



Bay RMP Technical Review Committee Meeting

December 14, 2017

San Francisco Estuary Institute

Meeting Summary

Attendees

TRC Member	Affiliation	Representing	Present
Mary Lou Esparza	Central Contra Costa Sanitation District	POTWs	Alternate for Nirmela Arsem
Rod Miller	SFPUC	POTWs	Yes
Tom Hall	EOA, Inc.	POTWs	Remote
Ross Duggan	SFPUC	POTWs	Yes
Eric Dunlavey	City of San Jose	POTWs	Yes
Bridgette DeShields*	Integral Consulting	Refineries	Yes
Chris Sommers	BASMAA (EOA, Inc.)	Stormwater	Remote
Shannon Alford	Port of SF	Dredgers	Remote
Ian Wren	San Francisco Baykeeper	NGOs	No
Richard Looker	SFB RWQCB	Water Board	Yes
Luisa Valiela	US EPA	US-EPA IX	Yes

*Chair

Guests and Staff

- Paul Salop - Aquatic Marine Sciences
- Winn McEnery - Aquatic Marine Sciences
- Jamison Crosby - Napa County (Remote)
- Ila Shimabuku - SFEI
- Jay Davis - SFEI
- Phil Trowbridge - SFEI
- Don Yee - SFEI
- Rebecca Sutton - SFEI
- Cristina Grosso - SFEI
- Amy Franz - SFEI

1. Introductions and Review Agenda

Phil Trowbridge welcomed members of the committee and Bridgette DeShields commenced introductions. No changes were made to the agenda. However, Item 5 was taken out of order and covered before Item 4.

2. Decision: Approve Meeting Summary from September 14, 2017 and confirm/set dates for future meetings.

No changes were made to the September 14 meeting summary before approval.

Jay Davis reported on an action item from the September Technical Review Committee meeting which was to decide on whether to monitor for legacy pesticides in 2019 S&T sport fish monitoring. He presented RMP data on legacy pesticides in fish and shellfish collected since the data cut-off for the last 303d listing cycle (2006) in relation to two thresholds set by the Office of Environmental Health Hazard Assessment (OEHHA): fish contaminant goals (FCGs) and advisory tissue levels (ATLs). FCGs are often much lower than the ATL because it assumes a cancer risk threshold of 1:10⁶ versus 1:10⁴ for the ATL. The ATL also accounts for the beneficial effects of fish consumption. The fish tissue legacy pesticide concentrations measured since 2006 were below the lowest ATL for consuming 7 meals per week but sometimes above the FCG. Given that the tissue concentrations for legacy pesticides were already below the lowest ATL, the TRC decided not to add legacy pesticides to the analyte list for S&T sport fish monitoring in 2019.

Decision:

- Richard Looker motioned to approve the September 14, 2017, TRC meeting summary. Eric Dunlavey seconded the motion. The motion for approval was carried by all present members.
- The RMP should not monitor for legacy pesticides in 2019 S&T sport fish monitoring. (Consensus)

Action Items:

- Finalize the September 14, 2017, TRC meeting summary and post to the website and public-meetings folder. (Ila Shimabuku, 12/20/17)

3. Information: MYP/SC Meeting Summary from November 1, 2017

Phil Trowbridge presented a few of the approved items from the November Multi-Year Planning Workshop and Steering Committee Meeting. He asked Committee members to email him if they are interested in participating in the sediment workgroup meeting on January 31, 2018 or if they wanted to be part of the Exposure and Effects Workgroup strategic planning.

5. Information: 2017 Copper and Cyanide Water Concentrations Relative to Site-Specific Objectives and Latest Aquatic Toxicity Results

Ila Shimabuku presented the most recent 3-event copper and cyanide rolling averages as well as the water toxicity results from the 2017 S&T Water Cruise. The rolling averages for both copper and cyanide still fall below the site-specific objective (SSO) trigger levels in all regions of the Bay. However, three of the five copper rolling averages rose from the previous average and were as close as 92% of the trigger level in Lower South Bay. There was no aquatic toxicity shown for either end-point (growth and survival) at any sites.

Don Yee noted that Brooks Applied Laboratories (BAL) used a new copper analysis method on the 2017 Water Cruise samples which involved switching from using reductive precipitation to column chelation. Don estimated that his method change could affect the results by ~15%. Don had asked BAL to analyze a few samples using the old method to compare results.

The TRC requested the following additions to the Water Cruise update slides:

- Plot dissolved zinc concentrations alongside the copper rolling averages and Guadalupe River flow versus water year to tease out whether the increases were just for copper or for metals in general and the possible effects due to the high-flow water year in 2017.
- Plot the individual copper concentrations by year alongside the rolling averages to view the variability in the distribution.
- Include a table showing the SSOs alongside the trigger levels for every region of the Bay.
- Add information about changes in copper analytical methods to the slides. Include the results from split samples analyzed by BAL using old and new methods.

Action Items:

- Upload powerpoint to RMP web page after data and slides have been finalized. (Ila Shimabuku, 1/15/18)
- Add agenda item to March TRC meeting: Discuss the differences in the names and boundaries of the Bay segments used by the RMP, Water Board, and USGS. (Phil Trowbridge, 3/1/18)

4. Decision: Recommend Purchase of Acoustic-Release Systems for S&T Bivalve Monitoring

Winn McEney and Paul Salop of Aquatic Marine Sciences (AMS) presented several options for acoustic-release systems for biennial bivalve sampling. The need for a new sampling technology came as a result of disappearing pilings at the historic Yerba Buena Island site. Winn and Paul explained that, though the samplers could cost up to \$73,350, the samplers should save the RMP ongoing costs due to the decreased number of divers and sampling days needed to complete the effort. The acoustic-release systems would also provide flexibility on when and where the bivalves could be deployed and retrieved, and these systems could be used for other RMP efforts.

After discussing the samplers and permits for bivalve sampling, the Committee agreed that Paul and Winn should proceed with investigating the RMP's purchase of acoustic-release samplers. The TRC expressed a preference for systems that would not leave anchors on the Bay floor after the deployment. Ross Duggan shared that these systems have a 10% failure rate and half of these failures are due to line fouling. AMS will talk to SCCWRP about their experience with these systems.

Action Items:

- Look into moving two bivalve sites outside of State Lands Commission territory. (Paul Salop, 1/1/18)
- Present a proposal for the purchase of an acoustic-release system to the SC in January. The proposal is to include budgeting and permitting information. (Paul Salop, 1/24/18)

6. Information/Decision: Fire Response Monitoring

a) Status of Proposal to Monitor Stormwater from North Bay Fires

Phil Trowbridge quickly summarized the status of post-fire monitoring, explained that the Steering Committee had approved the revised proposal and \$36,000 budget, and mentioned that Becky intends to present preliminary findings to the Emerging Contaminants Workgroup in April. Rebecca Sutton clarified that samples from a second storm event will be collected and archived if data from the first storm event reveal a need for further analysis.

b) Add Dioxins to 2018 Bird Egg Monitoring for Fire Response

Jay Davis proposed that dioxins be added to the analyte list for the 2018 bird egg monitoring effort for status and trends to detect a dioxin signal that could result from the 2017 North Bay fires. Additionally, archived bird-egg samples from 2016 could be analyzed for dioxins as well.

The discussion revolved around whether the proposed non-targeted analyses would capture a dioxin signal and, if so, whether a positive signal would have any management implications. Luisa Valiela stated that studies that help determine pathways for dioxins released by fire events would be useful but bird egg monitoring would not provide that information. After some discussion, the TRC decided that dioxins should be left off the analyte list for 2018 bird egg monitoring but that these compounds should be part of the 2019 S&T Sport Fish Monitoring (as already planned). After the dioxins synthesis report is completed, the TRC will evaluate whether bird eggs should be a second matrix (in addition to sport fish) in which to measure dioxins as part of ongoing Status & Trends monitoring.

Decision:

- Do not add dioxins to the analyte list for 2018 bird egg monitoring for fire-response purposes. (Consensus)

Action Items:

- Add the North Bay fires event to the "Summary of RMP Program Changes" spreadsheet. (Ila Shimabuku, 12/20/17)
- Consider an article on the Top Ten water quality events in the upcoming RMP Update (and future reports) that includes significant water-quality-related events like substantial RMP findings, excessive rainfall or drought, fires, Dungeness crab closures, shark die-offs, and others. (Jay Davis, 3/1/18)

Lunch

7. Discussion: Laboratory Intercomparison Study Plans

Don Yee commenced the laboratory intercomparison (IC) discussion by reviewing how SCCWRP, and many of their partner labs, have planned to incorporate the RMP in their IC studies. TRC members agreed that the RMP should take the next steps to participate in SCCWRP's IC studies and gave the following suggestions in response to Don's questions:

Should we require RMP labs participate in the SCCWRP IC Study?*

- Require that labs used by the RMP participate in IC studies for selected target analytes and suggest that they participate for all others. Selected target analytes for sediment are PCBs, PAH, and Hg. Selected target analytes for fish tissue are PCBs, Hg, & Se. Discuss adding PBDEs as a target analyte for both matrices.

Should other labs used by RMP members also participate?

- Ask RMP partner labs to complete a survey about other IC studies they are involved with.
- Go to the Bay Area Clean Water Agency lab committee meeting and scope out other possible participating labs used by RMP participants.
- Labs used by BASMAA may be interested but will need more info on how much pro bono work will be required of participating labs.

Where do we get material to send

- Sediment: As long as SCCWRP uses similarly fine sediment with contaminants concentrations that are roughly comparable, the RMP should not contribute a Bay sediment sample.
- Fish: Jay will continue to communicate with SCCWRP about required fish tissue.

How should an IC study for bird egg samples be handled? Bird egg samples will be analyzed by a new lab in 2018.

- Wait for outcomes of the SCCWRP sport fish IC study and any potential method updates/modifications before planning this study.

Don Yee also reviewed some preliminary data from the Se IC study conducted between three labs using 2017 Water Cruise samples. Results were acceptably consistent between labs for dissolved selenium concentrations but not for particulate. Don Yee will delve more into lab communications and methodology to determine the possible causes of disparate results.

Decision:

- Proceed with next steps to participate in SCCWRP's IC studies. (Consensus)

Action Items:

- Implement the TRC's suggestions regarding lab intercomparison studies. (Don Yee, Phil Trowbridge, Jay Davis, 1/1/18)

8. Information: Informatics and Data Services Update

Amy Franz updated the TRC on any and all system improvements the data services team had implemented in 2017 and those planned for 2018. She also provided an overview of the status of current 2017 datasets and reviewed the planned 2018 analyses. Cristina Grosso continued Item 8 by demonstrating the Contaminant Data Download and Display (CD3; <https://cd3.sfei.org>) tool and its newly implemented features.

The TRC gave the following suggestions to the informatics and data services team:

- Add penalty clauses to contracts for late delivery of results
- Gather data on who uses CD3 (not just number of visitors)
- Determine how the SFB RDC compares to other RDCs in terms of visitors and use
- Ensure the link to the CD3 survey is functioning correctly
- Sort the analyte drop-down list by the frequency of use
- Add links to the original RMP data report to data downloads
- Add a “Suggestion Box” link next to the “Contact Us”
- Add an option to view data based on Bay regions defined in the Basin Plan

Richard Looker proposed an idea to promote the use of CD3 and its data as well as extracting useful analyses: the RMP could sponsor a CD3-based data analysis challenge to be conducted through local universities. The RMP would offer a nominal prize to entice participation and steer the challenge toward data analyses that would be useful to the RMP. The challenge objectives could be changed year to year in order to fit current RMP data-analysis interests.

Action Items:

- Include explicit financial penalties for overdue datasets in future RMP laboratory contracts. (Phil Trowbridge, 1/1/18)
- Present any steps taken on Richard’s data-analysis project to the TRC. (Cristina Grosso, 3/1/18)
- Implement the TRC’s suggestions for informatics. (Cristina Grosso, 12/31/18)

9. Information: Plans for the 2018 RMP Update Report, Annual Meeting, and Upcoming Reports & Communications Products

Jay Davis began the communications item by soliciting input on selecting a topic to highlight as a key publication in the 2018 RMP Update. One member suggested highlighting the Emeryville Crescent Report due to its multidisciplinary aspect which could inspire interest from a diverse group of readers. Jay requested that the TRC send him any additional input.

Jay Davis then asked the TRC to prioritize three of his proposed session topics for the Society of Environmental Toxicology and Chemistry conference to be held in November 2018. The TRC selected (1) fires and floods, (2) toxic pollutants in the San Francisco Bay and Delta, and (3) algal toxins.

10. Information: Status of Deliverables and Action Items

Phil Trowbridge quickly summarized the status of RMP deliverables and action items.

11. Discussion: Plan agenda items for future meetings

In addition to routine first-quarter TRC items, Members wanted to discuss the Bay regions and any progress on the CD3 data-analysis contest idea.

12. Discussion: Plus/Delta

No plus/delta items were raised.

Adjourn