



SAN FRANCISCO ESTUARY INSTITUTE

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RMP Multi-Year Planning Meeting

October 29th, 2012

San Francisco Estuary Institute

Draft Meeting Summary

Attendees:

Tom Mumley, SFBRWQCB

Mike Connor, EBDA

Luisa Valiela, USEPA

Lorien Fono, Patricia McGovern Engineers

Ariel Stevens, Dredgers (Bay Planning Coalition)

James Downing, Large POTW (City of San Jose)

Jim Ervin, Large POTW (City of San Jose)

Amy Chastain, Large POTWs (SFPUC)

Daniel Tafolla, Medium POTWs (Vallejo Sanitation)

Karin North, Small POTWs (City of Palo Alto)

Adam Olivieri, Stormwater (EOA/BASMAA)

Peter Carroll, Refineries (Tesoro)

Dave Allen, Industry (USS POSCO)

Jay Davis (SFEI)

Meg Sedlak (SFEI)

Ellen Willis-Norton (SFEI)

David Senn (SFEI)

Emily Novick (SFEI)

1. Meeting goals and ground rules

Tom Mumley welcomed everyone to the meeting, and asked attendees to introduce themselves. Tom explained that the purpose of the meeting was to set priorities for budget year 2014 and beyond, and check in about progress of the RMP. The main issue will be setting priorities for Pilot and Special Studies.

Discussion

Mike Connor requested to expand Item #2 on the agenda, “Anticipated management decisions and policies, and related information needs”, in particular discussing how RMP findings inform these decisions. Tom Mumley agreed that the group should consider the “so what?” aspect of RMP work as it sets priorities.

2. Anticipated management decisions and policies, and related information needs

Tom Mumley explained that the goals of this agenda item were to edit the table found on page 6 of the draft Multi-Year Plan (MYP). This is a comprehensive list provided by the Regional Water Quality Control Board (Water Board) of actions that may require information from the Regional Monitoring Program (RMP).

Discussion

Mike Connor thought this list was too long and vague to be useful. Given the small budget of the RMP, he proposed that we prioritize how we want to manage the Bay in the future, and what knowledge we can get from the RMP to shape this. Jay Davis responded that the priorities are not articulated in the table; however the budget allocation table through the funding allocations indicates which areas are of high priority (e.g., nutrients and stormwater). The RMP is not planning to put a lot of money in legacy pollutants in the next few years. Luisa Valiela agreed with Mike, and also asked for clarification around mercury and PCBs TMDLs. She wondered if the dates on the table were just a checkpoint, because these compounds are not scheduled for a TMDL review at this point. Tom Mumley clarified that there are 10-year horizons on these TMDLs, and the timeline indicated by this table is really just a check-in to evaluate new knowledge that has become available since the TMDLs were established. Mike said that agencies don't have enough money to do everything on this table, and they need to commit to what things they want to do and what information they need to do it. He would prioritize sediment and nutrients, as well as basic needs for mercury and PCB. Tom responded that the Water Board does not have the luxury of dropping some pollutants, like dioxin. Mike responded that at some point, we need to be clear with the public about what the priorities are. Amy Chastain asked if there are some information needs that are low-cost to fulfill. That way, these pollutants wouldn't be dropped from the list, and the necessary “regulatory boxes” could be checked. She would suggest seeking low-cost options for legacy pesticides and pathogens. Tom said he thinks about this more as optimization, not prioritization, and would like to avoid cutting something at the expense of something else. He thought the conversations for the rest of the day might give the group a better sense about how to modify the document, and asked for any final thoughts. Peter Carroll said that the selenium issue is important to the refinery community. Tom agreed that addressing selenium would be good, since there are some regulatory decisions coming up. Karin North said she thinks RMP participants will find it useful to have all of the TMDL/regulatory information in one place.

3. Overview of existing plans and budgets, possible future directions and updated Multi-Year Plan (MYP)

Jay Davis said the document was fairly easy to produce this year, either by filling in the blanks from previous years or pulling information that was produced for the 2012 RMP Update. He asked if there were any quick comments on the MYP plan at this time. There

were none, so he moved on to talk about the current 2014 planning budget. With all elements that are currently proposed, expenses exceed available funds by \$163,000 in 2014. The 2014 special studies budget indicates a decreased emphasis on legacy pollutants, and a high priority placed on small tributaries loading and nutrient studies. Forecasting/modeling and bioassay development for emerging contaminants are the next two highest priorities. Although the 2013 budget will not be discussed until the Steering Committee meeting (SC) later in the afternoon, Jay wanted to point out the 5.5% increase in the labor budget, which is due to an SFEI Board-approved increase in SFEI's multiplier. Jay also highlighted the projected increases in RMP funding of USGS monthly monitoring cruises in 2013 (lead by Jim Cloern). Additional discussion of contributions to USGS will take place in the afternoon SC meeting.

Discussion

Mike Connor asked if there was enough reserve money to cover the \$163,000 shortfall for 2014. Meg Sedlak said that there is about \$460,000 in reserves, and the projected deficits for 2012 and 2013 are not firm. Meg said the 2012 planning budget should be updated to reflect actual expenses which did not exceed the approved budget (i.e., by accounting for the difference between actual and budgeted costs from labs and other subcontractors, etc.). Tom Mumley clarified that the numbers on page 11 of the MYP are not as up-to-date as the planning budget being presented at the meeting. Tom Mumley point out that if Jim Cloern's USGS funding does get cut, increases in RMP funding of this work would quickly eat up the reserve.

Action Item

1. Finalize 2012 numbers (actual)

4. Specific program priorities for 2014 and general priorities for 2015-2018

I. Small tributaries loading strategy (page 12 of MYP)

Jay described the small tributaries loading strategy as one of SFEI's best-developed plans. It was developed 2 to 3 years ago and extended for 3 years, so it is time to update. Current plans for 2014 include \$25,000 for the spreadsheet model and \$300,000 for loads characterization in representative watersheds. Other possibilities include \$80,000 for continued source area monitoring for 2014 and beyond, and \$20,000 for program coordination for 2014, although these possibilities have not been vetted by the Sources, Pathways and Loadings Work Group (SPLWG).

Discussion

Mike Connor said he thought these projects were all good, but was wondering if they were all providing information that will affect decision-making. Tom Mumley noted that the amount spent on stormwater monitoring is about one-tenth of that spent on wastewater discharge monitoring. Tom thinks the major driver for stormwater is PCBs, and wonders if controlling loading will produce a response in the Bay. Mike didn't think it would, but Adam said that the PCB synthesis document that the RMP plans to finalize later this year will be informative in answering this question. Tom is hesitant to spend additional money on this issue. Through establishing TMDLs, millions of dollars are needed to control loads and those dollars don't exist. Mike

would like to see all of the stormwater players get together to decide whether this issue is relevant enough to continue spending money on it. Overall, Tom recognizes there is an ongoing need for monitoring tributary loads, but stakeholders should decide at what cost and to what end.

II. Nutrient strategy (page 14 of MYP)

Current plans for nutrients projects in 2014 in \$20,000 for coordination and additional funds for forecasting/modeling. Other possibilities include \$300,000 for installation and operation of moored sensors and \$120,000 to supplement Jim Cloern's monitoring work with USGS.

Discussion

Karin North asked for clarification on whether each additional moored sensor would cost \$300,000. Jay Davis responded that the actual sensor costs about \$100,000, and that David Senn estimates that it would cost about \$200,000 in labor to install, maintain and manage the data from two sensors in 2014. Karin asked whether a future nutrient monitoring program, which may eventually be transferred from USGS to SFEI, would be based on a handful of moored sensors and then quarterly cruises. David replied that this is one option being considered. The State Water Resources Control Board (State Board) recently gave \$50,000 for SFEI to sketch out a monitoring plan, and part of this development would be cost-comparison of different program structures. To sustain the current program run by USGS, costs would total about \$500,000 for 2013 and \$623,000 for 2014. Mike Connor noted that the budget table on page 16 of the MYP doesn't fully include additional funds from BACWA and the water contractors. David distributed a handout detailing estimated expenses and funds for the nutrients strategy through 2016, included anticipated funding from multiple sources. Mike asked if this nutrient-specific document accounts for increasing USGS costs, and Jay said that it did not, nor is it included in the table on page 16 of the draft MYP. Mike said that it is important to include this to ensure accuracy of the bottom line. Tom Mumley asked how the upcoming nutrients deliverables (e.g., Suisun Bay Synthesis, Nutrient Conceptual Model for SF Bay) might inform other needs. David says that he expects that these reports will be considered when writing 2014 Pilot and Special Studies proposals to the RMP. Tom said that given the costs of a monitoring program, there is an on-going dialogue among researchers to put forth a comprehensive nutrient research agenda. David agrees that national funding from agencies such as NSF or NOAA that couples researchers with a monitoring program would be useful, and exists in other estuaries (i.e. Columbia River, Chesapeake Bay, Puget Sound).

III. Forecasting (modeling) (page 18 of draft MYP)

Jay Davis explained that the modeling plan will address both nutrients and other contaminants. In the next few weeks, the plan will be fleshed out and the necessary work groups will be updated after the plan is complete. Current plans for 2014 include \$200,000 for model development. Other possibilities include \$100,000 for empirical data gathering for contaminants. If the model is to be applied to PCBs, Jay doesn't think there is an existing dataset that can explain how to link PCB

concentrations in the water column to sediment contamination or sources. Adam Olivieri asked whether these issues will be discussed in the PCB synthesis document. Jay said the document will include a discussion of existing datasets, and expects it to be complete by December 2012 or January 2013.

IV. Mercury (page 24 of draft MYP)

As of 2012, there are no special study funds allocated to mercury. The Mercury synthesis document was submitted to Environmental Research in July and an “RMP version” with more information and an executive summary will be completed in November 2012. This document recommends monitoring actions in marshes and ponds, since this is a currently a data gap, and Naomi Feger (SFBRWQCB) recommended that the RMP sponsor a workshop to coordinate mercury monitoring related to marsh restoration. Another data gap identified by this document is the role of atmospheric deposition. Although mining legacy is the main source of mercury to the Bay, the magnitude of the input from atmospheric deposition is unknown. Current plans for 2014 include continued Status & Trends monitoring, and there are no other urgent needs.

Discussion

Mike Connor noted that the 2012 Pulse shows a two-fold decrease in methylmercury concentration. Jay Davis said this might be due to increased water clarity and photo-demethylation, although this is just a hypothesis. Jay cited these changes as reason to continue monitoring methylmercury in the Status and Trends component of the RMP.

V. PCBs (page 26 of draft MYP)

Jay Davis re-iterated that the PCB synthesis document is in preparation and will be complete in December 2012 or January 2013, and it will be reviewed by the PCB team. Adam Olivieri and Mike Connor also asked to be included in the review process. Current plans for 2014 include model development (through the Forecasting/modeling funds discussed above) and continued Status & Trends monitoring.

Discussion

Mike Connor asked if modeling would occur only after completion of the PCB synthesis document, and Adam Olivieri said it would. Mike wondered whether there was truly a PCB problem in the Bay. Tom Mumley said it seems there is, given the fish consumption advisories for PCB. Mike commented that there is a lot of money being spent on PCB monitoring, modeling and management, but no change has come from it in other places such as Boston Harbor, New York Harbor, and Chesapeake Bay.

Action Items

1. Include Mike Connor and Adam Olivieri in review of PCB synthesis document

VI. Dioxins (page 28 of draft MYP)

Current plans for 2014 include \$40,000 for dioxin synthesis and simple modeling, and \$24,000 for monitoring in sport fish. There are 2013 dioxin funds that are currently on hold pending a decision on sediment cores.

Discussion

Tom Mumley said there are two regulatory issues that need to be considered: (1) the possibility of a TMDL for dioxins in the Bay and (2) permitting requirements. Mike Connor thinks the TMDL discussion should be pushed back, and he thinks interested parties (e.g., Baykeeper) would go along with that. Amy Chastain thought that the synthesis document might document load reductions, and Tom suggested that it might be useful to show that dioxin loads are decreasing. Mike responded that it might be worthwhile to think about whether the synthesis document would present any new information. If not, we could spend that \$40,000 on something else. If the data are pretty much what is to be expected, this could be reported in Status & Trends monitoring results. He said that the Office of Environmental Health Hazard Assessment has not emphasized dioxins, and this might be a sign about how they should be prioritized. Luisa Valiela said that dioxins are also not a high priority right now at the EPA.

Action Items

1. Shift \$40,000 for Dioxin synthesis to 2015.

VII. Emerging Contaminants (EC) (page 20 of the draft MYP)

Meg Sedlak said that the EC Strategy document is in progress and will include results from the state panel report, water board recommendations and EC Work Group (ECWG) recommendations. Current Plans for 2014 include \$56,000 for development of bioanalytical tools and \$20,000 for updating the EC strategy. Other possibilities for future work include follow up on the current use pesticide workshop, follow up on the NIST broadscan work, work on alternative flame retardants or possible additional bioanalytical tool development work.

Discussion

Mike Connor asked where NIST and SCCWRP are going with regards to EC. Meg Sedlak said that she thinks that NIST will probably continue method development. She doesn't think NOAA will be able to contribute funds to SFEI for EC work given the tremendous strain on these agencies. She agrees it is a good idea to talk to SCCWRP about how they are updating the Southern California Bight list. Tom Mumley wondered if EC should be considered part of Status & Trends, or should continue to be considered Pilot & Special Studies. Meg responded that the EC of greatest concern according to the (EC Strategy document) is PFOS, and this is already incorporated into S&T bird egg monitoring. Adam Olivieri said that the State Board should be pushed in the long term to develop the "on-ramp" for contaminants to be monitoring, and Mike Connor asked for clarification about where the State Board is going with regards to EC other than in recycled water. Tom said that the State Board is aware of the large costs associated with monitoring EC, but they would like to start

piloting the recommendations of the state panel on ECs. Tom thinks that we are already in Phase 3 or 4 of their recommendations as articulated in the panel report. Adam Olivieri said he is comfortable with where the RMP is going with respect to ECs. Meg added that there are already management decisions happening based on RMP data (e.g., flame retardant policies). Tom added that if anything pops out from the EC strategy and synthesis documents, those issues can be incorporated into the Program. Mike said that the biggest concern for him is PFOS, and he would like to see this discussed at next year's Annual Meeting, which will have an EC focus.

Action Items

1. Meg Sedlak to check in with SCCWRP about how they are updating contaminant list for Southern California Bight.

VIII. Exposure and effects (page 22 of draft MYP)

Current plans for 2014 include \$50,000 for finding a benthos reference site (per US Army Corps of Engineers suggestion) and looking at effects of emerging contaminants in fish via the bioanalytical tool study. Other possibilities include follow-up on sediment toxicity workshop. Effects on birds is not considered a pressing need at this time

Discussion

Tom Mumley said he thinks it is unlikely that the sediment toxicity follow-up will get funded. Even if we can prove the source of the toxicity, which may not be possible, he wonders what regulatory actions can follow. Meg Sedlak agrees that this point gets to the question of what impact RMP data has (the "who cares" question)

Action Item

1. Check with John Coleman/ Rob Lawrence about the future of the benthos reference site project

IX. Status & Trends (page 30 of the draft MYP)

Meg Sedlak says there are some changes to Status & Trends that reflects the "who cares" questions. Deeper cuts may be possible, particularly to benthos, and costs of contributing to USGS monitoring are projected to go up. Possible additions include margin sediment monitoring (in shallower waters than the current sampling vessel can sample). If the RMP were to sample shallow waters in all subembayments for a total of 47 sites, it would cost approximately \$550,000. If the margins are of interest to the stakeholders, a proposal will be vetted through the Technical Review Committee (TRC) and SC. Other additions include additional EC monitoring (pending EC strategy completion), toxicity (Water Board recommends keeping status quo) and monitoring dissolved oxygen in the margins.

Discussion

Jay Davis said the margins sediment project may be too expensive, but it's worth having the TRC take a look and make the decision. Mike Connor wondered how much additional information the RMP could add to the \$1.25 million that is about to

be spent by agencies on toxicity. This spending is due to a new State Board policy, and Jim Ervin added that the new policy will be adopted shortly, and if it is phased in, there may not be an enforcement aspect for several years. Jim asked if there was a sentinel species for toxicity, or what the ecological effect is. Tom Mumley responded that trying to determine ecological impact would require a lot of money, and that there may not be much for the RMP to do here. Mike added that if we were able to make good use of existing benthic data, we should do so, but he isn't sure that we are there yet. Peter Carroll suggested taking more frequent water toxicity data (rather than every 5 years, as it currently stands). Tom agreed that a quick review of Status & Trends toxicity data may reveal that we want more frequent sampling at more locations. Mike noted that aquatic toxicity only costs \$7,000, so it might be worth doing more frequently than once every 5 years. However, Tom wondered if we haven't yet seen a problem with aquatic toxicity, is there a reason to change testing frequency. An additional issue that Peter addressed was the new selenium water quality criterion and TMDL that will take effect next year. He thinks that collecting more data on selenium could be useful. Jay responded that the RMP currently only monitors selenium in sturgeon, but not in bivalves or birds. Extensive monitoring in a variety of sport fish species was conducted in 2009. Mike suggested that the RMP investigate costs of adding selenium to current biota monitoring.

Action Items

1. Estimate cost of adding selenium to current RMP biota monitoring (bivalves and birds)

5. Summary and Action Items

Tom Mumley asked the group if there was ample discussion on 2014 budget considerations to give perspective on what are considered priorities. Luisa Valiela asked if Jim Cloern is open to considering other program structures for his monitoring program. Meg Sedlak responded that as the RMP's contribution to this program grows, there might be more of an obligation to consider other options. Tom said that the costs to run the entire program, as they are now (\$138,000 for 2013, \$623,000 for 2014), are on par with the entire Status & Trends budget, and he isn't sure how much additional money there is to free up from Status & Trends. Mike Connor asked if there was any flexibility on the program management, data management or communications aspects of the RMP budget, and Meg said there wasn't. Tom added there may be some changes to the communications strategy based on the survey that was distributed after the October 2012 Annual Meeting.

Tom then asked for a review of action items. Mike said the only change he heard was pushing the \$40,000 for the dioxin synthesis back to 2015, and Adam Olivieri added there was also discussion about the \$50,000 for the benthos reference site, and this should be discussed with John Coleman. Adam also added that the changes in RMP contributions to and eventual transfer of Jim Cloern's work are not included in the 5-year planning spreadsheet, and Mike agreed this needed to be better defined. Peter Carroll also noted that the estimates for RMP nutrient funding differ between the 5-year planning spreadsheet and

David Senn's more detailed nutrient-specific budget. Meg Sedlak responded she expects David to prioritize and edit the budget after two upcoming deliverables are completed.

Jay Davis asked for comments on the draft MYP within two weeks.

Action Items

1. Refine estimates of RMP contributions to Jim Cloern's work, and include in 5-year planning spreadsheet.
2. Comments on the draft MYP to be complete by 11/12/2012