



SAN FRANCISCO ESTUARY INSTITUTE

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RMP Technical Review Committee Meeting

December 10, 2014

San Francisco Estuary Institute

Meeting Summary

Attendees

TRC Member	Affiliation	Representing	Present
Nirmela Arsem	EBMUD	POTWs	No
Rod Miller	SFPUC	POTWs	Yes
Tom Hall	EOA, Inc.	South Bay Dischargers	Yes
Amy Chastain	City and County of San Francisco	CCSF	No
Eric Dunlavey	City of San Jose	City of San Jose	No
Bridgette DeShields*	Integral Consulting	Refineries	Yes
VACANT		Industry	NA
VACANT		Cooling Water	NA
Chris Sommers	BASMAA (EOA, Inc.)	Stormwater	No
John Prall	Port of Oakland	Dredgers	No
Rob Lawrence	US Army Corps of Engineers	USACE	Yes (By Phone)
Karen Taberski	SFB RWQCB	Water Board	Yes
Luisa Valiela	US EPA	US-EPA IX	Yes

*Chair

Guests and Staff

- Mike Connor (EBDA)
- Phil Trowbridge (SFEI)
- Jay Davis (SFEI)
- Rebecca Sutton (SFEI)
- Don Yee (SFEI)
- Adam Wong (SFEI)
- Amy Franz (SFEI)
- Warner Chabot (SFEI)
- Lester McKee (SFEI)

1 – Action: Introduction and Approve Agenda

The group verbally approved of the agenda. The order of items was rearranged so that the meeting went Items 1-7, 10, 11, 9, 8.

2 – Action: Approve Meeting Summaries from 6/17 and 9/23

Bridgette DeShields asked the group for feedback on the two TRC meeting summaries. Karen Taberski provided feedback on three items, which are represented in action items below. Tom Hall brought up action item number 9 on page 20 of the agenda packet, which opened a discussion on informing TRC members of workshops and other meetings prior to their occurrence. Luisa Valiela suggested that if there were an exhaustive RMP meetings calendar, encompassing more than just TRC, SC and Workgroup meetings, it would be the responsibility of committee members to attend or send representation to meetings in which they were interested. Phil Trowbridge explained that the 6/17 Meeting Summary had already been approved, but that he wanted official approval of the note added to page 8 of the packet that described a decision of the TRC made over email.

Items for Approval

Karen Taberski motioned that both Meeting Summaries be approved, Rod Miller seconded, and approval was unanimous.

Action Items

1. Phil Trowbridge
 - a. Work with SFEI staff to make schedule for upcoming RMP relevant meetings and workshops available to committee members. Possibly this could mean having a calendar of all meetings, not just TRC/SC/Workgroups. Additionally, make sure that final reports are announced and made available when they are complete.
 - b. Update the summary on page 14 of packet. 9/23 TRC Meeting, Items to Approve section. Tom Hall not Tom Mumley seconded the motion.
 - c. Update the 9/23 TRC summary on the top of page 15: The current cost of the margins sampling with MLML is 6 times less, Karen was not referring to Bay Protection sampling from 1994.
 - d. Page 19 of the packet, second paragraph: "Therefore, they cannot be released at the time", should be "Therefore, they cannot be released at the same time"
2. Tom Hall
 - a. At the BACWA Executive Board Meeting, bring up the need for a meeting with the Water Board about the available CTR data, how to truncate old data, and whether new CTR data are needed.

3 – Information: Steering Committee Report

Phil Trowbridge summarized the main items from the Steering Committee that were of interest to the TRC, highlighting the approved budget, future fee increases, fees for cooling water industry, and the charter development process.

With regards to the budget, there was a small discussion about the exclusion of funding for sampling and analysis of CTR parameters, with Tom Hall to follow up with BACWA and the Water Board at the BACWA Executive Board meeting on 12/19.

Work on the charter drew requests from TRC members to have involvement on those sections that would affect their committee. Jay Davis suggested that the draft charter would be sent out to TRC members and that they should pass their comments along to their respective SC members. The group also discussed how voting worked for the TRC, with the agreement being that there was always an attempt to reach a consensus, but voting was used sometimes. A desire to have a clearly defined method for voting was expressed. The group also felt that the structure of official representatives on the TRC should mirror the structure for the SC.

Jay began a discussion about the Pulse for 2015, and the SC's guidance to limit its scope and budget. His current idea is to present recent developments on the major pollutants with infographics, providing more detailed information on items that will be touched upon in the State of the Estuary report. Tom suggested a possible section on success stories in the Bay, describing why contaminants like copper, DDT, and cyanide were no longer of concern. The group seemed in favor of this idea; Jay will explore the possibilities.

Action Items

1. Phil Trowbridge
 - a. Share the draft RMP Charter with the TRC when it is ready for review with instructions to forward their comments to their SC representatives.

4 – Information: Planning Workshop Report

Jay Davis gave a quick summary of the Multi-Year Planning Meeting, and passed out a revised Appendix 1 table, detailing funding guidelines for RMP Special Studies. Regarding studies on ocean acidification, Luisa Valiela told Phil Trowbridge that he should follow up with Letitia Grenier about some ongoing research at the Gulf of the Farallones National Marine Sanctuary.

Action Items

1. Phil Trowbridge
 - a. Talk with Letitia Grenier regarding ocean acidification research in the SOTER and develop a proposal for some background ocean acidification research for the TRC to consider for 2016.

5 – Decision: 2015 Detailed Workplan

Phil Trowbridge provided a quick rundown of the major deliverables for the RMP for 2015. Luisa Valiela asked if the March and August targets for Margins design and sampling were realistic. Phil said yes, as long as there was some basic agreement after the discussion later in the meeting. Next, Phil outlined the redesign of the Annual Monitoring Report to just a report of sampling efforts, which should reduce costs. Additionally, there will be a manuscript on RMP influence on management decisions, and Phil asked if there was interest on the TRC for input/co-authorship. Karen Taberski expressed interest in contributing.

Tom Hall and Karen Taberski both expressed a desire for better communication when each of the deliverables was completed.

Action Items

1. Phil Trowbridge
 - a. Organize a group to assist with the manuscript on the RMP and its influence on management. Invite all TRC and SC members to participate.

6 – Information: Update on Data Management Activities

Amy Franz gave a presentation on the highlights of work completed by the Data Services and other Environmental Informatics collaborators during 2014. Processing of the 2013 Status and Trends and special study data generally met timeliness targets, and the new RMP QAPP is out for review. The CD3 tool (cd3.sfei.org) for mapping data from the SFEI Regional Data Center went live on the day of the meeting, Jay Davis described upcoming improvements including presets to quickly view often-requested RMP data within the tool. Tom Hall asked where continuous data were represented; Phil Trowbridge explained that they aren't currently in CD3, but an internal tool for nutrients continuous monitoring data visualization is being developed.

7 – Discussion: Next Steps for Developing Benthic Invertebrate Indicators

Phil Trowbridge asked for feedback on next steps for developing benthic indices for the Bay. The consensus was that benthic index development was a low priority and that no proposals for special studies on this topic should be prepared for 2016. Management actions on contaminated areas will mostly be performed in the polyhaline region, where there is already a functional index. The value of indices to understand impacts of contamination is confounded by the abundance of invasive species in the Bay and the temporal dynamics of the benthos in this estuarine environment. However, the group agreed that benthic abundance data had value and the RMP should continue to plan to collect these data in 2018 but should confirm with the TRC before actually doing the work.

10 - Information: Update on Workgroups and Scorecard

Phil Trowbridge gave a quick rundown on the red light items on the scorecard (Page 72 of the agenda packet - see the 11/13/14 SC Meeting Notes for additional details). Tom Hall asked about the copper and olfactory nerve work. Phil responded that NOAA has had some problems with their lab for water chemistry, but that the biological piece of the analysis is done. Phil asked for feedback on the Workgroup Activities summary (page 75 of the agenda packet), noting that he felt there was overlap between that document, the scorecard and the action items database. Mike Connor expressed satisfaction with the current version of the summary, noting that it seemed pared down from previous versions. Bridgette DeShields provided the example of the sturgeon plug work (Page 79) as an example of information that went beyond the scope of the deliverables scorecard, and suggested that the summary document helped prevent Phil and Jay Davis from fielding as many phone calls. The general group consensus was that the document was valuable. Phil will move forward with removing overlap and consolidation, but won't remove the level of detail found in the Workgroup summary document.

Action Items

1. Phil Trowbridge/Jay Davis
 - a. Follow up with David Baldwin at NOAA regarding the Copper and the Olfactory Nerve Study.

11 – Decision: Set next meeting date and agenda topics

Phil Trowbridge proposed meeting on the third Wednesday of the last month of each quarter with the exception of September 2015 which was moved to the fourth Wednesday to avoid a conflict with the State of the Estuary conference.

*Note: Following the meeting, Karen Taberski reported that there was a conflict with the proposed meeting date of March 18, which is the same date as the IEP Annual Workshop. Another meeting date will be proposed.

9 – Information: PCB-related Special Studies: 2014 Highlights and 2015 Planned Activities

Jay Davis outlined the new focus of the PCB strategy, to work on detecting the response to small tributary load reductions. He highlighted three required ingredients for that task: a strong linkage between loading and the chosen indicator, a significant reduction in load to provide the strongest possible signal, and baseline data before the reduction happens. He shared the plans for developing conceptual models and sampling 5 sites over the next three years. Sites will be selected over the next year. Bridgette DeShields expressed a desire to see all currently available data taken into account before site selection to avoid sampling at sites like Hunter's Point that are already well characterized.

Jay walked through an example of a potential site, the Emeryville Crescent area that receives stormwater from the Ettie Street Pump Station. He described possible indicators such as shiner surfperch, small fish, bivalves (*Macoma* specifically), passive samplers, and sediment. The budget of \$30k per margin unit for sampling fish and sediment included 3 locations within each unit per year, but that will need to be discussed. Mike Connor expressed concern that the proposed sampling areas are too small, and that there is too much drainage/mixing to be able to get information about loads. He said that a very rough mass balance needs to happen for a site proposal to see if there's any possibility of seeing the signal from the load. Luisa Valiela asked if using small fish as the indicator would ameliorate the sample area issue. Don Yee replied that small fish are better at representing a lifetime, rather than loading exposure. The group discussed some options for tracking invertebrate flux and particle tracking.

Mike asked about what management actions depend on the outcome of this work. Bridgette replied that it helps prioritize load management versus in-bay efforts. Jay added that even if in there wasn't a detectable short term change from load reductions, the argument can be made that over a longer time-scale those management actions can still make a difference.

Specific ideas:

- Compare the mass of PCBs in the sediment reservoir to the expected load reductions from stormwater.
- Research how far new particles move when loaded from stormwater.
- Use different PCB congeners as a way to distinguish between legacy contamination and ongoing watershed loads.
- Use tracers to measure sediment flux from the margin areas to open Bay areas. See previous work by Eric Adams and Keith Stolzenbach.
- As an initial step, look for gradients from stormwater outfalls.
- Use paint particles or mark a sediment horizon to understand net accumulation or loss of sediments from an area.

The PCB team will meet in 2015 and chart a plan for this research and invite outside experts to assist as needed.

8 – Decision: Proposed Bay Margins Sampling Plan

Don Yee presented the latest proposal for the randomized margins sampling, showing a new focus on the Central Bay. Focusing on a smaller area allows it to be characterized more quickly, and increases the density of sampling points, making it more likely to get close to "warm" spots. The tradeoff is that it provides less information for the rest of the system.

Karen Taberski started a discussion about weighting or excluding sites to focus more on the East Bay where management actions will take place, as compared to an area like Marin. Mike Connor added that land-use could be useful as part of the weighting calculation. Don said that while he understood the desire for weighting and exclusion, the targeted sampling that Jay Davis described does part of that work, and he wanted to avoid creating a single-purpose dataset. Purely random (not stratified random) is the most flexible design because it can be post-stratified many ways. The group seemed to agree that there was value from knowing what the ambient situation was in the margins, and that probabilistic sampling was the way to approach that.

Bridgette DeShields and Mike suggested that areas that were very well characterized from previous studies could be removed from the potential sampling frame. There was some discussion about other sources of data and concerns about depth of sampling and congener choice, but it was agreed that some data would likely be useable within to-be-determined guidelines.

In summary the group agreed that the RMP should move forward with probabilistic sampling of 40 sites in the Central Bay in 2015 and outlined the following next steps:

1. Pull in all the existing data for PCBs in the Bay and margin areas. The SQO database does not contain all of the sediment chemistry data. Evaluate whether the data can be used to investigate the following questions:
 - a. Is the distribution of data consistent with the conceptual model for PCBs in the Bay?
 - b. Are there any patterns with PCBs in margin sediment relative to adjacent land use?
 - c. How do the random stations for the margins fall relative to adjacent land use?
 - d. Identify areas that are sufficiently characterized already such that these areas might be excluded from random sampling.

- e. Examine how far PCB contamination extends from known sources.
2. Assemble subcommittee to look at weighting (by adjacent land use, different areas of Central Bay) and exclusion criteria (e.g., by grain size, by proximity to area with existing data). Karen and Bridgette offered to be on the subcommittee. Jay recommended that Don Stevens should be included in these discussions. After the meeting, Chris Sommers agreed to be on the subcommittee.
3. Look into the possibility of expanding the routine sampling frame for Status and Trends sediment sampling to include the margin areas and, therefore, slowly add more data at margin sites during the regular sediment cruises.
4. Prepare a revised proposal for the March TRC meeting.

Action Items

1. Don Yee
 - a. Evaluate whether other sources of data for PCBs in margin sediments (Envirostor, Geotracker) should be compiled and compile them if appropriate.
 - b. Set up subcommittee to look at the weighting and exclusion issues with the probabilistic monitoring design.
 - c. Work with Don Stevens to expand the sampling frame for Status and Trends sediment sampling to cover the margin areas.
 - d. Prepare a revised monitoring design for Bay margins sediments for the March 2015 TRC meeting.