



AGENDA
RMP Technical Review Committee Meeting
December 15th, 2010
San Francisco Estuary Institute
First Floor Conference Room
7770 Pardee Lane, Oakland
10:00 am - 4:00 pm

1.	Introductions and Approval of Agenda and Minutes (Attachment) Review of Action Items	10:00 Bridgette DeShields
2.	Information: Steering Committee Report (Attachment) Update on the recent SC meeting.	10:10 Meg Sedlak
3.	Action: 2011 Pulse (Handout) The Steering Committee has decided to proceed with the theme of “Contaminant Effects on Wildlife” for the 2011 Pulse. A draft outline and timeline will be presented. Desired Outcome: Approval of the outline for the Pulse.	10:20 Jay Davis
4.	Action: 2011 Joint meeting of CTAG and TRC (Attachment) SCCWRP has tentatively proposed the date of our joint CTAG/TRC meeting for May 19th. We have prepared a tentative agenda for review Desired Outcome: Agreement on date and tentative agenda.	10:50 Bridgette DeShields, Meg Sedlak
5.	2010 Highlights and 2011 Workplan (Attachment) Highlights from 2010 and plans for 2011 will be summarized. Desired Outcome: Provide feedback and approval of the 2011 Draft Detailed Workplan.	11:10 Meg Sedlak
5a.	<ul style="list-style-type: none">Mercury and PCB Strategies, Synthesis, and Small Fish	11:20 Rachel Allen, Jay Davis
	Lunch Break	11:45

5b.	<ul style="list-style-type: none"> • Modeling <ul style="list-style-type: none"> ○ Overview of strategy ○ Status ○ Workgroup meeting in April 	12:30 Ben Greenfield, Jay Davis
5c.	<ul style="list-style-type: none"> • Small Tributary Loading Strategy <ul style="list-style-type: none"> ○ Overview of strategy ○ Update on 2010 activities ○ Plans for 2010/2011 Watershed monitoring of 16 watersheds ○ Workgroup meeting in February 	1:00 Lester McKee / Alicia Gilbreath/ Michelle Lent
5d.	<ul style="list-style-type: none"> • Effects Studies <ul style="list-style-type: none"> ○ Overview of strategy ○ Update on 2010 activities ○ Plans for 2011 ○ Workgroup meeting in February 	1:40 Aroon Melwani, Meg Sedlak
5e.	<ul style="list-style-type: none"> • Contaminants of Emerging Concern <ul style="list-style-type: none"> ○ Overview of strategy ○ Update of 2010 activities ○ Plans for 2011 ○ Workgroup meeting in March 	2:10 Susan Klosterhaus
5f.	<ul style="list-style-type: none"> • Dioxin <ul style="list-style-type: none"> ○ Overview of strategy ○ Update of 2010 activities ○ Plans for 2011 	2:35 Don Yee
5e.	<ul style="list-style-type: none"> • Status and Trends <ul style="list-style-type: none"> ○ Overview of strategy ○ Sportfish ○ Water and sediment 	3:00 Meg Sedlak Jay Davis
5f.	<ul style="list-style-type: none"> • Data Management (Handout) <ul style="list-style-type: none"> ○ Improvements to the web site design and reporting ○ 2009 Annual Monitoring Results 	3:20 Cristina Grosso
6.	Action: Approve Detailed Workplan, set date for next meeting and Plus/Delta exercise on today's meeting	3:45 Chair
	Adjourn	4:00



RMP Technical Review Committee Meeting

September 21st, 2010

San Francisco Estuary Institute

First Floor Conference Room

7770 Pardee Lane, Oakland

10:00 am-2:30 pm

Meeting Participants

Mike Connor (EBDA)

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)

Rod Miller (SF PUC)

Trish Mulvey (SFEI Board of Directors)

Francois Rodigari (EBMUD)

Karen Taberski (SFBRWQCB)

Luisa Valiela (US EPA) (call in)

Rachel Allen (SFEI)

Jay Davis (SFEI)

Rainer Hoenicke (SFEI)

Susan Klosterhaus (SFEI)

Lester McKee (SFEI)

Meg Sedlak (SFEI)

Don Yee (SFEI)

1. Introductions and Approval of Agenda and Minutes

Meg Sedlak and Jay Davis reviewed action items from the previous TRC meetings, noting that Steve Bay is scheduled to come to the October 20th Benthic Workgroup meeting. There were no comments on the minutes from the previous meeting. Mike Kellogg made a motion to approve the minutes, Karen Taberski seconded, and the minutes were approved by consensus.

2. Information: Steering Committee Minutes

Meg Sedlak noted that Kirsten Struve was replacing Arleen Navarret as the large POTW representative to the Steering Committee (SC). Ms. Sedlak will work with her to take on tasks begun by Arleen Navarret. The SC could still use a new small POTW representative. Jay Davis and Meg Sedlak asked Francois Rodigari to recommend a colleague prior to the next SC meeting on October 19th. There is currently no formal definition of “small POTWs”. A discussion ensued concerning dredger participation on the TRC and SC. John Prall from the Port of Oakland is currently the TRC representative from the dredger community.

Meg Sedlak informed the committee that the SC approved the package of special studies for 2011.

Action Items

- Francois Rodigari to recommend a possible small POTW representative to the SC.

3. Information: Pulse and Annual Meeting Update

Jay Davis reviewed the agenda for the RMP Annual Meeting, which will be held on October 5th at the Oakland Museum. Two keynote speakers will be presenting: Tom Schueler from the Chesapeake Stormwater Network and John Sansalone from the University of Florida. Jay Davis asked for feedback on the lunchtime audience participatory activity. He proposed audience voting on various possible factsheet topics. The pilot factsheets, on triclosan and triclocarban, will be available in the 4th quarter of 2010. Mike Connor suggested voting on topic areas for the proposed expanded Pulse. Jay Davis will be meeting with Tom Mumley on September 22 and will discuss expanding the Pulse and combining the RMP and State of the Estuary (SOE) meetings in 2011. These ideas will be discussed with the SC in October. Rainer Hoenicke mentioned that additional funding would have to come from SFEP for the expanded Pulse. Jay Davis is also working with Andy Gunther and the SFEP to develop an improved report card for the Bay. This will certainly be a topic of discussion at the 2011 SOE meeting.

Trish Mulvey noted that SFEI does not have an annual meeting, and asked how the RMP fits into the overall picture of SFEI.

Rod Miller suggested moving from a periodic newsletter or Estuary Insert to electronic updates. Mike Connor noted that Rainer Hoenicke's quarterly report to the Board of Directors could be relatively easily converted to an electronic update, and Meredith Williams is working on the format for distributing this to a larger audience. He also mentioned that the Bay Area Clean Water Agencies (BACWA) recently began this type of communication, which was well received.

Francois Rodigari noted that BACWA and the Regional Water Quality Control Board (RWCQB) will be meeting to discuss factsheet topics, and suggested that Jay Davis participate in this discussion to coordinate RMP efforts with BACWA and Water Board projects. Jay will seek their help in adding a management component to the technical factsheets that SFEI will produce. Tom Hall suggested that Adam Olivieri be contacted if the CEC factsheets will address monitoring, because of his work on the state recycled water document.

Jay Davis also suggested getting audience feedback on communication platforms for the lunchtime activity. Trish Mulvey added that the activity could include written feedback, along with "sticky dot voting". The group agreed that the lunchtime activity should solicit feedback on communication platforms.

Jay Davis mentioned that the 2010 Pulse is going to the press, and thanked Karen Taberski for her hard work. He suggested that the 2011 Pulse focus on wildlife effects due to contaminants, and 2012 would be an appropriate year for a focus on Contaminants of Emerging Concern. The 2011 Pulse could feature Meg Sedlak's summary of the Exposure and Effects Pilot Study; some of the recently completed effects studies such as mercury and PBDE work in birds, PAHs in flatfish, benthic TIE studies, and endocrine disruption; and a summary of the status of wildlife populations. Luisa Valiela asked if this would overlap with the concurrent Bay Report Card, and suggested that it would be a good opportunity to highlight and coordinate both efforts, rather than duplicating work. Trish Mulvey noted that a Pulse on Effects may need more time for reviewing and editing,

because of the potentially sensitive nature of the content. Jay Davis mentioned that he deliberately proposed “Ecological Health” as the title so as to avoid to more controversial “Effects”, however Karen Taberski pointed out that the topics differ significantly. The exact title will need to be more carefully considered to accurately reflect to the focus of the Pulse.

Lester McKee gave a preview of his Annual Meeting presentation on “Recent Findings on Stormwater Loadings and BMPs/Multi-Year Watershed Loading Sampling Plan”. With the implementation of the Municipal Regional Permit (MRP), there is increased focus on stormwater contaminant loading. Using PCBs as a model, Dr. McKee illustrated how we can identify and track contaminants from their sources to the Bay, to inform effective management and control.

Regarding a table showing PCBs still in use, Lester McKee noted that PG&E and oil refineries were conspicuously absent from the list of current transformer users, and speculated that the total mass of PCBs in use is significantly higher. Bridgette DeShields mentioned that one of the listed sites is actually demolished. The list is incomplete and not current because it is based on information provided to the EPA as of 2007.

Rainer Hoenicke and Trish Mulvey asked about the effectiveness of management actions for PCBs. Some potential sources include the large barrels of PCBs found by CEP in 2004, and air deposition. The only research on loading in the Bay Area from air deposition has been in dry conditions, while the literature shows that wet conditions can have 2 to 20 times the loading of PCBs than dry conditions. Lester McKee noted that PCBs are often mobilized from local sources and begin entering the water system due to redistribution by foot traffic and local wind. Thus, he considers that the atmospheric component of the PCB TMDL is likely underrated, but not grossly.

Lester McKee suggested that PCB regulations be improved to the level of mercury regulations. For example, it is illegal for contractors not to dispose of mercury containing equipment. PCBs also continue to be used in dielectrics. Mike Connor noted that the replacement product may be worse than the current problem. Because PCBs that enter the Bay are not evenly distributed, there are “high leverage areas” for management actions.

Action Items

- Jay Davis to coordinate with BACWA and Regional Board on factsheets.
- Meg Sedlak and Jay Davis to create a list of RMP factsheet topics.

4. Action: Dioxin Sediment Sampling

The SC approved funding for analysis of additional surface sediment and core samples, and is looking to the TRC for guidance on which samples to analyze. Susan Klosterhaus and Don Yee reviewed the samples that have been analyzed to date. For surface sediments, 47 samples collected in the 2009 dry season have been analyzed. There are samples collected for dioxins from the 2008 dry season (47 samples) and from the 2010 wet season (27 samples). The three options for analysis are:

- A) 47 dry season samples (provides increased spatial coverage)
- B) 27 wet season samples (provides wet-dry comparison)

- C) Hybrid: all wet season samples, plus some additional dry season samples (wet-dry comparison, plus repeat dry season sites, which enable some statistical calculations)

The objectives of surface sediment sampling for dioxins are to: assess spatial variation in Bay, estimate the reservoir in Bay sediments, determine if recent loadings are different from historical loadings, and collect data for food web and mass budget models. Although option (A) would enable further assessment of spatial variation, Don Yee noted that the estimate for the dioxin reservoir will be unknown until a dry/ wet comparison is made. Higher wet season concentrations would indicate that there is loading from the tributaries, whereas lower wet season concentrations could suggest that the tributaries are cleaner than the existing Bay reservoir.

Mike Connor suggested using a tracer contaminant, such as dioxin congener profiles, from the tributaries to help estimate dioxin loading in the wet season. However, congener patterns may not be strong enough for this. Dioxin data from a few tributaries during the 2009-2010 wet season should be available shortly.

Bridgette DeShields, Karen Taberski, Tom Hall, Rod Miller, and Meg Sedlak all weighed in supporting the hybrid option (C). Francois Rodigari suggested doing option (A) now, and analyzing wet season data in 2012. Don Yee agreed that there is no disadvantage to that plan, but he considers the unknown seasonality factor more important than better spatial coverage. Trish Mulvey suggested asking for \$30,000 more, to fund the analysis of all samples (A plus B). It was generally agreed to move forward with option (C).

Don Yee discussed the goals of analyzing cores for dioxins: to determine if there is a legacy pool, to assess exposure risk to biota, and to observe a trend in loading (from pre- to post-industrial). There is no more material in the existing cores for the sections that have been dated, however sections just below or above the dated pieces can be analyzed, allowing their dates to be interpolated. He presented the options for analysis:

- A) 4 sections in each of the Bay cores (sections 1,2, and 3 plus bottom section)
- B) 4 sections in each Bay core (sections 1,3, and 5 plus bottom section)
- C) Use wetland cores

The wetland cores, being purely depositional, do not show the mixed layer or give an idea of exposure to biota, but would give a better estimate of the loading history.

Mike Connor noted that it would be good to verify a decline in dioxin loading because of the significant effort that has been done to control dioxin loading, and suggested using the wetland cores for this. Bridgette DeShields concurred, noting that it is suspected that there are no large sources in the Bay, but it would be good to verify that current loadings are lower than historic loadings. The exposure question can be answered by surface sediment analysis.

Don Yee will bring this recommendation back to the Dioxin Team, to determine if they agree with analyzing the wetland cores. The next Dioxin Team meeting will be held via phone or email, and should occur before the SC meeting in October 2010.

Lester McKee stated that an introductory meeting on nutrients will be held at the Water Board on October 4th, 2010, with a technical advisory group that includes Dick Dugdale, Jim Cloern, Clifford Dahm, Ralph ??? (Santa Cruz), and potentially Tom Hall. Brock Bernstein and Martha Sutula will be leading the group. The group will assess how to monitor if nutrients are changing in the Bay. Luisa Valiela noted that the EPA will attend the meeting. Amy Chastain, Mike Connor, and other BACWA members will also attend.

Action Items

- Discuss TRC recommendations on dioxin analyses with the Dioxin Team, before the October 19th SC meeting.

5. Information: Update on PFCs

Meg Sedlak presented an update on PFC monitoring in the Bay. Perfluorooctanesulfonate (PFOS) has been found at high levels in seal blood and cormorant eggs in the South Bay, however small fish, sport fish, bivalve, and ambient water concentrations throughout the Bay are at levels more comparable with those seen worldwide. All water samples, including wastewater, tributaries, Bay margins, and ambient water, had higher concentrations of perfluorooctanoic acid (PFOA) than PFOS. Though there is a similar spatial trend between seals and cormorants, the relationship between high concentrations in some species and low water concentrations is not yet understood.

The concentrations in South Bay cormorants is above the predicted no-effects value (PNEC), however Jay Davis suggested that it would be difficult to identify effects on the population or pin-point PFCs as the cause. Lester McKee suggested that the stormwater data indicate that PFCs are urban contaminants, because of the high concentrations seen at Z4LA and GR101, both sites receiving urban stormwater. Because of the strength of the carbon-fluorine bonds, PFCs do not degrade in the environment. Their half life in cormorants is quite short, however, so because the cormorant concentrations are not decreasing, there must be consistent sources.

Meg Sedlak recommended that the next steps in the PFC project are to continue with bird and seal sampling, and to continue to characterize sources.

6. Action: Water Pesticide Analyses

Don Yee presented two potential methods for pesticide sample collection for the RMP Status and Trends water samples:

- 1) 4 or 8 liter whole water grab
- 2) Infiltrax (filter/XAD) (equivalent to about 20L)

The whole water samples (option 1) have the advantage of no collection artifacts, but are logistically more difficult. The Infiltrax filters are easier to handle and have a larger volume equivalent to sample, but there is incomplete recovery in the filtering. A comparison of data analyzed using both sampling methods shows that the Infiltrax can have incomplete recovery, but fewer non-detects.

Don Yee recommended the whole water sampling technique, because it produces better recoveries for most analytes, which he suggested is more important than fewer non-detects. The grab whole

water samples thus produce less unknown uncertainty than the filtered samples. The current list of pesticides includes multiple DDTs and chlordanes, however Don Yee also noted that as AXYS develops methods for new pesticides, the RMP will be able to easily analyze for these new contaminants.

The TRC agreed with Don Yee's recommendation, and decided to continue with whole water grab samples (option 1).

7. Information: Sediment Quality Objectives - Indirect Effects

Ben Greenfield updated the TRC on progress in the statewide Sediment Quality Objectives (SQO) program, including how monitoring data are interpreted, and the potential effect of sediment contaminants on human health. The assessment framework is designed to improve the quality of sediment assessment across the state and determine if pollutant concentrations in sediment pose a risk to human health. It is set up in a tiered fashion, such that each tier requires more effort and data. If a location does not meet SQO at the first tier, it moves on to tier II, which is more detailed.

The models are currently designed for organic pollutants such as PCBs, and have not yet incorporated mercury. Trish Mulvey suggested that Ben Greenfield develop a proposal to the RMP to focus on mercury linkage between sediment and biota in the Bay, which could help advance the SQO work. Mike Kellogg suggested that the RMP could take an active role in developing and implementing SQO. Karen Taberski agreed that the indirect effects assessment framework is a logical way to interpret sediment data. Ben Greenfield noted that SQO is scheduled for implementation by January of 2011, but the program will likely negotiate for the next year.

The TRC embraced the idea of looking at indirect effects of sediment, and was interested in aligning the effort with the RMP.

Action Items

- Develop a RMP proposal for including Hg in SQO.

8. Information: Planning Update

Jay Davis updated the TRC on the status of the Master Plan, which was discussed at the August SC meeting. He will meet with Tom Mumley to go over feedback on the Master Plan on September 22. He also presented the new annual planning cycle, which is designed to keep the program moving forward and incorporating results from synthesis reports and multi-year studies by using placeholder budgeting. For example, the planning workshop will be held in January, and the budget will be set for 2012 in October of 2010. The workgroup meeting schedule was also presented. The Modeling Team is scheduled to have more regular meetings to map out the 3 modeling tasks to be completed.

In the first quarter of 2011, the Meg Sedlak will begin working on the Status and Trends Strategy. If she has recommendations from this evaluation, they may be able to influence the planning cycle in 2012.

Don Yee noted that an Air Deposition Strategy meeting was held in May 2010. There was little call for new information, and the team noted that the RMP is already addressing the top priorities, such as dioxins. By the end of 2010, they will document the work to date on air deposition, and summarize why it is desirable to move forward on dioxins only.

Jay Davis suggested that the TRC and SC could start considering holding the next RMP program review in 2012. He was not necessarily recommending this, but it is within the realm of possibility.

9. Information: Program Update and Laboratory Data Status

Meg Sedlak noted that the next modeling meeting is scheduled for November 15th, the benthic workgroup meeting is scheduled for October 20th, and the stressor ID workgroup will be held in November.

Regarding RMP deliverables, the Sources, Pathways, and Loadings team at SFEI is working to fill two positions, which when filled should help Lester McKee to meet the deadlines. Meg Sedlak noted that the program is right on budget for field work, and she expects no delays from the subcontractors.

10. Action: Set Agenda and Date for Next Meeting

The next meeting is set for Wednesday, December 15, 2010. Bridgette DeShields asked for comments from the group on things that went well and improvements to the meeting (plus/delta). Trish Mulvey and Bridgette DeShields noted that the presentations and recommendations were focused and efficient. Eric Dunlavey appreciated the discussion on dioxin sampling in cores. Bridgette DeShields suggested that the meeting get out on time as an improvement.

#	Action Items – Sept 2010	Who?	When?	Status 12/8/2010
2	Discuss fact sheet needs and development with BACWA and Regional Board. Develop list of factsheet topics	Jay Davis	January	Pending
5	Develop a 2012 RMP proposal for incorporating mercury into SQO indirect effect models	Ben Greenfield	April	

#	Action Items – June 2010	Who?	When?	Status 12/8/2010
3	Send a list of SFEI stormwater projects to Chris Sommers.	Lester McKee	July	
4	Chris Sommers and Ken Schiff (SCCWRP) will work together to plan a joint north-south stormwater meeting in the next 6 months.	Chris Sommers, Ken Schiff	By December 2010	
5	Explore holding a joint meeting between SFEI and SCCWRP on nutrients in about a year.	SFEI Staff		Included in TRC December Agenda
6	Standardize the format of RMP proposals	Jay Davis, Chris Sommers	Next round of proposals	
7	Review existing information on shellfish, and consider designing a comprehensive shellfish survey.	Meg Sedlak and Jay Davis	Spring 2011	
8	Begin developing an improved review process for future Pulses.	Jay Davis	Spring 2011	

#	Action Items – March 2010	Who?	When?	Status 12/8/2010
1	Create web pages for the reports coming out of RMP each year	Rachel Allen	As needed	
2	Take fact sheet plan to the Steering Committee	Jay Davis	First quarter 2011	

Notes:

1. Richard Looker substituted for Karen Taberski
2. Saskia van Bergen substituted for Francois Rodigari

P = present

C = call-in

X = not present

RMP Water Qual represented	MEMBER	Affiliation	2008				2009				2010			
			1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
POTWs	Francois Rodigari	EBMUD	P	P	P	P	P	P	P	P	P	(2)	P	
POTWs	Rod Miller	SF PUC	X	P	P	X	X	P	P	X	X	X	P	
South Bay Dischargers	Tom Hall	EOA, Inc.	P	P	P	P	P	P	P	P	P	P	P	
CCSF	Mike Kellogg	City and County of San Francisco	P	P	P	P	P	P	X	P	P	P	P	
City of San Jose	Eric Dunlavey	City of San Jose	P	P	X	P	P	X	P	P	P	P	P	
Refineries	Bridgette DeShields	Arcadis/WSPA	P	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	X	
Stormwater	Chris Sommers	EOA, Inc.	P	P	P	X	P	P	P	P	P	P	X	
Dredgers	John Prall	Port of Oakland	P	P	X	X	P	P	X	P	P	X	X	
Corps of Eng.	Rob Lawrence	Army Corps of Engineers	X	X	X	X	X	X	X	X	X	X	X	
SF-RWQCB	Karen Taberski	SF-RWQCB	P	P	(1)	P	P	P	P	P	P	P	P	
US-EPA IX	Luisa Valiela	US EPA	X	P	X	P	X	C	X	C	P	X	C	



RMP Steering Committee Meeting

November 3rd, 2010

**San Francisco Estuary Institute
Second Floor Conference Room
7770 Pardee Lane, Oakland, CA**

1:00 PM - 3:30 PM

DRAFT MINUTES

Members Present:

Dave Allen, USS POSCO
Steve Bauman, Mirant
Kevin Buchan, WSPA
Ellen Johnck, Bay Planning Coalition
Tom Mumley, SFB RWQCB
Karin North, City of Palo Alto (alternate for Brad Eggleston)
Adam Olivieri, EOA/ BASMAA
Kirsten Struve, City of San Jose
Dan Tafolla, Vallejo Sanitation and Flood Control District

Others Present:

Rachel Allen, SFEI
Mike Connor, EBDA
Jay Davis, SFEI
Rainer Hoenicke, SFEI
Lawrence Leung, SFEI
Trish Mulvey, SFEI Board of Directors
Meg Sedlak, SFEI
Ian Wren, Baykeeper

1) Approval of Agenda and Minutes

Meg Sedlak reviewed action items from the previous Steering Committee (SC) meetings. She noted that she and Lawrence Leung had had a productive meeting with Adam Olivieri, and Trish Mulvey about the accounting terms used in the RMP budget summary; Lawrence indicated that he had incorporated the recommendations from that discussion in the current memo. Ms. Sedlak and Lawrence Leung also looked into developing an option for rolling averages metal loads for the POTWs, however they concluded that it would not save on time or effort, and according to some BACWA members, the current method does provide valuable information for trends. Mike Connor noted that based on

the information provided by RMP, EBDA and EBMUD determined that they had been over-reporting chromium data.

Trish Mulvey asked that the action item table from the minutes be compiled and distributed as a separate document. Adam Olivieri motioned to approve the minutes, and Dan Tafolla seconded it. The minutes were approved unanimously.

Action items:

- Include the action item table as a separate document.

2) Committee Member Updates

There were no committee member updates.

3) Technical Review Committee Meeting Summary

At the September Technical Review Committee (TRC) meeting, the group discussed the possibilities for the analysis of sediment samples for dioxins, the funds for which the SC approved in the May SC meeting. The TRC recommended analyzing a combination of wet season and dry season samples. Also of note, the TRC discussed the sampling technique for pesticide analysis in water, and recommended collecting whole water samples rather than using the column filters.

Jay Davis mentioned that he will send an email to the SC with a scope for fact sheets, and with the triclosan and triclocarban factsheets that are in development. Kirsten Struve mentioned that there is already a TCS factsheet. Karin North confirmed this, but mentioned that it was created in 2003, and that it does not explain the science on TCS, which the RMP version will. Jay Davis added that it will also provide links to relevant data.

Action items:

- Distribute factsheet scope and draft TCS and TCC factsheets to the SC.

4) 2010 Budget Status

Lawrence Leung reviewed the status of the budget, noting that it is on track for 2010. Paradise Cay is continuing to pay off its fees in incremental amounts. The balance from the 2005-2007 fees owed by Caltrans should be received shortly, and the 2010 fees will be received next October upon completion of deliverables (Pulse and Annual Meeting).

Adam Olivieri asked if Lawrence Leung follows up on bills and invoices, such as Paradise Cay. Lawrence Leung confirmed that he routinely calls to remind the organizations. Tom Mumley asked that the RMP move towards paperless billing practices. Mike Connor suggested that a web-based spreadsheet would facilitate the submission of the POTW annual loading data.

The RMP is aiming to maintain a reserve of about \$200,000. Tom Mumley noted that including the expected Caltrans fees, the reserve is currently over \$300,000.

Meg Sedlak indicated that as a result of cost-saving measures that the 2010 subcontractor budget has approximately \$16,000 that is unallocated. She requested that approximately \$15,000 be reallocated to retain a consultant, Craig Jones, to complete the Margins Conceptual Model project. This project was delayed in part due to the departure of John Oram in June of 2010.

Tom Mumley noted that while he agrees that this project is a priority, in the future he would like to see a prioritization of unfunded projects, to determine where suddenly available funds such as these could be spent most effectively. Kevin Buchan and Dan Tafolla agreed that such a prioritization would be helpful. Meg Sedlak indicated that she prefers to have all projects go through the normal process of funding, and that she reserves these special requests for projects that encounter unexpected setbacks or for time-sensitive opportunities such as 2010's NOAA Mussel Watch collaboration.

Tom Mumley also indicated that the December 2010 deadline can be extended to January 2011 if it will improve the final product. Meg Sedlak noted that the current schedule is for a first draft in December, with review in January.

Kevin Buchan recommended approval of the reallocation of subcontractor funds. Tom Mumley seconded it, the funding was approved.

Action items:

- Move towards using paperless billing practices for WWTP invoices and data submission.

5) Approval of 2011 Draft Program Plan/ Budget

Meg Sedlak noted that the new planning agenda has moved approval of the budget for 2011 up 1 quarter. In 2010, with regard to participant fees, the SC did not approve an increase in fees for 2011; fees will remain the same as 2010. There is an \$11,471 shortfall from dredgers. There was a surplus in dredger funds in 2010, so staff is requesting the use of these funds to cover the \$11,471 shortfall in 2011.

The projected revenue from interest in 2011 is low. The RMP had estimated that the revenue from interest would be \$25,000. At this time, we estimate only \$15,000. Consequently, Ms. Sedlak requested an additional \$10,000 to cover the shortfall in interest. She also requested \$52,000 for analysis of dioxin samples, which had been deferred (a memo was included in the agenda package on this).

In reviewing the 2011 Expenses spreadsheet, Tom Mumley asked for a clarification of "Other Direct Costs". Meg Sedlak noted that expenses such as printing the Pulse, annual meeting costs, honorariums for panel members, equipment such as rain jackets, and the financial audit are all included in this category.

Tom Mumley noted that he found the style of the Program Plan wordy, and asked for clarification of the intended audience. Meg Sedlak clarified that it is a general summary intended for the SC, with details included in the companion document: the detailed workplan, submitted to the TRC. Tom Mumley suggested that the Program Plan be written with the “punch line” at the beginning, with rationale following. Kirsten Struve suggested that the hierarchy of documents be more clearly laid out.

Tom Mumley asked for a one-page summary of the RMP Program Plan, based on the budget summary on the last page of the Program Plan. Karin North suggested that this one page document could also lay out the document hierarchy and provide appropriate links to more detailed sources of information.

Adam Olivieri commented that it would be useful to have a separate budget summary table that was annotated with descriptions of each of the items. Karin North suggested using an 11 by 17 inch paper to get all of the information on one page. She also noted that if it is posted on the web, it could be linked to more detailed descriptions.

Tom Mumley also asked how comments from the TRC get incorporated into proposals for the projects, and where the predicted product from the projects is stated. Jay Davis noted that the revised proposals are included in the scope of works as part of the contracts.

Tom Mumley asked whether the special studies are posted on the web and Jay Davis indicated that the Detailed Workplan includes a summary of the study ideas. It was suggested that the RMP post the studies on the web. Adam Olivieri commented that there are really three documents: the Program Plan, the budget and the Detailed Workplan and that each needs to reference the other two documents.

Mike Connor noted that all parties agreed that the copper and salmon study would meet the TMDL, and Tom Mumley concurred. Adam Olivieri asked if the funding requests (dioxin funds, reserve interest, and dredger shortfall) were needed in order for the RMP to operate. Meg Sedlak noted that the dioxins study could be deferred another year but that the \$20,000 from interest and dredger shortfall are necessary. Tom Mumley motioned to approve the Program Plan, with the modifications, which Adam Olivieri seconded. The Program Plan was approved.

Action items:

- Aggregate funded special studies and make them available on the website.
- Make the recommended clarifications and corrections to the Program Plan.

6) Approval of 2011 Master Plan and Decision on 2012 Fees

Jay Davis outlined the format and improvements in the Master Plan, including an update of figure 2. He stated that approximately 40 percent of funds go to program management, and the further breakdown of allocation of funds is laid out in the Master

Plan. If the stakeholder fees remain fixed, there will be a shortage in funds resulting in less work (i.e., funding for special studies would decrease). Because of municipal and other agencies' financial cycles, the SC will need to decide on the fees for 2012 during this meeting so the agencies can budget appropriately.

Tom Mumley lauded the Master Plan, mentioning that it gives a sense of what the RMP is doing. Assuming that the fees are not increased, there will be a substantial shortfall in funds for Special Studies in 2012. Jay Davis noted that Meg Sedlak will flesh out the Status and Trends Five-year plan in the first quarter of 2011.

Jay Davis circulated a handout outlining budget scenarios for Special Studies in the upcoming years based on various increases in RMP fees, SFEI labor, and subcontractor rates. Ideally, fees would keep pace with salary increases, and the program would not have to shrink. Rainer Hoenicke noted that there has been a decline in RMP funds since 2005. He added that SFEI salary structure is currently about 30 percent lower than the salary classes in comparable agencies, such as EBMUD and SFPUC. As an organization, SFEI needs to ensure that it does not lose staff because of the salary discrepancy. He therefore urged the SC to consider a scenario where the RMP fees do not remain stagnant.

Kevin Buchan supported the SFEI decision to adjust its salaries as necessary. However, he indicted, as did Adam Olivieri, that it is currently not possible to increase the RMP fees. Tom Mumley asked the overarching question of "what do we want the RMP to do?". If required, the Water Board could start using regulatory measures to maintain the scope of work of the RMP.

Dan Tafolla asked if the agencies could make up fee increases at a later date.

Adam Olivieri stated that if the RMP was operating with a smaller budget perhaps some items could be deferred or performed less frequently, such as producing the Pulse once every two years. Trish Mulvey suggested that the Status and Trends monitoring could be performed every other year. Tom Mumley suggested that studies such as small tributary loading studies need not be performed with RMP funds if the program were pressed for resources, as it does not benefit all of its member organizations. However, this would require the storm water agencies to meet the regulatory requirement through other programs/entities, and may not be as economically efficient as conducting this work through the RMP.

Tom Mumley summarized the general consensus: that the agencies cannot approve a fee increase for 2012. However, Ian Wren and Adam Olivieri suggested that RMP staff lay out the consequences of a decrease in special studies funding by prioritizing projects and determining which are required. This will be taken into account at the Master Planning workshop, along with issues such as Jim Cloern's retirement from the USGS and the potential loss of water quality monitoring that is currently conducted by that group. Kevin Buchan suggested that RMP studies that benefit specific groups would be the first to be cut, while Adam Olivieri considers the first priority of the RMP to be permit

compliance. Rainer Hoenicke suggested that this discussion be outlined by Meg Sedlak and Jay Davis and included in the agenda for the planning workshop.

Regarding additional resources, Rainer Hoenicke suggested that the SC discuss working with Judy Kelly to get additional funds at a later meeting, such as the planning workshop. Tom Mumley noted that there has been no concrete progress with regards to SEP funds; however, if the RMP has a list of project needs identified, then they could potentially use SEP money to fund some of them. However, future USEPA funding may be limited to restoration efforts. Trish Mulvey asked about program review; however the group felt that this was on the list of priorities. This topic can be addressed in the planning workshop.

The group concluded that the agencies would not increase fees in 2012. Mike Connor pointed out that this decision reflects “what we want the RMP to be”, because the same level of funding will necessarily make possible less work as the years go on. He suggested that the SC could decide now to make up the deficit by increasing fees 6 percent in 2013. In the meantime, each of the stakeholders should prioritize RMP activities and identify areas where there could be cuts. Kevin Buchan motioned for a 0% increase in fees for 2012, which Ellen Johnck and Kirsten Struve seconded. The motion was approved.

Ellen Johnck motioned to endorse the Master Plan. Kevin Buchan seconded the motion, and the SC voted unanimously to endorse the Master Plan.

Kevin Buchan noted that the Master Plan should remain an internal document and not be distributed beyond the SC. RMP staff will use a web-based tool to schedule the Master Planning Workshop for February 2011.

Action items:

- Include a discussion of RMP project prioritization for the Planning Workshop.
- Discuss plans for the program review at the Planning Workshop.
- Schedule the Master Planning workshop for a date in February 2011.

7) Dredger Fees for 2011 to 2013

Meg Sedlak and Lawrence Leung proposed to set up a separate account to help mitigate the variability in funds received from dredgers, which arises as a result of the fluctuation in the amount of material dredged within any one given year. Lawrence Leung proposed saving any dredger surplus in a separate account to offset the years in which there are dredger shortfalls.

Lawrence Leung explained that the fees would remain the same for 2011-2013 period. As part of the dredger fee system approved in 2007, the rolling average for dredger volumes for the Annual dredgers (the top five) is recalculated every three years. The fee rate for 2011-2013 will be \$0.60 per cubic yard of disposed material. Lawrence Leung

indicated that if the new volumes resulted in surpluses for a number of years, the SC could revise the rate.

Ellen Johnck noted that with the implementation of the LTMS, the amount of material being deposited in the Bay is decreasing. She supported the plan of a separate account.

Tom Mumley motioned to approve the letter to the dredgers, notifying them of the dredger fee rates and revised bin volumes. Adam Olivieri seconded the motion, and the motion passed unanimously.

8) Annual Meeting and Pulse

Jay Davis relayed the TRC recommendation for the theme of the 2011 Pulse to the SC: “effects of contaminants on aquatic life in the Bay”. This would also be the theme for the Annual Meeting. He noted that it is well timed with a forthcoming summary on the Exposure and Effects Pilot Study.

Tom Mumley asked if there was enough good material to produce a Pulse on this topic, but also noted that the RMP has never had trouble developing an interesting day long meeting.

Jay Davis added that the effects articles would incorporate benthos, birds, and fish, and would require collaboration from a number of different researchers. The deadline for draft articles this year will be June. Karin North added that Janet Thompson, of USGS, did a benthos study at Palo Alto, which could be included.

The group approved the topic of “effects of contaminants on aquatic life in the Bay” for the 2011 Pulse and Annual Meeting.

Meg Sedlak gave a follow-up on the 2010 Annual Meeting, which notably had lower attendance than previous years, with only 160 attendees. The survey only had 20 respondents which may not be very representative. Kevin Buchan noted that it is generally very difficult to get feedback from participants. Karin North noted that the Bay Area Protection Group had noted that the meeting was stormwater centric, and therefore chose not to attend. Tom Mumley suggested that the decrease in attendance was likely more linked with the economy than with the chosen topic.

With regards to incorporating the RMP meeting as a day in the State of the Estuary (SOE) Conference, Tom Mumley noted that the SOE may be only a two-day meeting, and that including the RMP as part of it may require that the RMP purchase a day at the Marriott Convention Center.

Jay Davis asked if the RMP should hold another Mercury Meeting this year, or potentially have a meeting on another topic. Tom Mumley noted that the Annual Mercury Meetings have been helpful and successful; however it does not seem to be necessary for 2011.

Action items:

- Look into including the RMP Annual Meeting in the SOE conference.
- Include the feedback on communication formats from the RMP Annual Meeting at the next SC meeting.

9) Plus/Delta on today's meeting

The next SC meeting will be held on January 19, 2011. An on-line poll will be set up to determine the date of the next Master Planning workshop.

Ellen Johnck announced that she is leaving the Bay Planning Coalition, and that December 31st is her last day as Executive Director. She will remain in contact with the organization as a consultant, and will help the new Executive Director with her role on the SC.

#	Action Items – November 2010	Who?	When?	Status 12/8/2010
1	Distribute factsheet scope and draft Triclosan and Triclocarban factsheets to the SC	Jay Davis	First quarter 2011	Pending. To be addressed in first quarter 2011
2	Develop website tool for uploading of WWTP metal loads	Meg Sedlak	December 22nd	Meeting with web developer and information team
3	Update the RMP 2011 Program Plan based on feedback	Meg Sedlak	By December 1	Posted on web-site
4	Send out a Doodle poll for the SC planning workshop	Rachel Allen	Completed.	Date set for February 7 th .
5	Include a discussion of RMP project prioritization and plans for the Program Review in the agenda for the Planning Workshop	Rachel Allen	To be included in Feb 7 th agenda	
6	Update SC on lunchtime communication poll from the RMP Annual Meeting.	Rachel Allen	To be included in January 19 th SC agenda	
7	Evaluate coordinating the 2011 RMP Annual Meeting with the State of the Estuary Conference	Meg Sedlak		Bring back to SC for comment

#	Action Items – August 2010	Who?	When?	Status 12/8/2010
1	Speak with Rob Lawrence to encourage more participation by the USACE in the RMP.	Ellen Johnck		Sent e-mail to Ellen on this issue
4	Speak with the USACE about RMP and USACE coordination and funding collaboration.	Ellen Johnck and Rainer Hoenicke		
6	Define a Pulse review process that provides adequate oversight and is more efficient.	SC Members	October SC Meeting	
7	Send an example of the standard balance sheet to Lawrence Leung and SC members.	Ellen Johnck		Sent e-mail to Ellen regarding this issue.

#	Action Items – January 2010	Who?	When?	Status 12/8/2010
5.	Develop a Strategy for Status and Trends	Meg Sedlak	First quarter 2011	Pending

RMP Water Qual represented	MEMBER	Affiliation	2008				2009				2010			
			1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
POTW-Large	Dave Tucker (1)	City of San Jose	X	P	P	P	X	X	P	P	P	P	-	-
POTW-Large	Arleen Navarret (3)	SFPUC	-	-	-	-	-	-	-	-	-	-	P	-
POTW-Large	Kirsten Struve (4)	City of San Jose	-	-	-	-	-	-	-	-	-	-	-	P
POTW-Med	Dan Tafolla	Vallejo Sanitation and Flood Control District	P	P	P	P	P	P	X	P	X	P	X	P
POTW-Small	Ken Kaufman	South Bayside System Authority	X	X	X	X	X	X	X	X	X	X	X	X
POTW-Small	Brad Eggleston	City of Palo Alto	-	-	-	-	-	-	-	-	-	-	-	(5)
Refineries	Kevin Buchan	WSPA	P	P	P	P	X	(2)	P	P	P	P	P	P
Industry	Dave Allen	USS POSCO	P	P	P	P	X	P	P	P	X	P	P	P
Cooling Water	Steve Bauman	Mirant Delta, LLC	X	X	X	X	X	X	X	X	X	X	X	P
Stormwater	Adam Olivieri	EOA, Inc	P	X	P	P	P	P	P	P	P	P	P	P
Dredgers	Ellen Johnck	Bay Planning Coalition	X	P	P	P	X	X	X	P	P	W*	P	P
SF-RWQCB	Tom Mumley	SFB RWQCB	P	P	P	P	P	P	P	P	P	P	P	P
SF-RWQCB	Karen Taberski (backup)	SFB RWQCB	-	-	-	-	-	-	-	-	-	-	-	-
US Army Corps of Engineers	Rob Lawrence		C	X	X	X	X	X	X	X	X	X	X	X

Notes:

1. Dave Tucker elected to SFEI Board, June 2008	P = present	C = call-in
2. Marcus Cole filled in for Kevin Buchan	X = not present	W* = provided input at RMP master planning workshop 4/21/10
3. Replaced Dave Tucker as Large POTW Rep in May 2010		
4. Replaced Arleen Navarret as Large POTW Rep in Sep 2010	- = not a rep at time of meeting	
5. Karin North filled in for Brad Eggleston		

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RMP TRC / SCCWRP CTAG Joint Meeting

May 19th, 2011

SCCWRP

10:00 AM – 6:30 PM

Lunch will be provided

AGENDA

1.	Welcome, Introductions, and Goals for the Meeting	10:00 Dominic Gregorio
2.	Highlights of RMP and SFEI 2011 Study Plan (Attachment – RMP Program Plan for 2011) Highlights from the 2011 RMP Program Plan will be presented (25 min presentation, 20 min Q&A).	10:15 Jay Davis
3.	SCCWRP Director's Report and Contract Review	11:00 Steve Weisberg
4.	Highlights of the 2011 SCCWRP Research Plan (Attachments – SCCWRP 2010-2011 Research Plan) Highlights from the 2011 SCCWRP Program Plan will be presented (20 min presentation, 10 min Q&A). – voting on the SCCWRP Research Plan	11:30 Steve Weisberg
	Lunch (to be brought in) Lunchtime presentation (starting at 12:20) – <Potential ideas? >	12:00
5.	Effects: RMP and SCCWRP Activities Presentations on effects to birds, fish and benthos.	12:50 TBD
	Break	2:45
6.	Other Topics to be considered for May Meeting: Nutrients? The San Francisco Bay is unique in that it has relatively high nutrient concentration with relatively few effects. In part, this is due to light limitations caused by significant suspended sediment loads. This is in contrast to some of the bays and coastal areas located in Southern California. LID/ Green Infil? Something else?	3:05 Martha Sutula and Lester McKee

7.	Update on Collaborative Activities: Stormwater Studies <Maybe hold off on this as we are in the process of planning a joint Northern/Southern California Stormwater Workshop?> <ul style="list-style-type: none"> • Discussion of RMP/SCCWRP activities (20 minutes) • Q&A and Ideas for future collaboration (10 minutes) 	4:00 Eric Stein, Lester McKee
8.	Update Collaborative Activities: Emerging Contaminants <ul style="list-style-type: none"> • NOAA Mussel Watch Activities/ Pro bono studies (15 min) • 2011 RMP/SCCWRP Special study with NIST (10 min) • State Review Panels (Drinking Water and Packard Report) • Ideas for further collaboration and Q&A (15 minutes) 	4:35 Susan Klosterhaus; Keith Maruya
9.	General Discussion Discussion of: <ul style="list-style-type: none"> • Other potential opportunities for collaboration • Plans for future meetings • Other topics that arise during the day • Formal interchange between SCCWRP/SFEI working groups 	5:15 Group
10.	Wrap-up and Identification of Action Items	5:30 Dominic Gregorio
11.	Adjourn	5:45
12.	Socializing	5:45 to 6:30

Workgroup Activities – Fourth Quarter 2010

A. Contaminant Fate Workgroup

Meetings:

The Modeling Team met on November 23rd to discuss the Margins Conceptual report, the Bioaccumulation report, and progress on the 3-D SUNTANS model. In addition, Dr. Patrick Barnard presented USGS Sand and Mud Provenance studies that are currently underway, with the intention of receiving SFEI input on study design (e.g., sampling locations, techniques, etc.) for the Mud Provenance Study. The USGS Sand and Mud Provenance studies are primarily intended to inform the USACE's dredging operations; however, the USGS is interested in providing as much information as possible to increase our knowledge of sediment transport within the San Francisco Bay and along the coast.

Milestones:

- Acceptance of methylmercury simple mass balance manuscript to Environmental Toxicity and Chemistry.

Activities for the first quarter of 2011:

- Completion of 3D-Modeling effort (February).
- Completion of Bay Margin Model (Dec 2010/ Jan 2011).
- Completion of the Bioaccumulation Model (February).
- Incorporating comments from workgroup meeting into atmospheric deposition strategy (Dec 2010).
- Completion of air deposition report for dioxin (Dec 2010).

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:

A subset of the STLS team met with the Regional Water Quality Control Board in October and December to determine the final site selection for the 16 watersheds to be monitored in 2010/2011.

Milestones:

- Staff has been mobilized and wet weather sampling has commenced at the agreed upon sites.

Activities for first quarter of 2011:

- Continue wet weather sampling.
- Hold a meeting with subset of STLS and SPLWG advisors to review wet weather sampling to date.
- Completion of Zone 4 Line A Report that summarizes four years of data (Dec 2010).
- Completion of Guadalupe HSPF (December 2010).
- Completion of the Regional Stormwater Model and Land Use Classification (February 2011).
- Completion of the Mallard Island Report (March 2011). Report delayed due to lack of USGS SSC data.

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:

- Dr. Kelley completed his report titled “Characterization Studies of a Thyroid Endocrine Disrupted Condition in Wild Fishes of San Francisco Bay”
- Completion of 2010 small fish sampling.
- Preparation of a manuscript on the first year of the NOAA PAH and flatfish study.

Activities for the first quarter 2011:

- 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. As a result of the oil spill, NOAA’s resources have been moved to the Gulf. This prevented John Incardona from collecting sediments from Kitimat Alaska for the second year of his study which will focus on exposure of field sediments to juvenile California halibut. He anticipates conducting this study in the Spring of 2011 when halibut larvae are available.
- Dr. Barnett Rattner will continue his PBDE and terns study. At present, no changes to tern skeletal systems was noted based on exposure to PBDEs. Kestrel hatchlings were found to have reduced skeletal lengths and deformed spines. These results will be further investigated. No effects to the bursa follicle were noted from exposure to PBDEs. (Bursa follicle is an epithelial and lymphoid organ found only in birds.)
- Completion of the EEPS Synthesis document (January 2011)

The next workgroup meeting will be determined.

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:

No meetings this quarter.

Milestones:

- Completion of draft CEC chemical profiles on Carbamazepine.
- Submittal of manuscript on PFCs in Bay area wildlife.

Activities for the first quarter 2011:

- Completion of a manuscript on Sources of PFCs to San Francisco Bay (Dec).
- Preparation of a draft report/manuscript on alkylphenols and PPCPs in San Francisco Bay (Dec).
- Preparation of a draft report/manuscript on alternative flame retardants in San Francisco Bay (Dec).
- 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 will be in March 2011.

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.

E. 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 first quarter of 2011. The Agenda and Minutes from the first meeting are available on the SFEI website at: <http://www.sfei.org/node/3117>.
- Exposed amphipods from selected RMP Status and Trends monitoring stations were provided to UC Berkeley researchers for the development of gene microarray technology for *Eohaustorius estuarius*. Additional exposed amphipods will be provided as additional exposures are conducted with cyfluthrin, pyrene, and trans-chlordane.

Activities for the first quarter 2011:

- Range finding tests indicate that pyrene and trans-chlordane are not sufficiently toxic to *Eohaustorius estuarius* to conduct TIE method development. Definitive tests will be conducted for pyrene and trans-chlordane to determine the LC-50.
- TIE Method Development will be conducted for cyfluthrin using both sediment and interstitial water.
- A second stressor ID workshop is planned for first quarter of 2011.

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

F. 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:

- Benthic workgroup meeting was held on October 20th to review progress to date.
- Bruce Thompson and his collaborators completed a draft manuscript titled “Benthic Macrofaunal Assemblages of San Francisco Estuary and Delta.”
- Work continues on the mesohaline assessment method report. A comparison of good/bad indicators in BPJ samples to good/bad indicators in reference vs. non reference samples has been conducted and tables based on presence/absence have been prepared. The workgroup concluded that the mesohaline report should await the completion of a gold standard assessment of the taxonomy in freshwater and estuarine environments.

Activities for the first quarter 2011:

- Aroon Melwani will finish the Mesohaline Assessment report.

- Bruce Thompson and the benthic team will complete the second manuscripts for review.

For more information, please contact the benthic workgroup leads, Bruce Thompson, at brucet@sfei.org, Aroon Melwani, at aron@sfei.org, or Sarah Lowe, at Sarahl@sfei.org

G. Status and Trends Sport Fish

Sportfish samples have been submitted to the laboratories and the results are starting to come in. We will review the data in the next quarter and begin summarizing our findings. The draft SWAMP/RMP sportfish monitoring should be prepared by the end of the year with a final report available in the first quarter.

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