



SAN FRANCISCO ESTUARY INSTITUTE

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RMP Steering Committee Meeting Summary

April 19, 2016

San Francisco Estuary Institute

Attendees

SC Member	Affiliation	Representing	Present
Jim Ervin	City of San Jose	POTW-Large	Yes
Dan Tafolla	Vallejo Sanitation and Flood Control District	POTW-Small	Yes
Karin North**	City of Palo Alto	POTW-Medium	Yes
Adam Olivieri	BASMAA / EOA, Inc.	Stormwater	Yes
Peter Carroll	Tesoro Golden Eagle Refinery	Refineries	Yes
John Coleman	Bay Planning Coalition	Dredgers	Yes
Rob Lawrence	US Army Corps of Engineers	USACE	Yes
VACANT		Industry	
David Frandsen	NRG Energy	Cooling Water	Yes
Tom Mumley*	SFB Regional Water Quality Control Board	Water Board	Yes

* Chair, ** Vice Chair

Guests and Staff

- Phil Trowbridge (SFEI)
- Jay Davis (SFEI)
- Jennifer Sun (SFEI)
- Lawrence Leung (SFEI)
- Lester McKee (SFEI)
- Jing Wu (SFEI)
- Jennifer Hunt (SFEI)
- Alicia Gilbreath (SFEI)
- David Schoellhamer (USGS) - by phone
- Brenda Goeden (BCDC) - by phone

1. Introductions and Review Agenda

The group acknowledged the many contributions of Rob Lawrence, who will be retiring from USACE.

Action Item

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- Follow up with Rob Lawrence to find a new USACE representative or, if necessary, send a formal request to the USACE senior management (Phil Trowbridge)

2. Decision: Approve Consent Calendar Items

January 19, 2016 Steering Committee Meeting Summary

There were no questions regarding the January 19, 2016 Steering Committee Meeting Summary.

Items for Approval

- Karin motioned to approve the January 19, 2016 Steering Committee Meeting Summary. Adam Olivieri seconded the motion. The motion for approval was carried by all members.

Action Items

- Post the January 19, 2016 Steering Committee Meeting Summary to the Bay RMP and SFEP websites. (Jennifer Sun)

3. Information: Technical Review Committee Meeting Summary

Tom Mumley cautioned that RMP archives should be disposed of cautiously rather than as part of a rapid effort to reduce costs. Tom also confirmed that the 6 CTR analytes with MDLs above California water quality criteria are not a priority and additional high-resolution analyses are not needed.

Phil Trowbridge reported that sediment flux monitoring at the Dumbarton Bridge and Golden Gate Bridge began, but antecedent rain conditions have been such that Guadalupe River monitoring has not yet been triggered.

4. Information & Decision: RMP Financial Update for 2016 Quarter 1

Lawrence Leung provided an update on 2016 Quarter 1 financials. Several additional items were also discussed:

El Nino monitoring

Luisa Valiela helped the RMP acquire \$255k in unused funds from past San Francisco Bay Improvement grant funds to SFEP, in order to help fund El Nino monitoring studies. As a result, the RMP costs for this project were reduced to \$43k, and \$147k was returned to the Undesignated Funds. If Guadalupe River monitoring does not occur and additional SFEP funds remain after the wet season, it may be possible for

the funds to be used to synthesize April Robinson's work on mercury in Lower South Bay or to develop a long-term plan for Guadalupe River loads monitoring.

Dredgers Fees

The Bay Planning Coalition has held three meetings to discuss the dredger fee change, and John Coleman will bring the final option to the BPC board on May 18th. However, there will still be a deficit in 2017, because small project dredgers have already established their budgets based on the old fee system, although Rob Lawrence noted that a high volume of dredging has likely occurred over the past fiscal year due to the drought and El Nino conditions. In the future, the dredgers fee formula should be updated two years before the old formula expires so that dredgers can budget accordingly. The Steering Committee has also previously decided not to recoup the cumulative \$228k deficit in dredgers fees. John Coleman also indicated that the the USACE has agreed that fees should increase from \$250k, at least at levels equivalent to the consumer price index. Congress is still working on the budget for 2018, but there is a tentative expectation that the allocation for USACE fees to the RMP will increase.

Matching Funds

SFEI is requesting \$93k from the RMPs 2012-2015 stormwater POC monitoring budgets as a retroactive match for a Flood Control 2.0 grant. These funds have already been spent, and using them as a match will not affect any RMP activities. Because this is a retroactive match and there are unlikely to be competing requests for these matching funds, the group approved this match (see vote record at the end of this section for official approval).

SFEI's Resilient Landscapes group is preparing a Water Quality Improvement Fund grant proposal related to their Resilient Silicon Valley project, and has requested a \$50k match from the RMP to contribute to a sediment science synthesis task. The deadline for the proposal is May 27, 2016, and funds provided by the RMP would be leveraged 5:1. Funds would be taken from the Undesignated Funds pool.

Various committee members indicated that they preferred all funding requests to be reviewed by the workgroups, if applicable, and Technical Review Committee. Because of the imminent deadline, there will not be time for the TRC to fully review this proposal. Although this is a recurring grant opportunity, it may not be available annually. The group agreed to allow Tom Mumley to work with Phil to develop the proposal and determine how the RMP should fund such a project (ie. Undesignated Funds, match with already allocated RMP funds, additional funds from 2017/2018 budget, etc.), but requested that Phil circulate a 1 page summary of the proposed project to the TRC and SC. The group also agreed to develop formal procedures for using RMP funds as match funds at a future meeting.

Fiscal Year transition - the group agreed that this effort is unnecessary to continue at this time

Alternative Monitoring Requirement (AMR) & Supplemental Environmental Project (SEP) Funds

Karin North requested that Lawrence invoice all wastewater participants for Alternative Monitoring Requirement funds before the end of the fiscal year, with the option to opt out. The potential total revenue from this source is \$250k if all wastewater agencies opt in. Karin estimated that few if any agencies would opt out of the program altogether, with the exception of some of the smaller associate agencies.

Tom Mumley clarified that the designated use of AMR funds for CECs may be flexible, although CEC studies would remain the top priority.

Tom also estimated that about \$100k in mandatory minimum penalty (MMP) funds could become available to the RMP each year. Permittees have the option of allowing half of their penalties to fund RMP studies. However, it is essential to document the use of these and other SEP funds to demonstrate that the funds are providing “added value” beyond what is required through existing permits.

Items for Approval

- Adam moved to approve the use of \$93,000 of RMP past expenses from 2012-2015 as non-federal match for the Flood Control 2.0 grant proposal. Karin seconded the motion. The motion for approval was carried by all members.

Action Items

- Develop procedures for using RMP funds as grant matching funds and report back to the SC (Phil Trowbridge)
- Discuss with Tom Mumley the possibility of using RMP funds as match for a Resilient Landscapes Water Quality Improvement Fund proposal. Bring the proposal back to the SC for approval if it is justified. (Phil Trowbridge)
- Distribute more information on the Resilient Landscape’s Water Quality Improvement Fund proposal to the Steering Committee, if RMP funds will be used as match. (Phil Trowbridge)
- Send invoices for the AMR supplemental RMP contribution to all wastewater participants by mid May to give agencies the option of using left-over money in their budgets for this fiscal year. (Lawrence Leung)

5. Discussion: Guidance to Workgroups on 2017 Special Studies Budgets

Emerging Contaminants

The Emerging Contaminants Workgroup meeting was held on April 15. The Emerging Contaminants Workgroup recommended developing passive sampling capabilities for emerging contaminants and legacy contaminants, and discussed holding a technical workshop (remote webinar) on passive sampling in the fall. Tom added that passive sampling could be incorporated into the RMP program beyond CECs, and that it should be used alongside modeling efforts that would optimize monitoring designs and assist with data interpretation. The inclusion of passive sampling is consistent with the Statewide CECs monitoring recommendations. Tom suggested that the RMP consider how modeling could be incorporated more comprehensively into the program, including assisting with passive sampling, in order to define funding needs and identify funding sources. Adam Olivieri emphasized the need to conduct spreadsheet analyses of chemical source and production data to predict what chemicals should be monitored. Karin also highlighted the Workgroup’s intention to develop more refined methods for moving chemicals up, down, on or off the tiered ranking list based in part on this type of source analysis.

Selenium

The Selenium Workgroup has so far focused on sturgeon monitoring, but would like to consider broadening the monitoring efforts. Terry Young has requested the development of “early warning”

monitoring indicators that would highlight changes in selenium inputs from the Central Valley. Current proposals remain focused on sturgeon monitoring (muscle plug monitoring, multiple tissue monitoring at the Sturgeon Derby, telemetry data analysis) but the group will discuss additional monitoring options at the meeting. The group will also discuss beginning the South Bay Synthesis one year early. The South Bay is on the 303(d) list and experiences different sources and influences from the North Bay, for which a TMDL has recently been approved by the Water Board.

PCBs/Dioxins

The PCB Workgroup will discuss the draft Conceptual Model report on the Emeryville Crescent PMU. The 2017 proposal will focus on developing a conceptual model for San Leandro Bay. Funding through a Supplemental Environmental Project may be available for some of the PMU work.

The dioxin synthesis report will be proposed again in 2017, and is a high priority for funding.

Exposure & Effects

The Exposure & Effects Workgroup will primarily discuss results from the second year of the bioanalytical tools study. The EEWG has previously worked with the ECWG, whose members will be participating in the discussion of this project as well.

Microplastic Strategy Meeting - will be held on June 29th at SFEI.

Additional Discussion Highlights

Tom Mumley indicated that workgroups must rank their proposed studies and prepare a list of studies that can be readily implemented if Supplemental Environmental Project funds become available. However, the availability of SEP funds should not affect the distribution of special studies funds between focus areas.

Karin and Tom highlighted that additional pre-workgroup planning would help make the workgroup decisions more fruitful. Particularly for growing focus areas like Emerging Contaminants, holding two workgroup meetings each year would be useful - one for developing concepts and one for approving proposals, although this strategy can be expensive. RMP staff should engage with Science Advisors before the workgroup meetings to get feedback and new ideas.

The available Special Studies budget will not be confirmed until the fall. The dredger fee formula is still being negotiated and the fee shortfall will not be known until September. However, any deficit is likely to be offset by new revenue from the Alternative Monitoring Requirement (intended to be used for CEC studies) and SEP mandatory minimum penalties. Tom noted that for larger SEP settlements, ultimately it is the Water Board that determines whether the nexus between a RMP project and the settlement qualifies the project for SEP funding. The group agreed that the workgroups should assume full funding levels when preparing proposals, but the TRC and SC can rank proposals and add/subtract studies in November once the true budget is known.

The next discussion of the overall RMP budget and fees will be at the July SC meeting, followed by an approval in September following stakeholder discussion. John Coleman noted that a maximum cap should be placed on the reserve funds - either a dollar amount or a percentage of the total budget. Phil also noted that it could become an issue if SEP funds start to replace participant fees in funding the program.

Action Items

- Revise guidance to workgroups to indicate that ranking of proposals is mandatory and that all workgroups should have extra projects scoped out to be ready for SEP settlements. (Phil Trowbridge)
- Add agenda item to the July 2016 SC meeting to consider a maximum undesignated reserve fund cap and plans for fee increases for the next three years (Phil Trowbridge)

6. Discussion: Potential New Focus Areas Recommended by TRC

Phil Trowbridge presented five ideas for potential new focus areas for the RMP: Tidal Wetland Regional Monitoring; Beneficial Reuse of Sediment; Trash; Sediment Fate, Transport & Effects; and Bacteria at Bay Beaches and Recreational Waters. The group strongly agreed that developing a sediment strategy is a high priority for the RMP, and it was suggested that the beneficial reuse of sediment and sediment fate, transport & effects areas be combined. The first step to developing this focus area could be the RMP's involvement in the SFEI Water Quality Improvement Fund grant proposal, which will include a sediment synthesis. Tom and Phil will work together to develop the RMP's role in this project and report back to the TRC and SC.

Tidal wetland regional monitoring was also viewed favorably, but could be a substantial effort requiring additional funding and partners. This topic will be discussed further at the Multi-Year Planning Meeting. The RMP's involvement in trash issues will be reevaluated at a later date after the BASMAA effort on trash in creeks is completed. Developing molecular methods to better monitor bacteria in Bay beaches was determined to be out of the RMP's scope and will not be further pursued.

No specific studies will be proposed for the 2017 budget cycle. Additional discussion related to key focus areas is summarized below.

Sediment

The group strongly agreed that the RMP should develop a new focus area on sediment fate, transport & effects. Phil Trowbridge suggested that this would initially involve developing workshops to synthesize relevant information and develop study proposals. Brenda Goeden indicated that BCDC has already begun developing a library of relevant documents and can contribute to such a synthesis. BCDC has already held a workshop on sediment research goals, which focused on sediment fate & transport relating to beneficial reuse of dredged sediments, sediment budgets, and sediment risk (shoreline erosion, sea level rise, etc.).

Tom Mumley suggested that the RMP can develop a larger strategy and identify external partners to address particular questions with expertise and funding from other agencies (ie. related to sea level rise,

wetland restoration, etc.). Tom also emphasized the need to take advantage of Dave Schoellhamer's field work capabilities, and Dave indicated that he had the capacity to expand his work for the RMP if provided additional resources.

Tidal Wetlands Regional Monitoring

Tom suggested that the RMP explore facilitating a regional wetlands monitoring program, which will have an increasing nexus with current RMP work as wetlands become receiving waters as part of horizontal levees. Jim Ervin suggested that the RMP or SFEI bid on RFPs relating to monitoring of restored wetlands that are put out by the South Bay Salt Ponds Restoration Project. The group agreed to discuss this idea in greater depth as part of the Multi-Year Planning Meeting.

Action Items

- Modify the list of “new focus areas” based on SC feedback and continue to refine the concepts for the November SC meeting. (Phil Trowbridge)

7. Science Update: Small Tributary Loading Strategy Studies

Lester McKee presented recent results from the water year 2015 stormwater monitoring program. In 2015, monitoring included reconnaissance-style monitoring in the upper watershed and an intercomparison between two passive sampling methods and composites of grab samples taken throughout the storm. Through this reconnaissance monitoring, three additional high PCB concentration sites were identified, as well as two of the highest mercury concentration sites outside of the Guadalupe River. Other key findings included: percent imperviousness was generally correlated with particle ratios; high mercury watersheds were often but not always also high PCB watersheds; climatic adjustments were used to adjust loads, but cannot fully adjust for low bias due to a lack of information about large storms; and watersheds with old industrial land use show the greatest variability in PCB concentrations and loads.

Data from 19 new sites were collected and used to calibrate the Regional Watershed Spreadsheet Model. Some data considered to be outliers were excluded from the spreadsheet model, including data points representative of base flow only and anomalous events (ie. very small storms). The group is also considering running the model in two modes, with and without the inclusion of high outliers that are representative of anomalous conditions in the watershed or particularly high source areas. The best estimate of total PCB loads (16.8 kg/yr) and mercury loads (95 kg/yr) are well within the range of what was expected and similar to the estimate in the TMDLs. The newest version of the spreadsheet model will be available in early May. With the improvements being tried presently on the model parameterization and calibration styles, it is anticipated that the loads of PCBs at the regional scale can be estimated with increased confidence.

Beginning in 2015 with the Municipal Regional Permit 2.0, efforts have shifted away from fixed loading station monitoring towards reconnaissance-style monitoring. From 2017-2020, monitoring may shift again, this time towards trend monitoring in response to the MRP 2.0 and the need to begin to assess the reduced loads caused by implementation to BMPs for PCBs and Hg.

8. Information: Annual Meeting Agenda and RMP Update Report

Annual Meeting

Speakers, sessions, and presentation topics agreed upon by the group are outlined below:

Introduction

- Tom Mumley

Nutrients

- Dave Senn: Nutrients overview summary, including what we have learned, where we are, where we're going, and guiding questions. Focus should be on phytoplankton and dissolved oxygen, with some discussion of HABs
- Phil Bresnahan: Moored Sensors
- Rusty Holleman: Modeling

Dredging, Stormwater & Sediment dynamics

- Dave Schoellhamer
- Lester McKee
- Brian Ross - management perspectives that relate to science needs on dredging
- Don Yee

CECs

- Rebecca Sutton: CECs - if new CEC strategy is ready, potentially including microplastics strategy if RMP wants to pursue. Avoid presenting another general overview of the CEC program, which has already been done in previous years
- DPR / Jennifer Teerlink: fipronil/imidacloprid
- Anne Cooper-Dougherty: Green Chemistry

Sportfish & Sturgeon studies

- Jennifer Sun

Additional suggestions included:

- Schedule the CECs and general RMP sessions in the morning and the Nutrients sessions in the afternoon
- Allow length of sessions and presentations to vary
- Increase the time allocated to Tom Mumley and Dave Senn
- Focus on an overarching theme that ties the meeting together, ie. "How the RMP is addressing science and management questions"
- Work with presenters and moderators to frame each talk in the same way, explaining the regulatory background driving the work being presented
- Tom Mumley did not feel that the nutrients presentations at this meeting would satisfy the NMS's interest in holding an annual workshop on nutrients issues. The purpose of that meeting was to create a forum that would allow for coordination between the RMP and others' work. The RMP annual meeting should focus on topics relevant to the RMP.
- Several committee members felt that HABs were not the primary concern of the Nutrients group, as the nexus with nutrients and potential management actions is unclear. The nutrients topics of interest include DO, chlorophyll, and phytoplankton (ie. ammonia and N:P ratio paradoxes)

RMP Updates

The RMP Update will not include a discuss of New Focus Areas, which will not be fully discussed by the time of report publication. The report also will not include discussion of financial issues, although it will include a summary of revenue and expenses. The report will be distributed for review following the workgroup meetings.

9. Information: Topics for Estuary News articles in 2016

The next Estuary News article will focus on bird egg sampling. The 2006-2012 bird egg report has finally been completed, and 2016 bird egg sampling is in progress. Jay proposed an annual cycle for Estuary News topics: articles on stormwater topics in March, miscellaneous RMP topics in June, Nutrients in September, and CECs in December. The December 2016 Estuary News article will focus on either the new microplastics strategy or an upcoming PFCs manuscript.

The Science Update at the July Steering Committee meeting will focus on sport fish data.

Action Items

- Give a science update on the draft sport fish data at the July SC meeting (Jennifer Sun)

10. Discussion: Staff Report on “Internal” Program Review

Phil Trowbridge reported back on the RMP’s internal program review requested by the Steering Committee.

Review Workgroups and Science Advisors

The Sources, Pathways, and Loadings Workgroup and the Emerging Contaminants Workgroups have changed some of their science advisors. The PCB and Selenium Workgroups may need to incorporate more advisors; in particular, a fate and transport expert is needed for the PCB Workgroup. While workgroups are advised by a number of experts, science advisors must be explicitly external (including geographically) to the program, with no conflict of interest, and provide key peer review during the planning stages of proposals and studies. Both the PCB and Selenium Strategy Teams were transitioned into Workgroups once they acquired paid science advisors. Science Advisors are ultimately determined by the science leads, in consultation with key stakeholders.

The Mercury and Dioxin Workgroups are dormant, and the EEWG may transition into dormancy, depending on the workgroup’s interest in developing new studies. The group is currently reviewing a bioanalytical tools study in coordination with the ECWG. Potential new workgroups include a Microplastics Workgroup and Sediment Fate, Transport & Effects Workgroup.

Tom Mumley warned that the RMP should be judicious about bringing in new science advisors, and careful that workgroups focus on regulatory rather than scientific research questions. Tom also requested additional explanation of the expectation for dormant groups and new groups.

Review Internal and External Partners

A summary of the group's feedback on the RMP's recommendations for external coordination is outlined below:

Maintain Strong Partnerships With:

- RMP Participants
- Nutrient Management Strategy
- SFEP

Invest in Partnerships with:

Coordination with the Delta - modeling, nutrients, and selenium are key areas of overlap. Use of RMP funds to coordinate with the Delta RMP was approved last year using Contra Costa County fees. Tom suggested regular communication to the workgroups, TRC, and SC about coordination efforts with Delta agencies.

- Delta RMP
- IEP) - attend IEP meetings for the next year to increase awareness of their monitoring efforts and evaluate the need for investing in this partnership.

Others

- South Bay Salt Ponds Restoration
- BCDC - make sure this agency is included on the new Sediment Workgroup. Bay Area universities - small effort, beginning with the advertising of archive samples

Biota - other agencies that monitor Bay biota include UC Davis, IEP, and DWR. Two issues of concern highlighted were pelagic organism decline and *Potamocorbula* clam distribution in the Bay.

Review the Need for Performance Measures

RMP staff recommended adding an annual satisfaction survey of RMP fee payers as the only additional measure of performance. Committee members felt that feedback at their stakeholder meetings was sufficient. The group agreed that mechanisms for substantial feedback already exist and are working well, and that an additional survey is not needed.

Define RMP role in New Focus Areas

This topic was discussed in Agenda Item 6.

Action Item

- Update and finalize the Internal Review report. (Phil Trowbridge)
- In the internal review document, include IEP as an external partner with whom to develop a stronger working relationship. Attend IEP meetings for the next year. (Phil Trowbridge)

11. Information: Status of RMP Deliverables and Action Items

Phil noted that the Bay Margins report will be delayed because of the delay in the sediment PCB intercomparison study and lab selection. Comments from the group included that (1) flags showing which deadlines have been extended are helpful, and (2) the font size is small.

12. Decision: Set future meeting dates and topics

The next Steering Committee meetings will be held on July 19 and November 1, 2016. The next meeting after that will be on January 17, 2016.

Action Items

- Schedule the Multi-Year Planning Meeting and fall Steering Committee meeting for January 17, 2016 (Jennifer Sun)
- Post 1/19/16 meeting summary to website (Jennifer Sun)

The meeting was adjourned at 3:15 pm.