copy for the Annual Meeting this year, however the electronic copy will be available on the internet.

11) Program Update

The SC agreed to hold the next SC meeting on November 15th. The Master Planning meeting will be held in October 2011, with the exact date to be decided by a poll of the SC members.

Meg Sedlak noted that a number of products will be finished during August, as indicated on the workgroup update.

September 16th, 2011

To: Technical Review Committee

From: David Schoellhamer, Maureen Downing-Kunz, Greg Shellenbarger,

USGS Sacramento

RE: RMP-USGS Suspended Sediment Monitoring Options for Locating a Temporary SSC Monitoring Site

Background

The RMP provides partial funding for the continuous monitoring of suspended sediment concentrations (SSC) in the water column at six sites within the Bay (five fixed sites and one temporary site that was in the vicinity of the aquatic transfer station for Hamilton Air Force base). The Hamilton temporary site has been vandalized twice and is no longer in operation. The fixed sites are: Alcatraz, Mallard, Benicia, Richmond Bridge, and Dumbarton Bridge (see map).

We would like to relocate the temporary site and are seeking input from stakeholders. We will have a meeting with the LTMS project managers on October 6th. We are seeking input from the TRC before this meeting on possible alternatives for the replacement site. The options discussed below are organized by the primary objective of the temporary site.

Possible Alternative Sites and Rationale

Sample at the Bay margin (aka the bathtub ring): Historically most of the continuous monitoring that has been collected has been along the deep spine of the Bay and not at the margins, which the RMP recognizes as an information gap. Information from the margins would assist in our Bay margin model effort. Possible margin sites include:

1) Alviso Slough: This station was established in October 2010 by the USGS funding and was cut in 2011. There are presently no funds to operate it in FY2012. Suspended-sediment flux is measured at this site. The original intent of the site was to observe the effects of salt pond restoration on sediment flux. For the RMP, this site would add a South Bay slough site to the monitoring sites. The Corps of Engineers Regional Sediment Management Program or Coastal Conservancy might fund this station.

- 2) Mudflat adjacent to South Bay salt pond SF2: As part of a USGS funded project we collected data at this intertidal site January 2009 to April 2011, until funding was cut. Resuming monitoring at a previous site would be favorable for trend analysis but the opportunity to collect data at a different site would be lost. For the RMP, this site would add an intertidal mudflat site to the monitoring sites.
- 3) Corte Madera Creek mouth: This station has been supported by the Corps of Engineers Regional Sediment Management Program. Continuation of that program is uncertain. Suspended-sediment flux is measured at this site. For the RMP, this site would add a tidal creek site to the monitoring sites.
- 4) Another location along the Bay margin (such as Coyote Creek, interior marsh site, Petaluma River, or Suisun Marsh)

A deep site in Central Bay is an information gap: April-July 2011 the USGS RV Polaris water quality cruises usually observed that Central Bay was stratified with salty, cold water with low dissolved oxygen in the lower half of the water column. On April 12 this water extended into South Bay. The hypothesis is that coastal upwelling was the source of this water. There are no continuous monitoring stations in deep water in Central Bay (USGS or anyone else), so this phenomena was not observed continuously. With nutrients, eutrophication, and low dissolved oxygen an increasing concern of the RMP, a station in deep water in Central Bay (possibly along the San Francisco waterfront) would fill an information gap. USGS maintains a site at Alcatraz, but this is not in deep water. A deep water site used to be at San Francisco Pier 24 at the Bay Bridge, but the pier collapsed in 2001.

Reactivate a discontinued site: RMP funding for continuous monitoring has been level since 1995 so stations at Carquinez Bridge, San Pablo Bay channel marker 1, San Mateo Bridge, and Channel Marker 17 in lower South Bay were discontinued in 2005 as costs increased. A station at Mare Island Causeway on the Napa River funded by USGS was discontinued in 2005. Resuming monitoring at a previous site would be favorable for trend analysis but the opportunity to collect data at a different site would be lost.

Gain a better understanding of Golden Gate suspended-sediment flux: The flux of suspended sediment at the Golden Gate is probably the largest unknown in the Bay sediment budget. In 1996 and 1997 USGS collected limited SSC data; however, due to the exceedingly high flow through a relatively narrow channel, it is very challenging for us to monitor this site. Data collection here would require additional funds. Some boat-measured sediment flux data was collected by the USGS Santa Cruz and Sacramento offices in January 2008 (at a transect previously sampled by Mark Stacey and his lab) and we would like to analyze those data along with data from Alcatraz and numerical model results to attempt to develop a statistical model of suspended-sediment flux. This is a low priority for us due to other funded activities and deliverables. An option would be for us to make this a deliverable instead of adding another station. Other ideas are welcome.

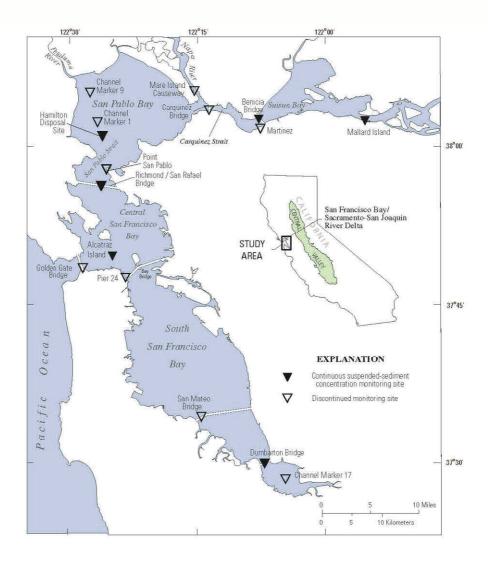


Figure 1. San Francisco Bay study area, California.

Workgroup Activities – Third Quarter 2011

A. Contaminant Fate Workgroup

Meetings:

The Contaminant Fate Workgroup (CFWG) met on May 12th. The major focus of the meeting was discussing the recently completed modeling reports, work by other Bay Area modelers (USGS and the Army Corps of Engineers) and discussing next steps forward for the modeling strategy. A recommendation from the meeting was to develop a tactical plan forward that would articulate not only the type of model to be employed but some of the logistical needs (e.g., expertise, individuals who have this expertise, schedule, coordination among groups, etc.). The CFWG discussed the types of models that might be used and how a biotic component could be included. One of the major concerns was how to address /model the Bay margins, which have higher concentrations of contaminants and tend to be very biologically active areas.

Milestones:

- Completion of the Bioaccumulation Model.
- Completion of a Draft Estimate of Atmospheric Deposition of Dioxin.

Activities for the fourth quarter of 2011:

• Development of tactical plan

The next CFWG to be determined. 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:

The SPLWG met on May 12th to discuss recent findings from the Mallard Island study; the Zone 4 Line A study; the Guadalupe River study; the Guadalupe River Model; and Spreadsheet Loading Model/EMC Literature review. On the following day, SPLWG met to discuss Small Tributary Loading Strategy and priorities including the Multi-year Plan, information needs for Category 3 Pollutants of Concern and loads monitoring.

Milestones:

• Completion of the Mallard Island report.

Activities for the fourth quarter of 2011:

- Meeting with subset of STLS and SPLWG advisors to plan for wet weather sampling 2011/2012.
- Completion of Zone 4 Line A Report that summarizes four years of data.
- Completion of Guadalupe HSPF manuscript.
- Completion of the Regional Storm Water Spreadsheet Model and Land Use Classification .

The next SPLWG meeting will be held on October 25th. This meeting will be a joint meeting with the Dioxin Strategy team (October 26th). 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 (EE) Workgroup

Meetings:

No meeting this quarter.

Milestones:

- Completion of 2011 small fish sampling.
- Completion of the Evaluation of Gene Expression for Sediment TIE Report (Steve Bay and Chris Vuple)
- Completion of the PBDEs and the Common Tern Draft Report (Barnett Rattner)

Activities for the fourth quarter of 2011:

- Completion of the small fish report.
- 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. Study is underway with halibut larvae and PAH-contaminated sediments.
- Completion of the EEPS Synthesis document (November 2011).

The next workgroup meeting will be held in October 18th 2011.

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 ECWG met on March 25th to discuss updates on the NIST broadscan work, the PFC sources project, the measurement of PFCs in tributaries, the factsheets, and potential pilot and special study projects. The ECWG requested pilot studies on PFC sources and NOAA mussel watch coordination and collaboration

Milestones:

• Completion of a draft article on the alternative flame retardants in San Francisco Bay.

Activities for the fourth quarter of 2011:

- Completion of a manuscript on Sources of PFCs to San Francisco Bay.
- Preparation of a draft report/manuscript on alkylphenols and PPCPs in San Francisco Bay.
- Continuation of NIST broadscan work. Samples of harbor seals and mussels have been sent to NIST for method development and analysis.

Next ECWG meeting date to be determined.

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.

F. Causes of Toxicity

The scope of work for the UC-Davis Granite Canyon work under the Causes of Toxicity element includes:

- Develop LC50 thresholds of effects for three compounds (cyfluthrin, chlordane and pyrene).
- Develop a collaborative state-wide workgroup and research effort to address causes of persistent moderate toxicity.
- Further research solid phase toxicity identification and evaluation (TIE) methods.

Milestones:

- The first of two Stressor Identification work group meetings was held at SFEI on April 7, and a second meeting is planned for the third quarter of 2011. The Agenda and Minutes from the first meeting are available on the SFEI website at: http://www.sfei.org/node/3117.
- Completion of the draft report. Currently under review, it will be sent to the workgroup shortly.

Activities for the fourth quarter 2011:

• Presentation to the EEWG in October 2011. Revision of draft report based on comments by the workgroup.

For more information, please contact Meg Sedlak at meg@sfei.org.

G. 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.

Milestones:

Work on the mesohaline assessment method report is on hold pending the workgroup
recommendation that a gold standard assessment of the taxonomy in freshwater and estuarine
environments be conducted. The mesohaline assessment includes a comparison of good/bad
indicators in BPJ samples to good/bad indicators in reference vs. non reference samples and
tables based on presence/absence have been prepared.

Activities for the fourth quarter 2011:

• No activities are planned for the third quarter.

For more information, please contact the benthic workgroup lead, Aroon Melwani, at aroon@sfei.org.

H. Status and Trends Sport Fish

Sportfish results have been reviewed by SFEI. Preliminary results have been submitted to OEHHA to assist in the development of sportfish advisories. The SWAMP/RMP sportfish monitoring report has been released and is available on our website.

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

I. Nutrients

Interest in nutrient science is increasing, as the Bay begins to respond in new ways to stress from nutrients and resources for nutrients work must be reallocated.

Meetings:

- A workshop on Nutrient Science was held at the David Brower Center on June 29th, 2011. About 100 people, scientists and managers included, attended.
- A more intensive meeting dedicated to initiating a discussion of monitoring nutrients in the Bay was held on June 30th at SFEI.
- A follow up Nutrient Strategy meeting was held on Sept 15th at SFEI.

Activities for the third quarter of 2011:

- Refine and finalize the five-year nutrient strategy.
- Finalize the scope of work for nutrients study in 2012.

For more information, please contact David Senn at davids@sfei.org.