



SAN FRANCISCO ESTUARY INSTITUTE

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RMP Steering Committee Meeting

July 21, 2015

San Francisco Estuary Institute

Meeting Summary

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	No
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	No
Rob Lawrence	US Army Corps of Engineers	USACE	No
VACANT		Industry	
Ray Kellner	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)
- Rebecca Sutton (SFEI)
- Dave Senn (SFEI)
- Lawrence Leung (SFEI)
- Jennifer Sun (SFEI)
- Austin Perez (BPC) - by phone

1. Introductions and Review Agenda

Tom Mumley highlighted the key goal of the meeting to approve the Special Studies recommended by the TRC. There were no questions regarding the agenda.

2. Decision: Approve Meeting Summary from April 21, 2015 Steering Committee Meeting

No questions were raised regarding the April 21, 2015 Steering Committee meeting agenda.

Items for Approval:

Adam Olivieri moved that the April 21, 2015 Steering Committee minutes be approved. Karin North seconded the motion. The motion was carried unanimously by all present members.

Action Items:

- Post April 21, 2015 SC meeting summary to the website (Jennifer Sun).

3. Information: TRC Meeting Summary

Phil Trowbridge gave a brief summary of the TRC meeting held on June 30, 2015. The workgroups were instructed to prepare proposals at a lower funding level than outlined in the Multi-Year Plan due to RMP budget constraints, and the TRC recommended a slate of Special Studies proposals adding up to \$858,000. The original planned Special Studies budget was \$1.3 million

The TRC was informed of the changes in the Bay Margins study design, based on recommendations made by the Steering Committee in April. The group discussed plans for the 2015 Water Cruise, and approved the elimination of nutrients monitoring if recommended by the Nutrients Management Strategy group. Other items discussed included the addition of CTR analyte monitoring during the 2015 Water Cruise and the State of the Estuary Conference, which would be discussed later in the meeting in greater detail.

Tom Mumley requested that the meeting agendas continue to be posted on the SFEI website, with separate files for each agenda item.

Action Items:

- Post prior and future TRC and SC meeting agenda packages on the main SFEI website calendar and program pages, including separate files for each agenda item (Jennifer Sun).

4. Information: RMP Financial Update for 2015 Quarter 2

2015 RMP Budget Summary

Lawrence Leung and Phil Trowbridge gave a summary of the status of the RMP budget and revenue collection for 2015. Some tasks are closed, and some are either already over budget or on track to be over budget. There exists some flexibility to offset cost overruns in one task with savings in another. The line-item budget breakdown tracks budget actuals, which will better inform the development of future budgets. Overall, the budget is on track, with 39% of the total budget spent.

Phil informed the committee that the 2015 Bay Margins Study is forecast to be over budget. Because this was a new type of study using a new contractor, planning and coordination of this study was very time-intensive. The group recommended that the report be shortened to the essential information necessary to inform management decisions about planning future iterations of this study.

Phil noted that funds allocated to Task 5D, “Fact Sheets and Outreach Products” will be used to prepare the 2014 microplastics report. Funds allocated to Task 6J, “Analysis of S&T Impacts, Changes, and Data” will be used to prepare the 2014 fipronil manuscript.

Request to carry-over 2012-2014 Nutrients modeling funds

Phil presented a proposal to consolidate funds reserved in the 2012, 2013 and 2014 budgets for nutrients modeling into a single task within the 2014 budget. These funds will be used to launch a concerted nutrients modeling effort, which will begin with the arrival of a new hire, Rusty Holleman, in August 2015. Rusty graduated from Mark Stacey’s lab at UC Berkeley and is currently a postdoctoral associate at Woods Hole Oceanographic Institution.

Rusty will be working primarily with Nutrients Management Strategy program, but his models may be applicable to other contaminant groups. The committee requested that Rusty prepare a short presentation for a future Steering Committee meeting describing his work and its potential to inform other RMP areas of focus, such as emerging contaminants and the Bay margins.

Items for Approval:

- Adam Olivieri moved to consolidate the 2012, 2013 and 2014 RMP modeling funds as recommended by staff. Karin North seconded the motion. The motion was carried unanimously by all present members.

Proposed change from Calendar Year to Fiscal Year

Phil presented the pros and cons of switching the RMP from a calendar year cycle to a fiscal year cycle. SFEI currently operates on a fiscal year, and has requested for a second time that the RMP switch to a fiscal year to support better planning coordination throughout the Institute. Fiscal year cycles would also better align with the timing of Special Studies, which often begin field work in the fall. SC members indicated that the timing of invoices was not important.

The biggest challenge with this switch is the adjustment of the RMP planning schedule during the stub year. After a switch, special studies planning could be approved in the spring prior to the beginning of the fiscal year (ie. April SC meeting), and budgets could be approved in the summer at the end of the fiscal year (ie. July SC meeting).

The group supported the switch from a calendar year to a fiscal year if Phil could develop a planning cycle that would not disrupt RMP planning either during or after the switch.

POTW fee calculations

Phil presented Novato's request for clarification regarding the inclusion or exclusion of recycled water effluent in POTW calculations of load contributions to the Bay, from which RMP fees are calculated.

Jim Ervin advocated removing recycled water effluent from POTW calculations of loads to the Bay, which would incentivize POTWs to increased recycled water use. Tom agreed, but indicated that this issue should be resolved among POTWs, which is the process outlined by the RMP Charter. Adam Olivieri noted that the stormwater participants break down fees by population, which could be an alternative option for POTWs.

Karin agreed to bring this issue to BACWA to resolve. She suggested having BACWA pay the entire POTW fee in the future, and addressing the breakdown of costs among POTW participants internally rather than through the current data upload system.

The group agreed to allow Novato to remove recycled water effluent from its calculation of load contributions to the Bay this year, and adjust future fee collections based on Karin's discussions at BACWA.

Action Items:

- Update the 2012, 2013, and 2014 Nutrients modeling budgets to reflect the consolidation of remaining funds into the 2014 budget year (Lawrence Leung)
- Schedule a presentation by Rusty Holleman at a future SC meeting, to provide an update on the nutrient modeling workplan and the potential use of these models to provide insight into other RMP program areas (e.g, emerging contaminants, PCBs, margins) (Phil Trowbridge)
- Develop a proposal for transitioning the RMP to a fiscal year without disrupting the RMP's planning and governance process to present at the November SC meeting (Phil Trowbridge)
- Provide Karin North with a summary table of loads reported and invoices paid by each POTW over the past few years (Lawrence Leung)
- Respond to Novato's question regarding load calculations for RMP fees, allow them to remove recycled water from their load calculation (Lawrence Leung)
- Lead a conversation with BACWA to determine whether BACWA can pay RMP fees for all POTWs (Karin North)

5. Discussion: Science Update - Selenium

Tom Mumley provided some background on the current status of the Water Board's draft TMDL, which has been distributed for peer review and will soon be released for public notice. Load reductions are unlikely to be required. Tom indicated that only remaining scientific question of interest to the Water Board regarding selenium is the development of a non-lethal method for tracking selenium concentrations in white sturgeon. Additional studies are needed to develop this method and obtain clearer fish tissue concentration results, as currently measured concentrations occasionally exceed the proposed draft TMDL.

Jay Davis provided a brief history of the development of the Selenium Workgroup, which was created in 2014. Jay presented monitoring results showing selenium in sturgeon fillets, which occasionally exceed

both the EPA freshwater criteria for sturgeon muscle tissue (15 ppm) and the proposed draft TMDL target (11.8 ppm). The average concentration measured in fish sampled in North Bay is higher than in South Bay. Tom indicated that this difference is most likely tied to diet; higher selenium concentrations are seen in *Potamocorbula amurensis*, which is more prevalent in North Bay.

Bay-wide selenium concentrations measured in water have increased slightly over the past decade, driven by higher concentrations in Central and South Bay, but recently measured concentrations are well below the proposed draft TMDL limit for ambient water (0.5 ug/L). Jay and Phil Trowbridge noted that the RMP has used the same analytical lab through its history of selenium measurement in water (Brooks Rand Analytical Laboratory), which uses analytical method 1640 with a detection limit of 0.07 ug/L. Barbara Baginska has indicated that interlaboratory comparisons to reevaluate this method and lab are not necessary at this time.

Selenium concentrations measured in cormorant eggs were below the 12 ppm objective established in a TMDL approved for the Great Salt Lake. Selenium concentrations measured by Robin Stewart of the USGS in *P. amurensis* showed a drop in concentrations in the early 2000s, but Tom indicated that this drop was not related to decreases in oil refinery selenium loads.

Jennifer Sun presented results from the 2014 sturgeon muscle plug special study, which showed that muscle plug sampling was a viable, non-lethal method for measuring selenium in sturgeon muscle tissue. Concentrations measured in muscle plugs have been slightly higher than those measured in muscle fillets. Concentrations measured in plugs of several individual fish exceeded both the proposed target in the draft TMDL, but the average plug concentration was below the target.

Jennifer then presented preliminary data from the 2015 Sturgeon Derby study. Muscle plug concentrations were on average below the proposed TMDL target, but higher than concentrations measured in previous muscle plugs, which could potentially be related to fish sex, as only female sturgeon were sampled during the Derby, or to seasonal variation in dietary exposure.

Jay then presented the Selenium Workgroup's updated Multi-Year Plan. Selenium strategy coordination is planned at \$10,000 for each year, which supports the coordination of one workgroup meeting. The 2015 budget included funds for selenium information synthesis - used to gather telemetry information - as well as the Sturgeon Derby and Sturgeon Muscle Plug study. The total budget for 2015 was \$84,000. A repeat of the Sturgeon Derby study is proposed for 2016. Options for special studies in 2017 include a repeat of the Sturgeon Muscle Plug study or a study proposed by Robin Stewart and Steve Zeug to look at selenium concentrations in sturgeon eggs, the lifestage when sturgeon are most susceptible to selenium toxicity.

Tom again emphasized that his only interest in selenium work was the development of a sustainable, non-lethal sturgeon tissue monitoring method, and argued that fin ray analyses are not directly related to management decisions. Peter Carroll expressed support for the proposed studies and outcomes of the Selenium Workgroup. Water column and sturgeon monitoring should be continued for tracking TMDL implementation. He suggested that ongoing work, including monitoring other sensitive species such as birds, may be relevant for developing the South Bay TMDL.

6. Decision: Request for Undesignated Funds for 2015 Sturgeon Muscle Plug Study

Jennifer presented the request for \$12,000 from the Undesignated Funds pool to fully fund the 2015 Sturgeon Muscle Plug Study. The additional funds will support increased staff time for study coordination and field work, as well as sex steroid analysis in blood plasma.

Multiple group members highlighted that the proposed draft TMDL does not provide guidance on how to monitor for attainment of the TMDL. While information about the impacts of fish sex on selenium concentrations is unlikely to affect the TMDL itself, it may inform the protocol for monitoring attainment of the TMDL. Tom Mumley remarked that the Basin Plan is silent on the issue of averaging for selenium concentrations, and some clarification may be needed.

Items for Approval

- Peter Carroll moved to approve the request for \$12,000 in Undesignated Funds for the 2015 Sturgeon Muscle Plug Study. Karin North seconded the motion. The motion was carried unanimously by all present members.

Action Items

- Revise budget for the 2015 Sturgeon Muscle Plug Study and Undesignated Funds balance to reflect a \$12,000 increase. Update the deliverables for the study to reflect the expanded scope. (Jennifer Sun)

7. Decision: Approve Special Studies for 2016

Phil Trowbridge presented an overview of the process for special studies proposal development and prioritization by workgroups and the TRC. The majority of group members were supportive of the proposals recommended by the TRC. Comments regarding specific studies are recorded below:

- Clay toxicity effects study - Tom Mumley felt that the preliminary laboratory study was already conclusive and suggested the toxicity test should no longer be used. However, he recognized that some toxicity test is still needed to support sediment quality objectives and delist contaminated areas.
- Fipronil in POTW effluent - Tom felt that POTWs could be required to conduct this work without RMP funding if it is indeed a high priority. Jim Ervin felt that POTWs would be more willing to conduct the research collaboratively through the RMP than as a result of a mandate from the Water Board. Karin suggested that having RMP coordinate, write up, and submit this work to a formal journal would have a greater impact on state and federal decisions to address fipronil, relative to individual POTW monitoring efforts. Tom suggested that POTWs should play a larger role in EC monitoring in the future.
- PCB study - Tom expressed strong concern that funding was cut for PCB studies, which may directly impact several management decisions, and felt that funding should instead have been increased. Jay Davis indicated that the reduced funding would not delay conceptual model development, but would delay monitoring. Tom agreed to approve the proposed \$40,000 funding level for PCB studies but requested discussions with Jay and the PCB Workgroup to identify

potential impacts of this funding cut on the ability of the group to inform short- and long-term management decision-making.

- Selenium Strategy Coordination - Tom agreed that the selenium workgroup was still currently necessary, but suggested that it should be retired if current studies are able to help successfully establish a muscle plug monitoring protocol.
- EC Strategy Support - Tom noted that he placed a priority on updating the EC strategy, which should include strategies for source monitoring (POTW monitoring, runoff monitoring, market trend analysis, etc.)

Adam Olivieri noted that the presentation slide graphically representing the proposed Special Studies should categorize studies as addressing “Potential Problems of the Future” rather than “Problems of the Future.”

Items for Approval

- Adam Olivieri moved to approve funding for the 2016 special studies proposals recommended by the TRC. Peter Carroll seconded the motion. The motion was carried unanimously by all present members.

Action Items

- Set up budgets and deliverables for the approved 2016 Special Studies (Jennifer Sun)
- Organize discussions with the Water Board and PCB workgroup regarding the short- and long-term implications of special studies budget cuts for implementing the PCB strategy (Jay Davis)

8. Discussion: Pros, cons and viability of new sources of revenue for the RMP

Phil Trowbridge presented the current status of the RMP budget shortfall and reviewed the charge to the RMP New Revenue Subcommittee. In 2015, the RMP was \$400,000 short of its planned Special Studies budget, and \$750,000 short if inflation is taken into account.

Adam Olivieri felt that establishing an adequate budget to fulfill the RMP’s mission and identifying new sources of revenue were two separate issues, and that the subcommittee should just focus on finding new revenue. The group agreed. All subcommittee members present affirmed their commitment to participate in the subcommittee. The group agreed that a strong, sustainable source of new funding would require engaging a new group of stakeholders. The Bay margins was identified as a focus area that could expand and engage new stakeholders in the future (Port of Oakland, legacy marine yards, etc.). Peter Carroll suggested that John Coleman should be added to the subcommittee because he would have significant insight on margins- and shipping-related groups and potential funding sources. Tom Mumley warned that the Water Board’s regulatory authority can only be used for cases where there is a clear nexus between the activity and the Bay and the cost of the request is reasonable. The list of funding options to be considered by the subcommittee was revised as described below.

Options eliminated from consideration:

- Groundwater discharge permits - a nexus between discharge and the Bay is weak

- Increasing pre-treatment fees for industrial dischargers to POTWs - these entities have already invested in POTW upgrades
- Hazardous waste site monitoring

New options proposed:

- Technology industry - the group strongly agreed that opportunities to obtain funding from large technology companies should be explored. Adam Olivieri suggested hosting a Bay Area-wide event with organizations like Google, Facebook, Hewlett-Packard, and other philanthropic groups to explain the benefit of the RMP's work and solicit funding. Such an event should be held with the Water Board's sponsorship and could be coordinated with the SF Bay Restoration Authority (SCC). Tom agreed to discuss this opportunity with Warner Chabot, who is considering developing such an event.
- License plate - this was attempted previously by the Coastal Conservancy without success due to design and outreach challenges.
- Taxes on marine fuel products or boat registrations through counties - considered a potential option, but may be a slow-moving effort.
- Non-MS4 Phase II stormwater permittees (e.g., ports, marinas, airports, general industrial, general construction)

Action Items

- Update the charge to the New Revenue Subcommittee and schedule the first subcommittee meeting (Phil Trowbridge)
- Invite John Coleman to participate in the subcommittee (Phil Trowbridge)

9. Discussion: Coordination with the Delta RMP using revenue from East Contra Costa County

Phil presented the proposal by Central Valley Regional Water Board (RB5) to earmark fees paid by cities in the eastern portion of Contra Costa County (CCC) located within Region 5 (~\$27,000) for coordination with the Delta RMP. CCC prefers to continue paying fees representative of its entire area to the Bay RMP, but RB5 has requested that funds representative of the portion of CCC within Region 5 be used to benefit the Delta RMP.

Adam Olivieri strongly recommended not earmarking the proposed \$27,000 for Delta coordination, but rather establishing this value as a cap on the amount that could be used for coordination. Adam felt that earmarking sets a bad precedent, and that a cap would allow for greater flexibility.

Phil indicated that the Bay RMP's two monitoring stations in the Delta could not be considered part of coordination with the Delta, as they are not part of the Delta workplan and sampling design. Tom suggested that these monitoring stations could be removed from the Bay RMP - assuming the Delta RMP is collecting similar data at these locations - and these funds also used to offset this cost for Delta coordination.

The group agreed that CCC should continue paying the entirety of its fees to the RMP, and agreed with Adam's recommendation not to create a separate line item in the Bay RMP budget for Delta coordination. Instead, the Bay RMP's detailed workplan can include a clause allowing for resources up to \$27,000 to be used for coordination with the Delta RMP. The group charged Phil with developing a plan that will account for the ways in which RMP resources will be used to benefit the Delta RMP up to a value of \$27,000.

Action Item

- Communicate with the Delta RMP and Contra Costa County Stormwater Program that all of CCC should continue to pay fees to the Bay RMP (Phil Trowbridge)
- Prepare a list of actions that will be taken to coordinate with the Delta RMP. This list will be vetted with the Delta RMP co-Chairs and included in the 2016 Bay RMP Detailed Workplan (Phil Trowbridge)

10. Decision: Request for Undesignated Funds for monitoring California Toxics Rule (CTR) parameters during the 2015 water cruise and discussion of increased revenue from POTWs to cover these costs going forward

Karin North presented this request for undesignated funds to monitor for CTR parameters during the 2015 RMP Water Cruise. Monitoring during the 2015 Water Cruise would save \$20,000 relative to a separate monitoring effort in the winter, due to shared vessel costs. These funds would serve as an investment to show that many CTR parameters are currently below detection limits in receiving waters, which could then be used to negotiate fewer effluent monitoring requirements for POTWs and other dischargers with the Water Board. Cost savings from reduced POTW monitoring could then be transferred to the RMP. Karin noted that because several POTWs conduct some analyses in-house, estimated cost-savings may be lower than the original estimate.

Peter Carroll noted that refineries also conduct CTR monitoring twice a year and could potentially be added to this discussion, but may want to retain their own CTR monitoring due to reporting requirements for the EPA's Toxic Release Inventory.

The group was conditionally supportive of this effort, assuming results are used to negotiate changes in effluent monitoring requirements with the Water Board. Tom indicated that he has been clear with BACWA members that a potential reduction in effluent monitoring requirements would not translate into an overall cost savings, but rather a transfer of funds to RMP.

Items for Approval

- Adam Olivieri moved to approve the request for undesignated funds for monitoring California Toxics Rule parameters during the 2015 water cruise. Peter Carroll seconded the motion. The motion was carried unanimously by all present members.

Action Items

- Update the budget and deliverables for the 2015 Water Cruise to reflect the additional \$26,000 approved for CTR monitoring (Jennifer Sun)

11. Discussion: Update on State of the Estuary Conference and RMP Annual Meeting Planning

Phil Trowbridge outlined the plenary speakers and concurrent sessions planned for the RMP Annual Meeting section of the State of the Estuary Conference, and encouraged fee-paying RMP participants to pre-register on the SFEI website. He indicated that there is currently no cap on pre-registration, but the RMP can only accommodate about 120 free registration; if more than 120 pre-registrations are received, agencies may be given fewer free registrations than requested. Water Board staff will not be funded by the RMP, including those that have already pre-registered. Jim Ervin expressed approval of the Save the Date card design.

12. Discussion: Status of RMP Deliverables and Action Items

Phil Trowbridge briefly explained the status of all overdue deliverables on the RMP Deliverable Stoplight Report and overdue items on the Action Items report. Tom Mumley emphasized that all overdue deliverables should have a new deadline assigned and reported in the Stoplight Report.

Discussions on specific deliverables are described below:

- Tom expressed dissatisfaction with the current status of the coring manuscript. Phil indicated that Don's time was diverted towards Bay Margins study planning in recent months, but that he would push to Don to complete and submit this manuscript as soon as possible.
- Phil noted that the completion of manuscripts is often out of staff control, as this depends on journal review and acceptance. Karin North suggested that in these cases, the Stoplight report color display should be changed to reflect that staff have completed work within their control. Phil agreed and indicated that the structure of these reports will be reviewed and revised to better reflect the actual urgency and due dates for completing each item.
- Phil indicated that a new Nutrients Data Quality Objectives plan would be one of Rusty Holleman's first tasks once he arrives in August. A due date was set for October 2015.
- Phil relayed that the STLS workgroup has changed some of the deadlines of the STLS reports originally due at the end of July and September.

Jay provided an update on the status of the Pulse of the Estuary report, which is currently in design and on schedule. A laid-out version of the report will be distributed for review at the end of July.

13. Discussion: Preparations for the Multi-Year Planning Workshop in November and setting dates for the January 2016 and April 2016 meetings.

Phil Trowbridge proposed future Steering Committee meeting dates on January 19th and April 19th, 2016, and no objections were raised.

Jay Davis relayed to the group that the September Estuary News article will focus on SPATT monitoring of algal toxins. Topics for the December Estuary News article will be discussed at the November SC meeting.

Jay then presented potential topic options for the Science Update at the November SC meeting. Tom Mumley suggested that Jay present an update on PCBs during the planning portion of the meeting to help inform the planning process. Phil noted that Tom had previously agreed to provide an update on the PCB regulatory framework and science needs at the November SC meeting as well.

Tom urged the group to be more strategic about adjusting the Multi-Year Plan to the current lower budget during this year's MYP workshop. Phil cautioned that the group should continue to consider true program needs outside of budget constraints, and should not completely constrain workgroup proposal development based on the budget. Tom suggested reviewing the plan to transition the RMP to a fiscal year cycle at the MYP workshop.

Phil raised the issue of whether or not the RMP should engage in a program review. A full program review has not been completed in over 10 years. Multiple group members felt that the current program was mature and did not require a program review, and scientific peer-review was already built in to the program. Additionally, the program already receives regular feedback from the Water Board regarding the attainment of its main goal of supporting regulatory decision-making.

Tom pointed out that the RMP is currently undergoing internal review of its strategy and future directions, driven in large part by current budget constraints and efforts to solicit funds from new stakeholder groups. The group agreed that a program review is not immediately necessary, but that the \$80,000 set aside for program review should remain set aside. The deobligation of these funds can be easily reconsidered at a later date if they are needed to support other tasks.

Action Items

- Create calendar events on the SFEI website for the SC meetings on January 19 and April 19, 2016, and send meeting invites to the SC (Jennifer Sun).

14. Discussion: Plus/Delta

Karin indicated that she preferred the earlier meeting start time, and the group agreed that future meetings will be set to begin at 9:30 am. Peter Carroll approved of the selenium technical presentation and requested copies of the slides. Tom Mumley indicated that historical committee information should be more accessible on the committee pages on the SFEI website. Phil informed the group of the Bay RMP Google Site, which lists historical meeting documents.

Action Items

- Update the meeting summaries and agendas that are available on the RMP Google Site and redistribute the link to the SC and TRC (Jennifer Sun).
- Send slides for Selenium Science Update to Peter Carroll (Jennifer Sun).

The meeting adjourned at 3:25 pm.