



RMP

REGIONAL MONITORING
PROGRAM FOR WATER QUALITY
IN SAN FRANCISCO BAY

sfei.org/rmp

Bay RMP Technical Review Committee Meeting

September 22, 2021

Meeting Summary

Attendees (all participants remotely attending)

TRC Member	Affiliation	Representing	Present
Yuyun Shang	EBMUD	POTW	Yes
Mary Lou Esparza	Central Contra Costa Sanitary District	POTW	No
Tom Hall	EOA, Inc.	POTW	Yes
Ross Duggan	City and County of SF	CCSF	Yes
Anne Hansen Balis	City of San Jose	POTW	Yes
Bridgette DeShields*	Integral Consulting	Refineries	Yes
Chris Sommers	BASMAA (EOA, Inc.)	Stormwater	Yes
Shannon Alford	Port of San Francisco	Dredgers	No
Richard Looker	SF Bay Regional WQCB	Water Board	Yes
Luisa Valiela	US EPA	US EPA-IX	Yes
Ian Wren	Baykeeper	NGOs	Yes
Tessa Beach	US Army Corps of Engineers	USACE	Yes

*Chair; alternates in gray and italicized

Staff and Others

- Jay Davis - SFEI
- Melissa Foley - SFEI
- Don Yee - SFEI
- Martin Trinh - SFEI

1. Introductions and Review Agenda

Melissa Foley opened the meeting with a round of introductions, introducing SFEI's new Environmental Analyst, Martin Trinh. Melissa followed by giving a brief review of the day's agenda.

2. Decision: Approve Meeting Summary from June 23, 2021, and Confirm/set Dates for Future Meetings

Melissa asked the group for any final comments on the previous meeting's summary. Receiving no comments, she continued to confirm the dates for upcoming meetings. The dates of the upcoming Steering Committee meetings were confirmed to be October 20, 2021, and January 26, 2022. TRC members were invited to attend the Multi-Year Planning meeting preceding the SC meeting on October 26; the MYP meeting will be from 9 AM-12 PM. The next TRC meeting was confirmed for December 9, 2021. Melissa Foley proposed March 23, 2022, and June 22, 2022, as future meeting dates. Noting no conflicts by any present TRC members, Chris Sommers motioned to approve the meeting dates. The motion was carried by all members.

Action Item:

- Send out calendar invites for March, 23, 2022 and June 22, 2022, TRC meetings (Martin Trinh, September 24, 2021)

Decision:

- Chris Sommers motioned to approve the meeting summary. Luisa Valiela seconded the motion. The motion was carried by all present members.

3. Information: SC Meeting Summary from July 21, 2021

For this agenda item, Melissa began to review the July Steering Committee meeting by relaying feedback from the SC on the TRC's Special Studies proposals. The SC largely approved what the TRC had put forth, with the addition of one PCB study. The Water Board and EPA are interested in moving the PCB work forward more quickly to inform the TMDL update, so the first year of the prey fish study in Steinberger Slough and Redwood Creek will be funded. Additionally, penalty funds (MMP) will be used to fund the second year of the sediment study in Whale's Tail marsh.

Melissa proceeded to review the RMP fee proposal for the financial years 2023 through 2025. Melissa reminded the TRC that there had been a temporary hold on fee increases for the 2022 calendar year due to the economic circumstances caused by the pandemic. Melissa recapped the discussion from the subgroup meeting where representatives from all discharger groups agreed to a 3% increase each year for the 2023-2025 time period, which will be voted on at the October SC meeting.

A small subgroup of the SC and TRC worked together via email to determine the agenda topics for the 2022 Multi-Year Planning Workshop. Key agenda items for the upcoming MYP Workshop

include discussion and implementation of the Status and Trends review, a review of the cross-workgroup coordination and integration efforts, and a high-level discussion about workgroup structure and funding. Melissa noted that Jay gave an overview on the Wetland mercury monitoring project, which is connected to both the Bay Regional Monitoring Program as well as the Wetlands Regional Monitoring Program, but not technically part of either program. Melissa wrapped up the review of the July SC meeting by announcing the Annual Meeting agenda had been finalized.

Responding to questions about the status of the San Francisco Bay Restoration Act, Luisa informed the group that the bill was now part of the competitive grant process, rather than being a separate funding stream. As the bill is now competing with others and is not likely to deliver a large amount of money to the Bay in FY 2022, the Multi-Year Planning Workshop will not focus on identifying topics for potential funding.

Action Item:

- Send out a one page PDF of the studies funded for 2022 (Melissa Foley, September 25, 2021)

4. Discussion: S&T Review Update

Melissa gave an update on the ongoing Status and Trends review, beginning by discussing the recent Biota expert meeting. This was the third and final matrix meeting with experts, following earlier meetings for water and sediment. Six out of eight experts were in attendance at the meeting, which followed two meetings with the Council of Wisdom to develop draft sampling designs. The goal of the expert meeting was to obtain feedback on contaminants and biota of interest in addition to discussing the draft sampling design. Melissa has been working with Tom Grieb to obtain feedback from advisors.

Melissa gave a brief review of the suggested designs for each biota type. The current design for sport fish sampling will remain largely the same: sampling every five years at seven core stations with the addition of PFAS to the regular suite of analytes. Legacy pesticides and dioxins will also be monitored each sampling round - biota are the only matrix still including pesticides (having been discontinued in water and sediment) and the only matrix including dioxins.

For bird eggs, the proposal is to maintain cormorant monitoring and discontinue tern monitoring. Sampling would be conducted every three years at three core stations throughout the Bay. Per recommendation from the Emerging Contaminants workgroups, PBDEs will be monitored in 2022 for a final time, while PFAS analysis will continue.

The bivalve design will undergo significant change, forgoing sampling in channel stations in favor of switching to archiving tissue from shore-based collections for NMS. Jay noted that samples will be useful for PAHs and CECs, using PAH data to establish a baseline for oil spills. Jay will coordinate with the stakeholders he contacted last year to help develop an appropriate monitoring/collection design. Interested parties include Maureen Dunn and staff in the NRDA

unit at the California Department of Fish and Wildlife. Once input has been received, it will be presented back to the TRC.

Prey fish will be added to Status and Trends in the future. In the meantime, potential Special Studies will be considered through piggybacking other collection efforts such as in Priority Margin Units (PMU), in the Lower South Bay with UC Davis fishing efforts, and in wetlands with wetland restoration project fish monitoring. Status and Trends sampling will be focused at pathway-influenced near-field stations for CECs.

Harbor seals will follow this same format, beginning as a special study for eventual inclusion into Status and Trends. The RMP has collected seal tissue samples over the years. A special study has been proposed for 2023 to inform longer-term designs. This would most likely be a two to three year pilot study in conjunction with the Marine Mammal Center. The ultimate goal of this study is to include harbor seals in Status and Trends with sampling done every five to ten years, including a long analyte list. Multiple members commented on the value of harbor seals as charismatic megafauna and the communication value that would follow. On this subject, Jay added there has been interest from the advisors and the Council of Wisdom in sampling every five years, as opposed to every ten years. Melissa added this was the same situation for sediment, with many finding a ten year sampling cycle too low in communication value.

Melissa concluded this agenda item by giving a brief timeline of the remaining process. Prior to the Synthesis meeting on October 7th, there will be a Council of Wisdom meeting to work on the designs and budget. A draft design will be presented at the MYP Workshop on October 20th, providing a chance to examine the revised designs and accompanying budget implications. A revised design will be brought back to the TRC at the December meeting.

Chris commented that he enjoyed the smaller group discussions being conducted with experts and advisors. However, he expressed concern over the budget and the ability to fund all of these studies, warning the group of potential cuts the Program might have to make. Melissa elaborated that, with respect to the previous design, water will have a higher budget while sediment will have a lower budget. Biota will have a slight increase in budget, although the revised bivalve design will help save money. Additional funds will be recovered by dropping terns from the bird egg studies, but this will be offset by the addition of harbor seals and prey fish to the Status and Trends design.

Chris commended Jay and Melissa on finding a great group of technical experts, particularly Tom Grieb and his efforts to gather additional post-meeting input from advisors, and suggested reflecting on lessons learned to inform the next round of review. Documents containing detailed comments from advisors have been generated for the sediment and biota matrices. Tom Grieb has been a proponent of documenting these lessons learned. Luisa seconded this sentiment. Jay explored the subject of documentation further, noting that the advisors are in favor of ensuring documentation of all the processes, conceptual models, and statistical analyses. However, Tom Mumley has pushed back on such extensive documentation, suggesting that there are better uses of time. Jay thinks some degree of documentation is essential. The TRC

was largely in support of documenting the effort with enough detail that someone in ten years time would be able to ascertain what was done in this review and why.

Action Item:

- Gather small group for Bivalve design review (Jay Davis, January 31, 2022)

5. Discussion: Communications Update

Jay began the agenda item by reviewing the status of the RMP Update. A completed draft of the Update has been turned over to the design team for review, with Jay sharing some design ideas with the TRC group. Jay noted this Update would be released in an electronic format, with hard copies available by request. Jay thanked those who provided feedback, but reminded the group that feedback from TRC members is essential to creating quality products.

Jay then announced that the Annual Meeting agenda had been finalized, with Tom and Jay working to confirm the final panel for the General Topics session.

Next, Jay opened the discussion to determine the topic of the next Estuary News. He reviewed past editions and asked the group for ideas for the December edition and beyond. Typically, the TRC provides suggestions and the SC makes the final decision. Potential topics of interest include 6PPDQ, moored sensor work, PFAS in wastewater, stormwater analysis, and detailing the scientific process behind RMP studies. Luisa noted that a new article on 6PPDQ in ES&T is going to generate another wave of interest, so that could be a timely topic. Luisa was particularly excited about the prospect of doing a spotlight on the people and processes of SFEI from a diversity, equity, and inclusion perspective: framing the work being done at SFEI and those supporting that work. The group was also supportive of focusing on the effects of the drought, given that the next Estuary News will be released in December during the wet season. Bridgette DeShields proposed connecting the drought, fires, and climate change to water quality data. Jay suggested 6PPDQ, as putting together information on drought would be a bigger job.

Jay followed up by asking the group to help brainstorm for the next Pulse as well. For the 2022 Pulse, proposed topics are the Status and Trends redesign, the 50th anniversary of the Clean Water Act (CWA), effects of climate change on water quality, CECs, and COVID-related topics. The 50th anniversary of the CWA as a nuanced topic, highlighting the good while identifying potential shortcomings, resonated strongly with the group. Jay noted that Alexis Strauss-Hacker had written a piece in the 2007 Pulse about the CWA's 35th Anniversary, adding that he could potentially recruit authors from the EPA or Water Board. Another topic of interest was wastewater reuse, particularly concerning the drought and water management strategy.

Given the interest in determining the Pulse topic, Jay will form a small group to continue discussion on this, with Richard, Tom Mumley, Luisa, Chris, Yun, and Ian volunteering or being suggested to join. Following that group meeting, this topic will be revisited at the next TRC meeting.

Action Item:

- Form small group to discuss ideas for 2022 Pulse (Jay Davis, December 31, 2021)

6. Information: Status of Deliverables and Action Items

Melissa noted the list of incomplete works was longer this time around due to Martin adding the 2021 deliverables. Overdue deliverables of note include the ethoxylated surfactants study report, which is currently being reviewed by the project team and is due out in October; the advanced data analysis report will be wrapped up by Lester McKee by November; and the Quality Assurance Project Plan (QAPP) that is currently awaiting lab input.

Project that have near-term upcoming due dates include data management for the North Bay selenium project, which is done at two year intervals (2019-2020); the ongoing SEP USGS sediment flux study at Benicia Bridge; and the North Bay margins sediment data analysis and report that Don Yee is leading.

Projects that have been delayed are the 2020 Quality Assurance summary report due to slower than expected receipt of data from analytical labs; the bisphenols in wastewater study which is awaiting final data; and the 2021 stormwater data which encountered contract issues, so samples had not been processed.

Recently completed projects can be found in the agenda package bibliography and include the Sportfish PMU report funded as by SEP funds, the North Bay fire memo and manuscript, and the 2019 Quality Assurance Report.

Melissa concluded the item by noting work was being done to update SFEI's RMP and Clean Water webpages. Luisa inquired whether this was an effort to improve user friendliness and/or data entry. Melissa clarified this effort was primarily focused on improving user accessibility and navigation, streamlining the process to access information. This effort was based on recommendations from the Steering Committee. Luisa recommended adding a data dashboard that could quickly display easily digestible key findings (similar to what the RMP has at the end of the Pulse).

Action Items:

- Update SEP list (Melissa Foley, October 31, 2021)
- Update RMP website (Martin Trinh, October 31, 2021)

7. Discussion: Plan Agenda Items for Future Meetings

Melissa previewed topics of interest to discuss at future meetings, including an update from the data services team and assessment of the Status and Trends review program implementation. Jay indicated that he would be ready to speak about the Pulse following some additional subgroup meetings, with the approval of the SC.

Luisa checked in with the group regarding the pandemic and the status of future meetings, inquiring if the group would ever meet in person again. Ian recognized this would be a good opportunity to evaluate what has worked in the pandemic as well as what does not work. Yun indicated she could share the experiences of EBMUD. Chris indicated that he would like an NMS update, with Ian suggesting that Dave could give the update he recently gave to the BACWA Board.

Richard brought up that talent retention should be a topic of discussion, noting the troubling trend of modelers and other staff on the NMS team leaving. Richard stressed that this is a high priority issue as experienced modeling staff leaving leads to loss of continuity, undermining progress and compromising the quality of work. With cost of living being the chief concern for many staff, Richard encouraged the group to become more creative in incentivizing staff to stay. Chris suggested encouraging remote work. Other potential solutions lay in salary adjustments and creating different selection criteria. Other members suggested that individuals should not be solely responsible for any one project. Jay and Melissa will bring this to the Steering Committee and SFEI management.

8. Discussion: Plus/Delta

Overall, the group was commended for their sustained effort and focus throughout the day, with Luisa commending the group for being so efficient during this meeting.

9. Information: Preview of Annual Meeting Presentations

Senior RMP members, Jay Davis and Melissa Foley, practiced their presentations for the upcoming RMP Annual Meeting, soliciting feedback from the TRC.

Jay presented first on the sport fish data, beginning with historical background on the Sportfish workgroup in the RMP. Jay proceeded to outline the role of the Sportfish group in establishing TMDLs and the direct connection to human health. Jay then overviewed the contaminants commonly found in Bay species, going into detail about spatial trends and observations for various analytes and species. Jay concluded by sharing recent environmental justice efforts, focused on tribal and subsistence fishing with high consumption groups. He gave a brief overview of the community level monitoring being conducted throughout California. Ian and Luisa both liked Jay's choice to conclude the talk with the EJ efforts. Luisa suggested that Jay discuss the causes for a lack of trends for PCBs and mercury at the beginning of the talk rather than the end.

Melissa concluded the meeting by presenting on long-term water quality trends in the San Francisco Bay over the last 30 years. She began by giving background on increasing nitrogen loads in the Bay, highlighting concerns of eutrophication. Melissa then reviewed a variety of methods of evaluating trends as well as generalized additive models. She then proceeded to review results for chlorophyll and gross primary production along spatial and temporal scales,

and concluded by posing the question of what was driving these trends. Yun suggested using all Publicly Owned Treatment Works (POTW), not just the top five. For POTW TIN discharge, Yun provided this [report](#) and requested a copy of the slides for EBMUD as well as BACWA. Ian suggested getting to the goals/interest slides more quickly with Luisa seconding this notion. Luisa suggested cutting text from some of the slides. Ian also noted the data for sites 34 and 36 looks particularly low. Tom Hall strongly encouraged including the complete chlorophyll data set up to 2020, with emphasis on the inclusion of this data changing the framing of the evident trends.

Adjourn