



Bay RMP Technical Review Committee Meeting

June 13, 2019

San Francisco Estuary Institute

Meeting Summary

Attendees

TRC Member	Affiliation	Representing	Present
Nirmela Arsem	EBMUD	POTWs	no
Mary Lou Esparza	CCCSD, BACWA	POTWs	yes
Tom Hall	EOA, Inc.	POTWs	no
Anne Hansen	City of San Jose	POTWs	no
Bridgette DeShields*	Integral Consulting	Refineries	yes
Chris Sommers	BASMAA, EOA	Stormwater	yes
Shannon Alford	Port of SF	Dredgers	no
Ian Wren	San Francisco Baykeeper	NGOs	no
Richard Looker	SFBRWQCB	Water Board	remote
Luisa Valiela	USEPA	US-EPA IX	yes
Jim Mazza	USACE	USACE	no
Irene Lui-Wong (alt)	EBMUD	POTWs	yes
Ross Duggan	City of SF	POTWs	yes
Simret Yigzaw	City of San Jose	POTWs	yes

*Chair

Guests and Staff

- Jay Davis - SFEI
- Melissa Foley - SFEI
- Nina Buzby - SFEI
- Ila Shimabuku - SFEI
- Jing Wu - SFEI
- Scott Dusterhoff - SFEI
- Liz Miller - SFEI
- Diana Lin - SFEI
- Don Yee - SFEI
- Cristina Grosso - SFEI

1. Introductions and Review Agenda

Melissa Foley allowed time for introductions and noted that the meeting would have been Nirmela Arsem's last before retirement. In her place Irene Lui-Wong will be the representative from EBMUD temporarily.

2. Decision: Approve Meeting Summary from March 14, 2019 and confirm/set dates for future meetings

The Committee members had no comments on the meeting summary and no additional changes were made to the March 14th meeting summary before approval.

Bridgette DeShields asked the group for any conflicts with future meetings, of which there were none. Melissa Foley also reminded the group of the archive purge memo that was sent out February 15th as suggested at the previous TRC meeting.

Decision:

- Ross Duggan motioned to approve the March 14, 2019, TRC meeting summary. Luisa Valiela seconded the motion. The motion for approval was carried by all present members.

3. Information: SC Meeting Summary from April 30, 2019

Melissa Foley briefly summarized the events of the last Steering Committee meeting, which addressed plans for the upcoming annual meeting and Pulse of the Bay publication. In line with this topic, Jay Davis reminded committee members that authors/contributors to articles that drafts are due at the end of the month.

Melissa also noted that Don Yee gave the SC an update on the DMMO PCB data dive, a SEP funded project that required more effort than initially expected due to high amounts of "non detects" (ND). Two strategies were proposed to address this obstacle - replacing NDs with either the MDL or lowest recorded detection found in the area. The group also heard about Dave Senn's update on the nutrient program to the SC covering their recently updated 10 year science plan. Melissa explained that the main future work for the program will focus on modeling nutrient sources.

The TRC appreciated the summary and suggested that the group should receive a similar update from Dave Senn at a future meeting.

4. Discussion Presentation of Special Studies Proposals Recommended by Workgroups

Melissa explained to the Committee that this item would be an opportunity to introduce proposals and allow time to ask workgroup leads any questions. Following this item the group would have more time to decide how to prioritize study funding. Melissa thanked the TRC members for attending the meetings, with special kudos to Luisa Valiela who attended all six meetings (8 days total). Bridgette DeSheilds who, along with Richard Looker and Mary Lou Esparanza, attended four of the meetings noted that the meetings were well structured and both this and the TRC attendance would make the task of prioritization much easier.

Melissa then outlined that the task for today would be prioritizing roughly \$1.8 million in proposals to \$1.2 million by fairly allocating the money amongst workgroups. Different to last year's 100% margin, only 50% of the funding requests needed trimming. After showing the group a summary table of studies, already prioritized by each workgroup, Melissa identified the three types of projects proposed. These include strategy funding, which go towards coordinating workgroup meetings and/or writing strategy documents. The next two types of proposals include multi-year studies and completely new ideas. Melissa noted that multi-year studies wouldn't always produce products at the end of each year (i.e., not continuing funding for multi-year CEC stormwater monitoring would result in the previous year's data being of little use for the program).

The discussion then moved on to the budget itself - with Melissa noting that RMP core funds amount up to roughly \$1 million plus an additional \$270,000 of AMR funds. Chris Sommers asked about the constraints related to AMR funding, which normally are only allocated to emerging contaminants work. Chris asked if microplastic proposals can make use of the funds. SFEI attendees were unsure of the answer and Melissa agreed to look into the topic.

The group then discussed the balance of funding multi-year studies, but keeping in mind that these would take up a large portion of funding and may not leave room for new projects. Melissa Foley brought up the point that the continuation of special studies makes the funding stream seem more like RMP Status and Trends efforts. Chris Sommers noted that it was a TRC recommendation to stretch out the CECs in stormwater special study over multiple years. This project is the sort of study that is time sensitive as it requires the full 3-year effort in order to produce a useful end product.

Conversely, the multi-year efforts looking at PCBs in Priority Margin Units (PMUs) is not quite as time sensitive given slow trend detection rates.

The TRC members then had a few clarification questions while all WG leads were in the room. These included a point from Chris Sommers wondering if any studies that aren't funded this year would incur a cost. Jay Davis responded that the PCB Steinberger Slough proposal would fall into this category as it currently has a significant match (\$60K) from Stanford University. Postponing the efforts may result in a loss of this funding. Committee members also brought up the topic of aligning efforts with management goals - a topic of discussion at multiple workgroup meetings. Jay Davis responded specifically concerning the PCB group, noting that there is currently not a lot of clarity related to revising the PCB TMDL.

Bridgette DeSheilds briefly mentioned the funding request from the nutrients team, noting that in past years the TRC has just provided the program with one lump sum that the NMS can then divide the funds between moored sensors and ship-based monitoring as they see fit. The other TRC members agreed with this approach, especially since the request was quite large and significantly above the planning budget.

Action Items:

- Check with Tom Mumley about which contaminants AMR funds are specific to (Melissa Foley, 8/13/19)

5. Decision: Recommendation for Special Studies for 2020

Chris Sommers started off the item by asking the group if there were any WGs that may go dormant for a year. Committee members did not immediately think of any, although Melissa brought up the question of whether to maintain the microplastic workgroup (MPWG) on it's own or have the emerging contaminants workgroup (ECWG) absorb it again. The reasoning for the latter being that foundation funding (Moore Foundation) would end soon. Jay Davis and others noted that microplastic development efforts are in progress, has a key group of advisors, and a lot of public interest and momentum. Additionally the ECWG meeting already requires two days to fit in everything, and adding microplastic efforts back in would be yet another scheduling challenge.

To begin prioritization, Bridgette DeShields suggested allocating funds for all workgroup strategy proposals, which the group supported. The next decisions related to the \$270K AMR funds that would be used to fund only ECWG proposals. Simret Yigzaw suggested using RMP core funds to support ECWG strategy and save the AMR funds for actual

study proposals. The TRC agreed to prioritize CEC stormwater monitoring, bisphenols in effluent, and bisphenols in sediment efforts. Their reasons for not funding the sunscreens and pharmaceutical proposals include the lower concern level with sunscreens and pharmaceuticals and their ability to stand as SEP projects.

Given the small number of proposals from the Selenium and PCB workgroups, they were the next studies discussed. The TRC agreed to fund the North Bay selenium monitoring, noting that efforts may be incorporated into Status and Trends down the line. Additionally, the members decided to prioritize the Steinberger Slough PCB monitoring because of the possible management actions in the area and matched funding from Stanford.

Concerning the nutrients program, the TRC agreed that funding both the sensor and ship-based monitoring requests (\$355K and \$165K, respectively) wasn't affordable. Bridgette DeShields suggested allotting a \$250K lump sum as was done last year, which the members agreed was a good solution. The discussion then briefly turned away from funding decisions, with the attendees discussing the nutrient program's growing budgetary needs.

The discussion surrounding the microplastic prioritization was rather brief, with the whole group in agreement that the conceptual model work should be prioritized. The same unanimous decision was shared for delaying sport fish analysis, given that the samples would already be archived.

The proposals from the remaining two workgroups - Sources Pathways and Loadings (SPLWG) and Sediment (SedWG), were discussed in tandem. Initially the top two proposals, aside from strategy funding were suggested for funding (SedWG - Update of Erosion and Deposition and Sediment Flux, SPLWG - POC reconnaissance and Regional Model Development). The group then paused to go back and see if the remaining funds should go to any other workgroups. The remaining options, apart from the SedWG and SPLWG studies, were funding the ECWG pharmaceutical proposal and/or the microplastic in sport fish analysis. The high price tag of the pharmaceutical proposal and overload of work going to the microplastic analytical partner (C. Rochman at University of Toronto) came into consideration and the group decided to allot the remaining funds to SPL and Sediment proposals.

In the end, all except for the lowest priority proposal from both the SPLWG and SedWG were prioritized. This choice resulted in a slight overage (approximately \$13,000); however the meeting attendees reasoned that the POC reconnaissance monitoring

work could be scaled (e.g., sample less sites) and the data analysis proposal would likely not require the entire \$50K proposed, providing two options to cover the funding shortfall.

After priorities were finalized the group had a brief discussion of how efficient and manageable the process was this time around. The general feeling was an appreciation for both the initial TRC guidance and preemptive prioritization work, as well as putting more onus on TRC members to thoroughly research proposals and/or attend workgroup meetings. Jay Davis gave special recognition to Luisa Valiela for attending all the workgroup meetings (Gran Milan gift card included!).

Decisions:

- Chris Sommers motioned to approve the recommendations for special study funding, Ross Duggan seconded the motion. The motion for approval was carried by all present members.

Action Items:

- Send approved funding table to TRC members (Melissa Foley, 6/30/19)

6. Update List of RMP Projects Eligible for Supplemental Environmental Project Funding and Recommendation Allocation of Existing SEP Funds

Prior to the workgroup meetings each of the WG leads went through the existing ideas on the RMP's Multi-Year Plan SEP list and no ideas were initially flagged for removal. The decision points for the TRC were discerning if un-funded 2020 special studies should go on the SEP list, if the new SedWG SEP ideas can be added, and reviewing the existing list for any unnecessary ideas.

Jay noted that a few of the workgroups (SPLWG and PCBWG) did not fully discuss SEP ideas given time constraints. The STLS group have regular calls and are capable of reviewing the list, and Jay plans to hold a conference call with the PCBWG members to go over the future planning, SEP ideas, and revised PMU proposal. With this situation in mind, it was suggested that the TRC revisit the SEP table at the next meeting.

The group then covered more general topics relating to SEPs. Bridgette posed the idea that the TRC review the SEP list two times a year (e.g., at June funding meeting and October MYP workshop). Luisa discussed the wide range in SEP budgets, which

Melissa explained is a strategic approach. Chris brought up the point that some of the SEP ideas seem like they previously would have been funded solely through the USGS. With decreasing federal funding, Melissa explained that she had discussed with Tom Mumley and Richard Looker about whether or not the RMP should pull together a subcommittee of TRC and SC members to discuss high-level RMP decisions in advance of the MYP workshop in October. For example, whether or not it falls on the RMP to pick up the slack from federal funding. Another topic for the subcommittee would be how to move forward with the Status and Trends programs as emerging contaminants get added, while budgets do not increase. Luisa Valiela, Ross Duggan, and Richard Looker volunteered to participate in the subcommittee.

7. Discussion: Selenium Lab Intercomparison Study Results

This item was discussed earlier in the day than was planned because the meeting was running ahead of schedule.

Nina Buzby presented the results of the selenium intercomparison study. The purpose of the study was to determine which analytical lab would allow for the best continuity of data as the RMP picks up on the previously USGS-run monitoring of clams in the North Bay. Nina noted the workgroup-approved criteria that were used to assess the labs - cost, CEDEN reporting ability, quality assurance performance, and recovery percentages relative to historical and study-mean values.

The results were rather clear, showing Brooks Analytical Labs (BAL) as the front runner. The lab not only assisted with intercomparison study logistics (subsampling sturgeon samples), but also had the fewest deviations > 30% from/outside the historical concentrations and intercomparison means. The TRC were in agreement with the decision to use BAL for the upcoming North Bay monitoring work. They also agreed that CCSF would be a good backup lab is needed.

8. Decision: Confirm Status and Trends Monitoring Design

This item was discussed earlier in the day than was planned because the meeting was running ahead of schedule.

Melissa Foley presented three items to the committee members concerning status and trends work. The first was a decision to begin monitoring for OPEs and bisphenols (recently made moderate concern contaminants) in water starting in 2021. Prior to making a decision the TRC members asked to see a budget with the analytical and data

management costs. The TRC suggested determining the number of samples (i.e., out of the 22 stations) based on what can fit into the existing budget.

The second item for discussion was an update on Sport Fish sampling which began at the end of May. The total budget of the efforts will depend on the number of fish caught, although Jay added that particular elements have been prioritized and there are aspects that can be cut to adhere to the available funding.

For the third and final topic of the item, Melissa asked the TRC for confirmation that there would be no nutrient monitoring on this summer's water cruise. The committee members were in agreement, because nutrient sampling was not done in 2017 and they are already being monitored monthly throughout the Bay.

9. Discussion: Data Visualization Challenge Update

Cristina Grosso provided an update on the 2019 RMP Data Challenge planning efforts, which was renamed to the Data Exploration Challenge, in order to reflect the goal of gathering more interpretive graphics. Cristina began by reporting back on the outreach efforts taken by the data challenge team, as well as clarifying markers for success for the year. She also summarized the timeline, noting that Heather Peterson suggested changing the submission due date from February to May. The meeting attendees received a handout outlining the challenge scenario that asks the participants to take on the perspective of a public health official. The text included two groups of prompts, including one with more complex questions meant for university students.

The meeting participants provided some suggestions on question wording, particularly to make sure the prompts don't conflict with existing Bay-wide advisories and that students gather the majority of data/information from the CD3 database. Mary Lou Esparanza then brought up an important question of what would be the intended/expected first step when approaching the prompts. Cristina and the rest of the group agreed that keeping this in mind when finalizing the questions would be helpful. Cristina then went on to provide an overview of the submission guidelines and scoring criteria. The only change to criteria noted was looking at the "scope of data used" rather than having a "compelling or novel interpretation."

At the end of Cristina's presentation the TRC suggested the submission due date should remain as is (late January, early February) and to announce the challenge at the upcoming waterboard symposium in July. Cristina then outlined next steps, including an expanded distribution list and coordinating other communication efforts like webpage

postings, tweets, and articles in SFEI and RMP newsletters. Melissa also commented that the SC had a desire to see the scenario when finalized to help distribute.

Action Items:

- Complete challenge flyer and webpage (Nina Buzby, 7/1/19)
- Find out how the H2O Hackathon distributed prizes (Cristina Grosso, 9/26/19)
- Send finalized scenario to TRC and SC for distribution (Cristina Grosso, 7/1/19)

10. Discussion: RMP Communications Products and Agenda for Annual Meeting

Jay Davis began by noting that Pulse article drafts are due by the end of the month, after a slight extension to account for workgroup efforts. The article review will be the same as previous years, starting with an initial Word document review to allow for substantial commenting. The second round of reviews will happen in August in the form of a fully laid-out, design document.

The four topics of the Pulse will correlate with the proposed annual meeting sessions - which will each include talks from a regulator, industry member, and scientist. Jay explained the idea behind this approach is to bring in an audience that spans these different fields as well as put new faces in front of the crowd. Several TRC members offered suggestions on possible speakers who haven't previously presented at the annual meeting.

One exception to the three speaker pattern is the Industrial Wastewater session - with only two talks related to the topic. This allows space for a presentation from Melissa Foley on RMP highlights. Bridgette DeSheilds also brought up the topic of retirements that should be acknowledged at the meeting including Nirmela Armsen, Beth Christian, and Brian Ross.

Action Items:

- Send draft Annual Meeting agenda to TRC members (Jay Davis, 6/30/19)

11. Information: Status of Deliverables and Action Items

Melissa provided an overview of the current status of RMP deliverables, noting a number of extended deadlines related to reporting. The main reasons for late reports have been longer review time and late/delayed data. When this was brought up there was some discussion about lab performance, to which Melissa noted that prior to

sending sport fish and water samples to analytical partners the RMP plans to hold a webinar to go over reporting procedures and needs.

Action Items:

- Share lab performance graphic with TRC (Melissa Foley, 9/26/19)

12. Discussion: Plan Agenda Items for Future Meetings

Based on discussions from previous items, suggested item for upcoming meetings include the following:

- Nutrients program update, specifically how it's efforts align with the RMP
- Review SEP table after full WG review and SC input
- Data Challenge update

It was noted that the October Multi-Year Planning workshop is planned for the day after the State of the Estuary meeting. Luisa commented that we should plan to take extra time at the beginning of the workshop to walk people through topics, as attendees won't have much time for preparation. The proposed subcommittee topics also came up again - with TRC member interest in discussing S&T, as well as nutrient program funding in a multi-year context.

Bridgette DeSheilds then brought up a slightly tangential topic that is pertinent to meeting attendees. The USACE is now requiring permits for sediment sampling in the Bay, which is proving to be quite time consuming, expensive, and problematic. The permits are required for any number of samples from "navigable waters" that fall under the Section 10 Rivers and Harbors Act. Bridgette mentioned that the head of the Waterboard is hoping to communicate with the new USACE colonel, and Luisa offered to contact her associates at the Corps.