

# **RMP Steering Committee & Multi-Year Planning Workshop**

October 24, 2018 9:00 AM – 4:15 PM

## **REMOTE ACCESS**

Audio by Phone: (415) 594-5500, Access Code 943-326-397#

Slides: https://join.me/sfei-conf-cw1

## **AGENDA**

	MULTI-YEAR PLANNING WORKSHOP							
1.	Introductions and review goals for the meeting	9:00						
	Goals for the meeting:	Tom						
	<ul> <li>Provide overarching guidance to the TRC and Workgroups for selection of</li> </ul>	Mumley						
	special studies for 2020.							
	<ul> <li>Establish a general framework for planning for 2021 and beyond.</li> </ul>							
2.	Discussion: Anticipated management decisions and policies, and related	9:10						
	information needs	Tom						
	The Draft Multi-Year Plan contains a list of upcoming management decisions	Mumley,						
	relevant to the RMP. Steering Committee members will be asked to talk about	Group						
	their highest priority management decisions and to identify any issues that are							
	missing from the list. The RMP Manager will provide an update on any issues							
	identified during stakeholder meetings.							
	Materials: Draft 2019 Multi-Year Plan							
	https://www.sfei.org/sites/default/files/events/MYP 10122018.pdf							
	Desired outcomes:							
	Consensus on management drivers and deadlines for the RMP							
	Prioritized management decisions to inform in the next 5 years							
	Short Break	10:00						

3.	Decision: Setting Planning Budgets for Workgroups  To be efficient in proposal development and workgroup meetings, the Steering Committee needs to set clear planning budgets for each of the Workgroups.  Workgroups without a significant planning budget will not have a 2019 meeting. The outline for this agenda item is:  a) The Program Manager will present an overview of the Status and Trends monitoring design and the funding available for special studies in 2020-2022 (15 mins)  b) The Lead Scientist will present the types of special studies being proposed for each Workgroup (15 mins)  c) Discussion by the SC (60 mins)	10:10 Tom Mumley, Group							
	Materials: Draft 2019 Multi-Year Plan								
	<ul> <li>Desired outcomes:</li> <li>Decide on planning budgets for WGs</li> <li>Decide which WGs need to have meetings in 2019</li> <li>Decide on any multi-year plans to review in more detail in January</li> <li>Give direction to workgroups or the Technical Review Committee on topics that are a high priority for the Steering Committee</li> </ul>								
4.	Summary, Action Items, Adjourn Planning Session	11:40							
	Lunch (provided) and Social Events	11:45							
	STEERING COMMITTEE MEETING								
5.	Introductions and Review Agenda and Confirm Chairs for 2019	12:30 Tom Mumley							
6.	Decision: Approve Meeting Summary from July 25, 2018 and confirm/set dates for future meetings.  Proposed meetings (4th Wednesdays): SC: 1/23/19	12:45 Tom Mumley							
	SC: 4/24/19 SC: 7/24/19 SC: 10/23/19								
	Scheduled meetings: TRC: 12/13/18 TRC: 3/14/19 TRC: 6/13/19 TRC: 12/12/19								
	Materials: SC Meeting Summary, see pages 1-7								
	Desired outcome:  • Approve meeting summary, confirm existing meeting dates, and set dates for future meetings.								

7.	Information: TRC Meeting Summary	12:55
		Phil
	Topics discussed at the most recent TRC meeting included:	Trowbridge
	Review S&T Monitoring Design and Budgets	
	2017 Water Cruise Copper Results	
	Judging criteria for the Data Visualization Challenge	
	Communication Products and Agenda for RMP Annual Meeting	
	Materials: TRC Meeting Summary, see pages 8-15	
	Desired Outcome: Informed committee	
8.	Information: RMP Financial Update for 2017 Quarter 3	1:05
		Philip
	The RMP Financial Update report summarizes the balance of budgeted and	Trowbridge
	reserved RMP funds as well as its cash position.	Pat Walsh
	Materials: Financial Update Memo, see pages 16-35	
	Materials. I mariolal opuate Memo, see pages 10 00	
	Desired outcome: Informed committee	
9.	Decision: Approve Undesignated Funds to Analyze Samples of Runoff from	1:40
	the North Bay Fires for Chemicals of Emerging Concern	Meg
	Approve the use of \$22,000 of the Undesignated Funds to analyze stormwater runoff samples collected in Santa Rosa, CA (first fall flush of 2017), and samples collected in Napa and Sonoma Counties and generated by a large storm (spring 2018), following the 2017 North Bay fires using non-targeted analysis. Santa Rosa samples were collected by the North Coastal Regional Water Quality Control Board as part of their post-fire response but they have decided not to pay for the analysis. Napa and Sonoma County samples were collected by the San Francisco Bay Regional Water Quality Control Board and extracted and archived pending preliminary analysis of the first fall flush samples. Analyzing these sets of samples would enhance the RMP study of post-fire runoff study (funded at \$36,000) because they will augment the existing, but somewhat, limited data we have for a single storm in Napa and Sonoma watersheds.	Sedlak
	Materials: Funding request memo will be sent separately by 10/16/18.	
	Desired Outcome:  • Approve allocating \$22,000 from Undesignated Funds to analyze samples of stormwater runoff collected in Santa Rosa, Napa, and Sonoma, CA, following the 2017 North Bay fires using non-targeted analysis.	

10.	Decision: Confirm Fees for 2020	1:55					
	200000000000000000000000000000000000000	Philip					
	Following the RMP planning schedule, the SC reviews and approves the program	Trowbridge					
	fees for the year after next. In 2017, the SC approved a fee schedule for 2019-						
	2021, which had annual fee increases of 3% per year. The target fees for 2020						
	will be \$3,803,915. This agenda item is an opportunity to discuss these fees.						
	Materials: None						
	iviaterials. None						
	Desired Outcome:						
	Confirm 2020 fees.						
	Short Break	2:10					
11.	Decision: Approve the 2019 Budget and Detailed Workplan	2:25					
	TI 0040 B ( 'I I)	Philip					
	The 2018 Detailed Workplan and Budget presents the revenue, expenses and	Trowbridge					
	deliverables that are planned for 2019. In July, the Steering Committee approved the special studies for 2019. In September, the TRC reviewed proposed budgets						
	for Status and Trends Monitoring. The Detailed Workplan includes the special						
	studies plus Program Management, Governance, Data Services & Quality						
	Assurance, Annual Reporting, Communications, and Status and Trends						
	Monitoring. The Steering Committee needs to approve this workplan so that work						
	can begin.						
	Maria Bara Bara Bara Bara Bara Bara Bara						
	Materials: Detailed Workplan and Budget for 2019, see separate attachment						
	https://www.sfei.org/sites/default/files/events/2019%20RMP%20Detailed%20Wor						
	kplan%20and%20Budget.pdf						
	Desired outcome:						
	Approval of the 2019 Budget and Detailed Workplan.						
12.	Decision: Select Theme for the 2019 Pulse Report and Discuss Upcoming	3:05					
	Reports and Communications Products	Jay Davis					
	The 2010 Werkplan includes a Dules Benert. The Steering Committee needs to						
	The 2019 Workplan includes a Pulse Report. The Steering Committee needs to select a theme for this report. In addition, staff will give updates on upcoming						
	reports and communications products.						
	Toponto and communications products.						
	Materials: 2019 Pulse Theme Options, see pages 36-38						
46	Desired Outcomes: Informed committee	0.45					
13.	Discussion: Status of RMP Deliverables and Action Items	3:45					
	   Materials: Action Items & Deliverables Stoplight Reports, see pages 39-49	Phil Trowbridge					
	Materials. Action items & Deliverables Stoplight Reports, see pages 39-49	Trowbridge					
	Desired outcome: Informed committee about the status of RMP deliverables						
14.	Discussion: Plan agenda items for future meetings	3:55					
		Jay Davis					
	Desired Outcome: Identify future agenda items						
15.	Discussion: Plus/Delta	4:05					
16.	Adjourn	4:15					

#### Recently Completed RMP Reports/Products

Davis, J. 2018. 2018 Regional Monitoring Program Update. SFEI Contribution No. 906. San Francisco Estuary Institute: Richmond, CA.

https://www.sfei.org/documents/rmp-update-2018

Denslow, N.; Kroll, K.; Mehinto, A.; Maruya, K. 2018. Estrogen Receptor In Vitro Assay Linkage Studies. SFEI Contribution No. 888. San Francisco Estuary Institute: Richmond, CA. <a href="https://www.sfei.org/documents/estrogen-receptor-vitro-assay-linkage-studies">https://www.sfei.org/documents/estrogen-receptor-vitro-assay-linkage-studies</a>

Gilbreath, A.; Wu, J.; Hunt, J.; McKee, L. 2018. Pollutants of Concern Reconnaissance Monitoring Water Years 2015, 2016, and 2017. SFEI Contribution No. 840. San Francisco Estuary Institute: Richmond, CA.

https://www.sfei.org/documents/pollutants-concern-reconnaissance-monitoring-water-years-2015-2016-and-2017

Franz, A.; Trowbridge, P.; Salop, P. 2018. 2018 RMP Sediment Sampling and Analysis Plan. SFEI Contribution No. 904. San Francisco Estuary Institute: Richmond, CA. https://www.sfei.org/documents/2018-rmp-sediment-sampling-and-analysis-plan

Lin, D.; Sutton, R. 2018. Alternative Flame Retardants in San Francisco Bay: Synthesis and Strategy. SFEI Contribution No. 885. San Francisco Estuary Institute: Richmond, CA. https://www.sfei.org/documents/alternative-flame-retardants-san-francisco-bay-synthesis-and-strategy

Lin, D.; Sutton, R.; Shimabuku, I.; Sedlak, M.; Wu, J.; Holleman, R. 2018. Contaminants of Emerging Concern in San Francisco Bay: A Strategy for Future Investigations 2018 Update. SFEI Contribution No. 873. San Francisco Estuary Institute: Richmond, CA.

https://www.sfei.org/documents/contaminants-emerging-concern-san-francisco-bay-strategy-future-investigations-2018-update

Salop, P. 2018. 2018 RMP Bivalve Deployment Cruise Report. SFEI Contribution No. 903. San Francisco Estuary Institute: Richmond, CA. <a href="https://www.sfei.org/documents/2018-rmp-bivalve-deployment-cruise-report">https://www.sfei.org/documents/2018-rmp-bivalve-deployment-cruise-report</a>

Salop, P.; Franz, A. 2018. 2018 RMP Sediment Cruise Report. SFEI Contribution No. 907. San Francisco Estuary Institute: Richmond, CA.

https://www.sfei.org/documents/2018-rmp-sediment-cruise-report

Sedlak, M.; Sutton, R.; Wong, A.; Lin, D. 2018. Per and Polyfluoroalkyl Substances (PFAS) in San Francisco Bay: Synthesis and Strategy. SFEI Contribution No. 867. San Francisco Estuary Institute: Richmond, CA.

https://www.sfei.org/documents/and-polyfluoroalkyl-substances-pfass-san-francisco-bay-synthesis-and-strategy

Shimabuku, I.; Trowbridge, P.; Salop, P. 2018. 2018 Bivalve Deployment Cruise Plan. SFEI Contribution No. 892. San Francisco Estuary Institute: Richmond, CA. https://www.sfei.org/documents/2018-bivalve-deployment-cruise-plan

Shimabuku, I.; Trowbridge, P.; Salop, P. 2018. 2018 RMP Bivalve Retrieval Cruise Plan. SFEI Contribution No. 893. San Francisco Estuary Institute: Richmond, CA. https://www.sfei.org/documents/2018-rmp-bivalve-retrieval-cruise-plan

Shimabuku, I.; Pearce, S.; Trowbridge, P.; Franz, A.; Yee, D.; Salop, P. 2018. Field Operations Manual for the Regional Monitoring Program. SFEI Contribution No. 902. San Francisco Estuary Institute: Richmond, CA.

https://www.sfei.org/documents/field-operations-manual-regional-monitoring-program

Trowbridge, P.; Wong, A.; Davis, J.; Ackerman, J. 2018. 2018 RMP Bird Egg Monitoring Sampling and Analysis Plan. SFEI Contribution No. 891. San Francisco Estuary Institute: Richmond, CA. <a href="https://www.sfei.org/documents/2018-rmp-bird-egg-monitoring-sampling-and-analysis-plan">https://www.sfei.org/documents/2018-rmp-bird-egg-monitoring-sampling-and-analysis-plan</a>

Wu, J.; Trowbridge, P.; Yee, D.; McKee, L.; Gilbreath, A. 2018. RMP Small Tributaries Loading Strategy: Trends Strategy 2018. SFEI Contribution No. 886. San Francisco Estuary Institute: Richmond, CA. https://www.sfei.org/documents/rmp-small-tributaries-loading-strategy-trends-strategy-2018

Yee, D. 2018. 2017 RMP Bay Margins Sediment Samples Quality Assurance Report. San Francisco Estuary Institute: Richmond, CA.

https://www.sfei.org/documents/2017-rmp-bay-margins-sediment-samples-quality-assurance-report

Yee, D. 2018. 2017 RMP Water Samples Quality Assurance Report. San Francisco Estuary Institute: Richmond, CA.

https://www.sfei.org/documents/2017-rmp-water-samples-quality-assurance-report

Yee, D.; Franz, A.; Wong, A.; Trowbridge, P. 2018. 2018 Quality Assurance Program Plan for the Regional Monitoring Program for Water Quality in San Francisco Bay. SFEI Contribution No. 890. San Francisco Estuary Institute: Richmond, CA.

https://www.sfei.org/documents/2018-quality-assurance-program-plan-regional-monitoring-program-water-quality-san



# **Bay RMP Steering Committee Meeting**

July 25, 2018 San Francisco Estuary Institute

# **Meeting Summary**

# **Attendees:**

SC Member	Affiliation	Representing	Present
Eric Dunlavey	City of San Jose	POTW-Large	Yes
Leah Walker	City of Petaluma	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
Craig Conner	US Army Corps of Engineers	USACE	Yes
Tom Mumley*	SFB Regional Water Quality Control Board	Water Board	Yes
Naomi Feger	SFBRWQCB Alternate	Water Board	Yes

<sup>\*</sup> Chair, \*\* Vice Chair

# **Guests and Staff**

- Phil Trowbridge SFEI
- Jay Davis SFEI
- Ila Shimabuku SFEI

- Patrick Walsh SFEI
- Rebecca Sutton SFEI

# 1. Introductions and Review Agenda

Tom Mumley welcomed participants, allowed for introductions, and reviewed the agenda.

# 2. Decision: Approve Meeting Summary from April 25, 2018, and Confirm/Set Dates for Future Meetings.

There were no comments on the January SC meeting summary before approval. There were no objections to the October 24 meeting date. SC meetings were scheduled through October of 2019.

#### Decision

 John Coleman motioned to approve the April 25 Steering Committee meeting summary. Peter Carroll seconded the motion. The motion for approval was carried by all present members.

#### **Action Item**

• Finalize the April SC meeting summary. (Ila Shimabuku, 8/15/18)

# 3. Information: TRC Meeting Summary

Phil Trowbridge quickly summarized the June TRC meeting and its main focus: to come to consensus on recommended funding allocations for 2019 RMP special studies. Phil also reported on a discrepancy between two of Brooks Analytical's copper methods. Brooks had discovered an interference from titanium in one of the methods and were planning to rerun samples in order to obtain the final results. Phil mentioned that there were quite a few new representatives and alternates at the June TRC meeting. It was agreed that Steering Committee members should be in regular contact with the new TRC representatives to ensure a smooth transition and to transfer institutional knowledge.

# 4. Information: RMP Financial Update for 2018 Quarter 2

Phil Trowbridge commenced the RMP financial update by providing a big picture look at balances and surpluses from 2015 through 2018. He also summarized the \$144,000 deficit for 2018 due to lack of anticipated fees from dredgers (\$109,000) and overages

due to workgroup expenses that were \$35,000 higher than anticipated. The Steering Committee was in support of Phil's plan to cover the deficit: use dredger reserves (\$62,665) and a forecasted \$85,000 surplus from status and trends.

There was discussion about accessibility of dredging data. One participant recommended that Jim Mazza and Sheila Swett be the first points of contact for dredging numbers. The Steering Committee suggested that tools be developed to query the dredging volumes from the DMMO database to save staff time.

Phil Trowbridge and Jay Davis summarized the PCBWG's recommendation to unencumber \$30,000 from a 2018 special study (developing a PCB conceptual model for Richmond Harbor) and to redirect the funds towards further studies in San Leandro Bay and the Emeryville Crescent. The PCBWG recognized the value of developing a better understanding of PCBs at the Richmond Harbor Priority Margin Unit (PMU), however, felt the money would be better spent in 2019 by working toward completion of existing efforts at the San Leandro Bay and Emeryville Crescent PMUs rather than embarking on a new project. The RMP is aware of interest from the dredging community and Contra Costa County (Lucile Paquette on the SPLWG) in the Richmond Harbor and it remains on the list for future funding.

### Decision:

- John Coleman motioned to approve the following three financial items. Peter Carroll seconded the motion. The motion for approval was carried by all present members.
  - Allocate \$62,665 from the Dredger Reserve to partially offset the shortfall in 2018 local dredger fees.
  - Adjust the budgets for certain tasks in the 2017 and 2018 budgets to realize net cost savings of \$50,000.
  - Unencumber the \$30,000 allocated to the Richmond Harbor PCB Special Study in the 2018 Budget. These funds will be re-budgeted during the 2019 Special Studies decision.

# **Action Items:**

- Clean up contact list for RMP invoices. (Nina Buzby, 8/20/18)
- Confirm 2017 dredge volumes with DMMO and John Coleman. (Phil Trowbridge, 8/20/18)
- Hold a future discussion on increasing the amount for the RMP Undesignated Funds Reserve from \$200,000 to \$400,000 so as to better reflect moneys that are truly "reserves" versus "undesignated funds." (Phil Trowbridge, 10/15/18)

## 5. Discussion: RMP Fees for 2020

The Steering Committee discussed the current RMP funding structure and the target fees for 2020. The 2020 fees are proposed to be 3% higher than the 2019 fees. The Committee then reached consensus on approving RMP stakeholder fees for 2020.

# 6. Decision: Approve Special Studies for 2019 and List of Eligible RMP Studies for SEP Funding

Phil Trowbridge began this discussion by summarizing two changes that had taken place since the TRC meeting: (1) the proposal to Cal SeaGrant for Non-targeted Analysis in fish and wildlife was not funded, so the RMP proposal for \$25,000 of matching funds was removed; and (2) a new \$15,000 Supplemental Environmental Project (SEP) replaced the TRC-recommended \$18,000 of core RMP funds for PMU Stormwater PCB Monitoring.

Phil then provided a brief overview of the special studies and allowed for discussion. Some discussion took place around the future of the RMP's involvement in selenium monitoring. Ultimately, the Committee agreed to fund selenium monitoring in 2019 with the understanding that (1) this is the first year of a multi-year effort and (2) there will be more discussion and decisions down the line regarding RMP funding of selenium monitoring in future years. Committee members also mentioned that external sources (e.g., water contractors, refineries, Delta Stewardship Council) may be interested in funding selenium monitoring.

Overall, the SC agreed that strategies to avoid surpluses of proposals, such as that which occurred in 2019, should be brainstormed and that the SC has a responsibility to provide guidance and clear expectations to the TRC and workgroups on how to prioritize special studies. The SC also agreed that only using AMR monies to fund CEC work does not align with the original intended purpose of AMR funds and that, in future years, AMR funds should not be the sole source of funding for CEC projects. The SC also requested that specific nutrients projects be added to the SEP list in the fall after the effects of reduced RMP funding for nutrients are known.

The SC decided to fund two more studies than were recommended by the TRC using a mix of RMP Core Funds, Undesignated Funds, and Reserves: (1) Ethoxylated surfactants in Ambient Water, Margin Sediment, and Wastewater and (2) Sediment Bulk Density Study. The final funding allocations are summarized in the attached table.

#### Decision:

 The motion for approval of the revised list of special studies for 2019 and the revised SEP list was carried by all present members.

#### **Action Items:**

- Add discussion points to the Multi-Year Planning Workshop: the future of the RMP's selenium and microplastic workgroups. (Phil Trowbridge, 10/15/18)
- Bring forward specific nutrient studies that should be added to the SEP list during a fall SC meeting. (Phil Trowbridge, 12/31/18)

# 7. Science Update: North Bay Selenium Studies

Phil Trowbridge introduced Jay Davis and his science update on North Bay selenium. Jay began by mentioning that there were three selenium reports currently out for review: the sturgeon muscle plug report; the Sturgeon Derby report, and a report on monitoring selenium in the North Bay. Jay continued by presenting Robin Stewart's selenium in clam time series from 1995-2016. Her dataset showed a seasonal trend in concentration as well as a signature for wet and dry years. The muscle plug study found that, in 2017, selenium concentrations were low in sturgeon which provided another line of evidence for the hypothesis that selenium concentrations in the North Bay food web drop in wet years. Jay then talked about the Sturgeon Derby report and mentioned that selenium concentrations in sturgeon muscle plugs were comparable to concentrations in sturgeon muscle filets. He also found positive correlations between concentrations in ovaries and muscles as well as liver and muscle. Jay also summarized the new long-term selenium monitoring strategy that is to be finalized soon.

#### Action Item:

 Send South Bay selenium model report and dioxin report to Peter Carroll. (Jay Davis, 8/20/18)

# 8. Decision: Approve Agenda for 2018 Annual Meeting, and Discuss Upcoming Reports & Communications Products

Phil Trowbridge introduced Jay and his communications presentation and highlighted approval of the 2018 RMP Annual Meeting agenda and deciding the theme for the 2019 Pulse. The Steering Committee discussed the annual meeting agenda and provided the following input:

- Remove Joel Blum's talk on mercury isotopes from the agenda
- Add a "Program Update" type presentation by Phil Trowbridge that covers RMP history and forecast of work.
  - Focus more on forecasting what's coming since last year's 25th anniversary theme did a deep look at the history of the RMP
  - Highlight the new workgroups: microplastic & sediment. Summarize the motivations behind their creation, report back on their first year and plans for the future, etc.
  - Add some big picture context about management drivers and relative sources from all the RMP contributors.
- Add stormwater talks. GreenPlanIT is one possible topic.
  - Could fit nicely in the 303d session.
- Nutrients and CEC sessions are good.
- North Bay Fire talk is good.
- First session on 303d pollutants will not draw people in. Reword titles to entice audiences.
- Make sure each talk has a few take-away messages that managers will appreciate.
- Ensure that there's a balance between technical- and management- targeted talks. Either have both types of talks or have each talk contain technical aspects while still addressing bigger-picture management questions.
- Change "From Watersheds Through the Bay" session title to something like
   "How RMP Monitoring Helps to Reduce the Burden on Agencies."
- Rephrase title of bisphenols talk to indicate that bisphenols are ubiquitous.
- Put a sources/pathways contextual layer on all presentations.
- Replace session 1 with a session which takes a higher-level look at management concerns, sources, etc.

Jay then solicited comments on the draft RMP Update and decided to postpone the decision to pick a theme for the 2019 Pulse of the Bay due to lack of time. Nutrients/harmful algal blooms, dioxins, and *in vitro* assays, emerging contaminants, and non-targeted analysis and North Bay fires were all considered as potential topics for the September Estuary News article. Dioxins was selected as the topic.

#### **Action Items:**

- Work with Tom Mumley, Karin North, and Leah Walker to revise Annual Meeting agenda and share it with the Steering Committee by email for final comments. (Jay Davis, 8/27/18)
- Decide on the theme of the 2019 Pulse of the Bay during the October Steering Committee meeting. (Phil Trowbridge, 10/15/18)

# 9. Discussion: Develop Agenda for Multi-Year Planning Meeting

Phil Trowbridge began this item by highlighting the success of the 2018 RMP workgroup season but also the high cost associated with the expansion of RMP workgroups. Phil summarized the agenda for the Multi-Year Planning Workshop (MYPW), the current format of the Multi-Year Plan, and discussion that had been taking place around procedural changes intended to increase efficiency and cost savings. The Steering Committee agreed with Phil's idea to hold two MYPWs: one at the end of October and a second in January. The objective of the October MYPW would be set high-level direction and establish planning budgets for each workgroup. The purpose of the January MYPW would be for committee members to drill down on the multi-year plans for some workgroups to prioritize special studies for proposal development. The Committee also agreed to discuss the following topics at the October MYPW:

- Status and Trends Monitoring. How does nutrient monitoring fit into the Status and Trends monitoring design currently and in the future? How to integrate CEC monitoring?
- The future of the Exposure and Effects Workgroup and Microplastic Workgroups.
- The future of selenium monitoring for the RMP.
- Combine "strategy support" tasks for all the workgroups and forecast the funding needs over the next 5 years.
- What is the right buffer for planning budgets versus actual budget? I.e., what is
  the ideal ratio of summed proposal dollar amounts to the available budget? This
  year, the summed proposal dollar amounts were about 200% of the available
  budget for 2019. Should this target number be adjust to 175%? 150%? Less?
- Consider limiting Supplemental Environmental Project funds to only the most appropriate workgroups/special studies.
- Identify workgroups or topic areas that need further discussion during the January MYPW.

## 10. Discussion: Status of RMP Deliverables and Action Items

The SC decided to pass on the report out on RMP deliverables and action items and the remainder of agenda items in order to end the meeting on time. Phil Trowbridge solicited comments on reports that were currently out for review.

# 11. Discussion: Plus/Delta & Adjourn



# **Bay RMP Technical Review Committee Meeting**

September 19, 2018 San Francisco Estuary Institute

# **Meeting Summary**

## **Attendees**

TRC Member	Affiliation	Representing	Present
Nirmela Arsem	EBMUD	POTWs	
Mary Lou Esparza	CCCSD	POTWs	yes
Tom Hall	EOA, Inc.	POTWs	phone
Ross Duggan	SFPUC	POTWs	yes
Simret Yigzaw	City of San Jose	POTWs	yes
Bridgett DeShields*	Integral Consulting	Refineries	yes
Chris Sommers	BASMAA	Stormwater	yes
Shannon Alford	Port of SF	Dredgers	
lan Wren	San Francisco Baykeeper	NGOs	yes
Richard Looker	SFBRWQCB	Water Board	yes
Luisa Valiela	USEPA	US-EPA IX	yes
Sheila Swett	USACE	USACE	yes
Naomi Feger	SFBRWQCB	Water Board	
Paul Salop	AMS		Yes

<sup>\*</sup>Chair

# **Guests and Staff**

- Anna Hansen City of San Jose
- Jay Davis SFEI
- Phil Trowbridge SFEI
- Ila Shimabuku SFEI
- Don Yee SFEI

- Nina Buzby SFEI
  - Cristina Grosso SFEI
  - Rebecca Sutton SFEI
  - Diana Lin SFEI

# 1. Introductions and Review Agenda

Phil Trowbridge welcomed members of the Committee, quickly presented the agenda for the day, and allowed for introductions.

# 2. Decision: Approve Meeting Summary from June 14, 2018 and confirm/set dates for future meetings

No changes were made to the June 14 meeting summary before approval. Sheila Swett and Richard Looker were the only present TRC members not registered for the event. Chris Sommers asked to see the list of Annual Meeting registrations, to confirm that the desired audience would be present. (The TRC reviewed the list of registered attendance after lunch and did not have any concerns about those already registered.). Committee members were reminded of the October 24, 2018 Multi-Year Planning Workshop. There were no conflicts with the proposed dates for the March, June, or December 2019 TRC meetings. Bridgette DeShields mentioned a conflict with the September 2019 TRC meeting.

#### Decision:

Chris Sommers motioned to approve the June 14, 2018, TRC Meeting Summary.
 Ross Duggan seconded the motion. The motion for approval was carried by all present members.

## **Action Items:**

- Finalize the June 14, 2018, TRC meeting summary and post to the website. (Nina Buzby, 9/28/18)
- Use doodle poll to reschedule September 2019 TRC meeting. (Nina Buzby, 10/3/18)

# 3. Information: SC Meeting Summary from July 25, 2018

Phil Trowbridge summarized the July SC meeting and highlighted the efforts by the TRC and SC in approving funding for 2019 RMP special studies. Phil informed the Committee of the SC's acceptance of the TRC recommendations with the addition of \$80K of Undesignated Funds for two more proposals beyond what the TRC had prioritized. Phil also noted that the quantity of proposals this year was greater than usual, and the Multi-Year Planning Workshop should be used to give better direction on

the number and type of proposals the committees want. The SC discussion also included an extended discussion of the 2018 Annual Meeting agenda.

# 4. Decision: S&T Monitoring Design for 2019, Including Plans for Laboratory Intercalibration Studies

Phil Trowbridge presented an overview of 2019 S&T budgets and a few RMP-related activities: USGS moored Sensor support, USGS monthly nutrient and phytoplankton cruises, the RMP water cruise, 2019 sport fish sampling, and intercalibration studies. The budget for water sampling was comparable to previous spending, and slightly under budget when compared to the Multi-Year Plan estimate. The sport fish budget estimate was \$24K above the Multi-Year Plan estimate due to add-on studies and extra planning needs. However, Phil proposed to reduce the budget for intercalibration studies to \$47K instead of \$69K to make up this difference.

lan Wren introduced the topic of Jim Cloern's (USGS, monthly nutrient cruises) retirement in March 2019. With Cloern's main technician (Tara Schraga) also retiring, USGS will need to backfill both of those positions to keep the program going. A decision will be made within three months as to whether or not the program will continue and the RMP and NMS may need to assess if they can provide support for the staff replacement.

Phil presented the target analytes for both the water and sport fish sampling efforts, noting the removal of nutrient collection from the Golden Gate Bridge site and addition of fipronil to sport fish sampling. The TRC asked to be included on the invite to the Sport Fish Workgroup strategy meeting in the fall. Phil also mentioned the two add-on projects to sport fish efforts: archiving samples for analysis of microplastic and analysis of PCBs in shiner surfperch at Probability Based Monitoring sites.

Don Yee presented the selenium intercalibration (IC) study which consisted of two types of tissue sampling (clam and sturgeon) as well as water sampling. Paul Salop suggested adding Physis Environmental Laboratories as a third lab in the study and the TRC agreed. Don presented the topic of using fillets or muscle plugs to assess tissue concentrations, and the TRC moved to include fillets in the IC study. The TRC was supportive of the idea to move the location of the sturgeon fillets and plugs so that they were co-located on each sturgeon, but will defer to the Sport Fish WG to make the final decision. If there is a change to the location of the fillets, this change should be well documented. A boat will be needed to collect the water samples for the IC study. It was suggested to contact the Bureau of Reclamation and to piggy back on their monthly

water quality cruise. Don Yee also briefly outlined the PCBs in sport fish tissue IC study that will compare AXYS results to results from the previously used lab, WPCL.

Phil Trowbridge presented a recommendation to reduce costs for short-term archives. Options included discarding sediment and bivalve samples older than 10 years as well as older sport fish tissue that does not have a designated sample location. The TRC wanted to know how volume translated to cost reduction, as well as the frequency at which the short-term archives were utilized by SFEI or outside researchers. The TRC decided to move forward with the proposed archive discards, but would like SFEI to look into whether any of the sediment archives from random sites should be retained.

Phil Trowbridge asked for input from the TRC on collecting and reporting samples on alkylated PAHs. Bridgette DeShields noted the use of PAHs for fingerprinting in a current application with San Francisco Waterfront work. TRC moved to continue alkylated PAH monitoring in sediment given this fingerprinting advantage and also to continue monitoring in bivalves given the low cost, frequency, and to mirror NOAA mussel watch reporting of alkylated PAHs.

#### **Decisions:**

- The TRC approved the budgets for 2019 Status and Trends monitoring efforts.
- The TRC approved adding sport fish fillets to the selenium IC study design.
- The TRC approved the discarding of short-term archives as proposed by staff.
- The TRC agreed to continue analyzing alkylated PAHs in both sediment and bivalves for the foreseeable future.

## **Action Items:**

- Invite TRC to Sport Fish Workgroup meeting. (Jay Davis, 11/1/18)
- Reach out to Physis for participation in Selenium IC study and confirm MDLs and particulate feasibility. (Don Yee, 9/24/18)
- Look into feasibility of using the Bureau of Reclamation Water Quality Cruise for the Selenium IC study water sample collection. (Nina Buzby, 9/28/18)
- Inspect details in sediment PBM, short-term archives to determine whether they can be discarded. (Phil Trowbridge, 10/31/18)

# 5. Decision: Recommendation for 2017 Water Cruise Results for Copper

Don Yee summarized the dissolved copper method change by Brooks Analytical Laboratories. The new method resulted in 20-50% higher concentrations than in samples using reductive precipitation (RP) method. Moving forward the RMP will

continue both RP and triple quad (QQQ) methods to accumulate several years of data for possible comparison down the line.

#### Decision:

- The TRC moved to continue both RP and QQQ methods for future copper monitoring.
- TRC agreed to only publish copper data from 2017 that was measured using the RP method.

#### **Action Items:**

• Share the results of the copper IC study with SCWRPP. (Don Yee, 12/14/18)

# 6. Decision: Judging Criteria and Process for Data Analysis Challenge

Cristina Grosso presented an overview of the Data Visualization challenge that was previously discussed by the TRC, including the challenge scope, scoring criteria, and the judging schedule. The mission of the challenge is to attract folks to the RMP dataset and increase traffic to the CD3 data tool. The TRC provided sources to aid in challenge distribution. Richard Looker proposed that we record how participants found out about the challenge.

The TRC also gave a number of comments on the challenge flyer. These suggestions included a decision to change the challenge's name as well as a more specific approach to eligibility requirements. Participants must use at least some data from the SF Bay and submit an "Interpretive Summary/Abstract" that is up to one page. The TRC approved the judging schedule and the use of a 1-5 point scoring system on 4 equally weighted criteria and one binary/eligibility requirement relating to project completion. Phil Trowbridge suggested scheduling time in a future TRC meeting (possibly after the judging at the December TRC Meeting) to discuss what was gained and/or learned from the challenge.

#### **Decisions:**

- The TRC renamed the challenge to the: San Francisco Bay Data Visualization Challenge, Sponsored by the Bay RMP.
- The TRC finalized eligibility requirements 1 page abstract, data must come from CD3 and at least some aspect must relate to the SF Bay.

#### **Action Items:**

• Incorporate TRC suggestions to challenge flyer. (Cristina Grosso, 9/24/18)

- Send the challenge webpage to members of the TRC so they can circulate within their networks. (Cristina Grosso, 9/24/18)
- Announce challenge and disseminate amongst networks. (Cristina Grosso, 9/24/18)
- Score submissions prior to next TRC meeting and choose top 10 for presentation to the TRC. (Phil Trowbridge, Cristina Grosso, Nina Buzby, 12/7/18)
- Schedule time during the March TRC meeting to discuss lessons learned from challenge.(Phil Trowbridge, 3/1/19)

# LUNCH

# 7. Discussion: RMP Communications Products and Agenda for Annual Meeting

Jay Davis previewed various communication materials including the RMP Update and an upcoming article in the Estuary News. The TRC also was shown the agenda for the Annual Meeting, which, after feedback from the SC, focused more on looking forward and giving an update on the programs. The only post-SC change to the agenda was the replacement of Richard Looker with Naomi Feger as one of the moderators. Jay Davis facilitated discussion on possible themes for the 2019 Pulse to present to the SC, which included: nutrients, sediment, and pathways. Ian Wren highlighted the theme of pathways allowing for assessment of the challenges and success stories. Richard Looker proposed the theme of fate & transport, focusing on specific case studies, which may be useful for a following Pulse (after a pathways Pulse). The greatest level of support was for a theme related to pathways or fate & transport. Suggested topics for this theme were: pharmaceuticals in wastewater, stormwater loadings, PCBs in dredged material, nutrient modeling, dioxin synthesis, mercury isotopes (Joel Blum), and post-fire monitoring results.

# 8. Information: Preview of Annual Meeting presentations

Don Yee and Ila Shimabuku gave preview presentations of talks that will happen at the 2018 Annual Meeting. Don spoke about the Dioxin Synthesis, while Ila spoke about recently-received bisphenol data. The TRC provided feedback on both presentations as follows:

#### Dioxin

 The TRC encouraged more explanation about the background and context of dioxins and to organize the talk around the questions relating to the dioxin mass balance framework.

- Chris Sommers posed concern towards the point of co-management of dioxins
  with PCBs given the different sources for these two contaminants. He encourage
  messaging that acknowledges PCBs management may also inadvertently
  address dioxins as well, but not that management for PCB sources will also be
  effective against dioxin sources.
- Chris Sommers suggested being more explicit that the 10x greater atmospheric deposition estimate relates to deposition directly into the SF Bay, while local tributary input refers to runoff, contributions, or loads from local watersheds.
  - The TRC also wanted to know when the atmospheric deposition modeling was conducted, which was in 2012.
- The TRC recommended making the maps in the presentation have uniform scale bars, and consequent icon sizes, so that comparison between RMP and DMMO data is consistent.

## **Bisphenols**

- In the initial background of the presentation add more information why bisphenols are commonly used (ie. plasticizer, flame retardant). However, in general the TRC suggested spending more time talking about the data and less time on the context.
- Chris Sommers advised against using language of "Hot Spot" when describing a location with high concentrations in water in the Bay.
- The TRC suggested writing out acronyms.
- Richard Looker and Phil Trowbridge suggested filling summary statistics table that included "0" median detection levels with "ND" (non-detect).
- The TRC made suggestions on a graph comparing detection levels with the BPA PNEC value:
  - Apply a label for the PNEC line that identifies the value as BPA-specific.
  - Shorten the PNEC line so that it only applies to BPA detection levels, and not those related to BPS.
- The TRC suggested greater contrast/differentiation in maps colors.

# 9. Information: Status of Deliverables and Action Items

Phil Trowbridge noted a large fraction of reports are in the 95% finalized range, and the recent finalization of four small tributaries and loadings reports.

# 10. Discussion: Plan agenda items for future meetings

The TRC confirmed that the Pulse outline, an informatics update (from Amy Franz and Cristina Grosso), a presentation of the 2019 Workplan, judging and discussion of the data challenge, and a presentation by Karina Nielsen on the MapCO2 Buoy and Ocean Acidification should be included on the December 2018 meeting agenda.

# 11. Discussion: Plus/Delta

The TRC thanked staff for their efforts. Special thanks to Don Yee and Ila Shimabuku for pulling together their presentations in advance of the Annual Meeting. Chris Sommers and Richard Looker also noted the benefits of seeing the evolution of committee conversations through the copper monitoring and the data challenge work. There was also appreciation for seeing new faces in the room.

# Adjourn



4911 Central Ave, Richmond, CA 94804, p: (510) 746-7334, f: (510) 746-7300 www.sfei.org

DATE: October 12, 2018

TO: **RMP Steering Committee** 

FROM: Philip Trowbridge

RE: RMP Financial Update – Period Ending 9/30/18

The purpose of this memorandum is to provide an update of budgets and expenses for all open RMP budget years and the balances of reserve and designated funds. All of the values presented are current as of September 30, 2018, hereafter referred to as the "current period".

#### RMP 2018 BUDGET

#### Revenue

\$3,489,891 of the \$3,596,068 (97%) in 2018 fees have been collected. The expected fees are the sum of core fees (\$3,326,493) and supplemental fees paid by wastewater agencies (\$269,575) under Water Board Order R2-2016-0018 (hereafter referred to as Alternative monitoring requirement funds or AMR funds).

The remaining 2018 fees to be collected are:

- Caltrans (\$87,771)
- City of St. Helena wastewater agency (\$5,994)
- City of Napa River Park Marina Dredger (\$5,990)
- Port of Richmond Dredger (\$5,265)
- Benicia Port Terminal Pier 95 Dredger (\$1,159)

#### **Expenses**

Overall, 64% of the 2018 funds have been spent which is consistent with the expected burn rate for the year. The Program Management, Governance, QA & Data Services, Annual Reporting, and Communications tasks are between 42 and 79% spent. Within these tasks a few of the subtasks are likely to go overbudget but these overages will be offset by other subtasks ending underbudget. For the Status and Trends tasks, most of the remaining expenses are laboratory invoices and data management. The refrigeration costs for the archives in Oakland are expected to be \$6k more than budgeted. We have planned to execute an archive sample purge in 2019 to reduce these costs going forward. Ten of the special studies tasks are complete. These tasks ended with a cumulative budget overage of \$6.5k. This overage will be offset by the \$6k of unallocated funds in Task 070.

Overall, the 2018 budget is very tight. We expect to finish on budget but just barely. There will not be many left-over funds to unencumber from this budget year. The Steering Committee was made aware of this eventuality when this budget was presented and approved.

# <u>Unencumbrances this Quarter</u>

None

## PRIOR YEAR BUDGETS

## Revenue

All of the RMP fees and interest from prior years have been collected.

### **Expenses**

Some S&T and special study tasks remain open in the 2015, 2016, and 2017 budget years. These tasks need to remain open because they are multi-year studies or have open contracts awaiting a final invoice. The balance of funds in these years are \$33k, \$50k, and \$355k for 2015, 2016, and 2017, respectively. We anticipate finishing all the remaining tasks on budget.

For more detailed information on budgets and expenses by line item, please refer to Tables 1b-1d.

## **Unencumbrances this Quarter**

- A total of \$9,365 will be unencumbered from three tasks in the 2015 budget. Only one task will remain open in this budget year.
- A total of \$23 will be unencumbered from four tasks in the 2016 budget. Only three tasks will remain open in this budget year.
- Five tasks from the 2017 budget will be closed. These tasks have a cumulative deficit of \$1,590. To make up this deficit, the balance of unallocated funds (Task 070) will be reduced by the same amount. There will be no net unencumbrance as a result.

#### RESERVE FUNDS

### **Dedicated Set-Aside Funds**

The RMP has several dedicated set-aside funds. The purpose of these funds is to spread out the cost of large projects across multiple budget years. The current balance of all set-aside funds is **\$731,154**. The current balance of each set-aside fund is shown in Table 2.

## **Dedicated Dredger Reserve Fund**

The balance of the Dredger Reserve Fund was reset to zero on January 1, 2018, when new dredger fees took effect. In 2018, there was a \$62,665 credit to the Fund for dredger fees associated with the 6-month "stub year" that was created when the new fee schedule was developed. There was also a debit of \$109,060 because the local dredger fee payments were this amount below their target for the year. Therefore, the balance of the Dredger Reserve is currently -\$46,395 (a deficit). It is expected that a fee surplus in a future year will make up for this deficit in 2018. Table 3 tracks the running balance of the Dredger Reserve Fund.

#### **Undesignated Funds**

The RMP has a policy to maintain a Reserve of Undesignated Funds of at least \$200,000 to allow for response to unanticipated funding needs or revenue shortfalls. Any remaining Undesignated Funds are available for spending at the discretion of the Steering Committee. Figure 2 shows how the balance of Undesignated Funds has changed over time. The balance of Undesignated Funds through the current period is \$855,483. The balance increased by \$29,749 in the last quarter due to unencumbrances from the 2017 and 2018 budget years. Table 4 shows the withdrawals and deposits in the Undesignated Funds during the last two budget years.

Proposal: The Steering Committee recommended updating the policy to hold \$200,000 of Undesignated Funds as a Reserve. The proposal is to update this amount to \$400,000 (which is approximately 10% of the RMP yearly operating budget) starting with the 2018 quarter 4 financial report.

#### Supplemental Environmental Project (SEP) Funds

The total amount of RMP SEP funds received through the current period is \$1,346,500 (Table 5a). Descriptions of proposed or approved projects are shown in Table 5b. A total of \$18,000 of SEP funds have been received that are not yet committed to a project. As of the current period, \$827,293 of the funds have been spent, leaving a balance of \$525,207. See Table 5a for a line item breakdown of expenses for the approved projects (only open projects shown).

#### **OVERALL BUDGET SUMMARY**

Table 6 provides a summary of RMP budgets, expenses, and reserve funds across all years.

\_

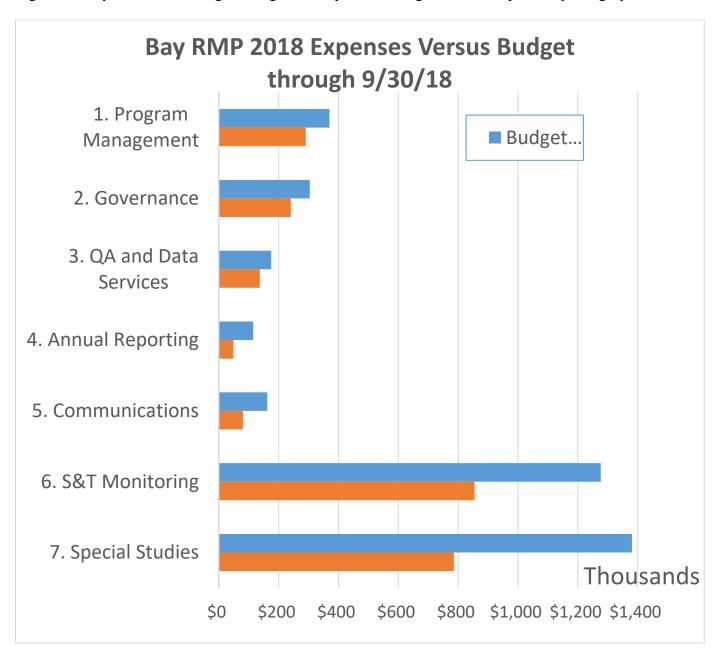
<sup>&</sup>lt;sup>1</sup> In December 2016, the Fee Schedule was updated to cover the 2017-2019 period. One of the changes was to switch from a fiscal year to a calendar year basis Specifically, for the last cycle of the old Fee Schedule, the fees were assessed for the period 7/1/15-6/30/16. For the first cycle of the new Fee Schedule, the fees were be assessed using the period 1/1/17-12/31/17. This left a 6-month gap of 7/1/16 to 12/31/16 (the "stub year"). Dredgers with in-Bay dredge disposal in this stub year was charged a fee for this disposal using the old Fee Schedule.

#### FOR STEERING COMMITTEE APPROVAL

- A total of \$9,365 will be unencumbered from three tasks in the 2015 budget. Only one task will remain open in this budget year.
- A total of \$23 will be unencumbered from four tasks in the 2016 budget. Only three tasks will remain open in this budget year.
- Five tasks from the 2017 budget will be closed. These tasks have a cumulative deficit of \$1,590. To make up this deficit, the balance of unallocated funds (Task 070) will be reduced by the same amount. There will be no net unencumbrance as a result.
- Proposal: The Steering Committee recommended updating the policy to hold \$200,000 of Undesignated Funds as a Reserve. The proposal is to update this amount to \$400,000 (which is approximately 10% of the RMP yearly operating budget) starting with the 2018 quarter 4 financial report.

# **Figures and Tables**

Figure 1a: Bay RMP 2018 Budget. Budget and expenses through the current period by category.



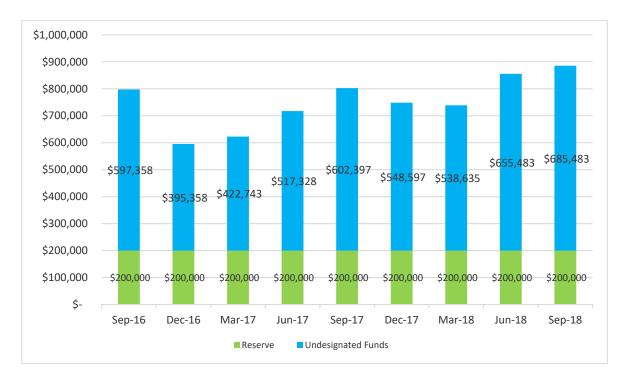


Figure 2: Bay RMP Undesignated Funds. Balance over the past two years. The height of the bar shows the total balance of the Undesignated Funds. However, the bar is color coded to indicate the RMP policy that \$200,000 of the Undesignated Funds should not be spent.

Table 1a: Bay RMP 2018 Budget. Budget and expenses through the current period by line item.

Task		Subtask	Budget	Expenses	Percent
			Final	JTD	Spent
Task Number: 001 Program Management	Α	Program Planning	\$40,000	\$18,753	47%
	В	Contract and Financial Management	\$160,000	\$129,133	81%
	С	Technical Oversight	\$50,000	\$47,848	96%
	D	Internal Coordination	\$80,000	\$70,218	88%
	Е	External Coordination	\$30,000	\$21,973	73%
	F	Administration	\$10,000	\$2,465	25%
Task Number: 001 Program Management Total			\$370,000	\$290,389	78%
Task Number: 002 Governance	Α	SC Meetings	\$49,600	\$33,540	68%
	В	TRC Meetings	\$49,600	\$42,902	86%
	С	WG Meetings	\$145,000	\$145,665	100%
	D	External Science Advisors	\$60,000	\$18,266	30%
Task Number: 002 Governance Total			\$304,200	\$240,372	79%
Task Number: 003 QA and Data Services	Α	Quality Assurance System	\$30,000	\$25,942	86%
	В	Online Data Access: CD3	\$65,000	\$63,869	98%
	С	Database Maintenance	\$50,000	\$31,089	62%
	D	Updates to SOPs and Templates	\$30,000	\$16,099	54%
Task Number: 003 QA and Data Services Total			\$175,000	\$136,999	78%
Task Number: 004 Annual Reporting	Α	RMP Update Report	\$55,000	\$35,029	64%
	В	Annual Meeting	\$60,000	\$13,604	23%
Task Number: 004 Annual Reporting Total			\$115,000	\$48,633	42%
Task Number: 005 Communications	Α	Communications Plan Implementation	\$42,000	\$29,533	70%
	В	Stakeholder Engagement	\$20,000	\$10,974	55%
	С	Responses to Information Requests	\$12,000	\$1,801	15%
	D	Outreach Products	\$30,000	\$14,901	50%
	Ε	Presentations at Conferences and Meeting	\$45,000	\$14,178	32%
	G	RMP Website Maintenance	\$13,000	\$9,087	70%
Task Number: 005 Communications Total			\$162,000	\$80,474	50%

Table 1a: Bay RMP 2018 Budget. Budget and expenses through the current period by line item.

Task		Subtask	Budget Final	Expenses JTD	Percent Spent
Task Number: 006 S&T Monitoring	Α	USGS Sacramento Support	\$250,000	\$250,000	100%
	В	USGS Menlo Park Support	\$235,000	\$235,000	100%
	С	2018 Bivalve Cruise	\$102,500	\$50,689	49%
	D	2018 Bivalve Cruise Data Mgmt	\$15,000	\$916	6%
	Ε	2018 Bird Egg Monitoring	\$182,000	\$41,243	23%
	F	2018 Bird Egg Monitoring Data Mgmt	\$40,000	\$2,693	7%
	G	2018 Sediment Cruise	\$255,000	\$123,249	48%
	Н	2018 Sediment Cruise Data Mgmt	\$36,000	\$9,908	28%
	I	S&T Laboratory Intercomparison Studies	\$30,000	\$26,666	89%
	J	Sample Archive	\$47,000	\$39,644	84%
	K	2018 S&T Field Sampling Report	\$10,000	\$334	3%
	L	Acoustic Release System Purchase	\$74,500	\$74,471	100%
Task Number: 006 S&T Monitoring Total			\$1,277,000	\$854,812	67%
7. Special Studies		Task Number: 020 Special Study: PCB Strategy Support	\$10,000	\$11,040	110%
		Task Number: 022 Special Study: PCB San Leandro Bay Fish	\$21,000	\$15,415	73%
		Task Number: 025 STLS Unallocated Funds	\$25,000	\$0	0%
		Task Number: 026 STLS Data Analysis	\$100,000	\$100,439	100%
		Task Number: 027 STLS Management support	\$32,000	\$24,804	78%
		Task Number: 028 Trends Road Map	\$0	\$0	
		Task Number: 029 RWSM	\$7,000	\$2,950	42%
		Task Number: 030 WY18 POC monitoring	\$125,000	\$58,423	47%
		Task Number: 031 STLS AFR Conceptual Model Dev	\$13,000	\$14,426	111%
		Task Number: 032 EC Microplastic in Bivalves	\$45,600	\$10,610	23%
		Task Number: 033 EC Strategy Support	\$65,000	\$46,439	71%
		Task Number: 034 EC CUP in Margin Sediment and Water	\$128,970	\$69,528	54%
		Task Number: 035 EC Pharmaceuticals in Wastewater	\$30,000	\$32,664	109%
		Task Number: 036 EC Non-Targeted Analysis of Sed & Water	\$101,000	\$12,156	12%
		Task Number: 037 EC Archive Collection for PFAS Margin Se	\$2,500	\$2,517	101%
		Task Number: 038 EC Archive Collection for NPE Margin Sed	\$2,500	\$2,489	100%

Table 1a: Bay RMP 2018 Budget. Budget and expenses through the current period by line item.

Task	Subtask	Budget Final	Expenses JTD	Percent Spent
	Task Number: 039 Moored sensor / DO /biogeochem	\$230,229	\$190,661	83%
	Task Number: 040 Channel Monitoring	\$119,771	\$71,778	60%
	Task Number: 043 Selenium Strategy Support	\$10,000	\$9,859	99%
	Task Number: 045 Sediment Workgroup Support	\$10,000	\$9,963	100%
	Task Number: 046 Sediment DMMO Database Support	\$55,000	\$28,910	53%
	Task Number: 047 Sediment Dumbarton Bridge Flux Monitorin	\$120,000	\$1,434	1%
	Task Number: 048 Sediment Mallard Island Flux Monitoring	\$30,490	\$30,000	98%
	Task Number: 050 EE Strategy Support	\$10,000	\$12,006	120%
	Task Number: 051 Sediment Bioaccumulation Guidance	\$30,000	\$21,594	72%
	Task Number: 052 EE Benthic Community Synthesis	\$21,000	\$0	0%
	Task Number: 053 EC North Bay Wildfire Monitoring	\$36,000	\$5,770	16%
7. Special Studies Total		\$1,381,060	\$785,876	57%
8. Unallocated	Task Number: 070 Unallocated	\$6,167	\$0	0%
Grand Total		\$3,790,427	\$2,437,555	64%

Table 1b: Bay RMP 2017 Budget. Budget and expenses through the current period by line item.

Task		Subtask	Budget Final	Expenses JTD	Percent Spent	Status	Surplus or Deficit
Task Number: 003 QA and Data Services	Α	Quality Assurance System	\$40,000	\$40,299	101%	Inactive	
Task Number: 006 S&T Monitoring	D	2017 Water Cruise Lab Expenses	\$45,000	\$41,455	92%	Unencumber	\$3,545
	F	2017 South Bay Margins Sediment Study	\$255,000	\$202,664	79%	Active	
	Н	Global Passive Sampling Initiative	\$8,000	\$6,154	77%	Active	
	L	PBDE Analysis for Archived 2016 Bird Egg	\$14,300		0%	Active	
7. Special Studies		Task Number: 021 PCB Steinberger Slough Conceptual Model	\$60,000	\$19,259	32%	Active	
		Task Number: 022 Dioxin Synthesis	\$52,000	\$54,882	106%	Unencumber	(\$2,882)
		Task Number: 028 STLS Trends Strategy	\$100,000	\$101,658	102%	Unencumber	(\$1,658)
		Task Number: 029 STLS Regional Watershed Model	\$40,000	\$39,726	99%	Unencumber	\$274
		Task Number: 030 STLS Wet Weather Characterization	\$200,000	\$188,222	94%	Active	
		Task Number: 031 EC PFAS Synthesis	\$56,300	\$57,169	102%	Unencumber	(\$869)
		Task Number: 032 EC Imidacloprid	\$40,110	\$21,909	55%	Active	
		Task Number: 034 EC Phosphate Flame Retardant Water Monit	\$47,125	\$23,211	49%	Active	
		Task Number: 035 EC Bisphenol Water Monitoring	\$50,000	\$22,290	45%	Active	
		Task Number: 036 EC Triclosan Fish Monitoring	\$41,300	\$27,475	67%	Active	
		Task Number: 037 EC Microplastic Study	\$75,000	\$36,428	49%	Active	
		Task Number: 039 Nutrient Moored Sensor Monitoring	\$220,000	\$207,521	94%	Active	
		Task Number: 040 Nutrient Ship-Based Monitoring	\$153,000	\$118,120	77%	Active	
		Task Number: 045 Selenium 2017 Derby Monitoring	\$42,000	\$34,212	81%	Inactive	
8. Unallocated		Task Number: 052 Sediment Strategy Development	\$50,000	\$11,391	23%	Active	
		Task Number: 070 Unallocated	\$20,352	\$0	0%	Inactive	
Total			\$1,609,487	\$1,254,045	78%	Balance: \$355442	(\$1,590)

Table 1c: Bay RMP 2016 Budget. Budget and expenses through the current period by line item.

Task	Subtask	Budget Final	Expenses JTD	Percent Spent	Status	Surplus or Deficit
7. Special Studies	Task Number: 030 MRP POC Monitoring	\$150,435	\$150,361	100%	Unencumber	\$74
	Task Number: 031 EC Non-Targeted Analysis	\$52,000	\$38,746	75%	Active	
	Task Number: 037 Nutrients Unallocated Funds	\$9,282	\$9,282	100%	Unencumber	\$0
	Task Number: 038 Nutrients Margins DO Monitoring	\$200,000	\$186,496	93%	Active	
	Task Number: 040 Nutrient Monitoring Program Development	\$20,000	\$6,936	35%	Active	
	Task Number: 041 Nutrient Chlorophyll a Analysis	\$15,718	\$15,732	100%	Unencumber	(\$14)
	Task Number: 042 Nutrient Data Management	\$25,000	\$25,036	100%	Unencumber	(\$36)
8. Unallocated	Task Number: 070 Unallocated	\$9,657	\$0	0%	Inactive	
Total		\$482,092	\$432,589	90%	Balance: \$49503	\$23

Table 1d: Bay RMP 2015 Budget. Budget and expenses through the current period by line item.

Task	Subtask	Budget Final	Expenses JTD	Percent Spent	Status	Surplus or Deficit
7. Special Studies	Task Number: 037 Nutrients: Modeling	\$165,000	\$140,919	85%		
	Task Number: 038 Nutrients: High-Frequency Mapping Study	\$115,000	\$114,936	100%	Unencumber	\$64
	Task Number: 046 Selenium Sturgeon Tissue Plug Monitoring	\$35,000	\$34,828	100%	Unencumber	\$172
8. Unallocated	Task Number: 070 Unallocated	\$9,129	\$0	0%	Unencumber	\$9,129
Total		\$324,129	\$290,683	90%	Balance: \$33446	\$9,365



DATE: October 16th, 2018

TO: RMP Steering Committee

FROM: Philip Trowbridge, RMP Manager

RE: Request for Additional Funds to Complete Analysis of Samples of Runoff from

the North Bay Fires for Chemicals of Emerging Concern

## REQUESTED ACTION

Approve the use of \$22,000 of the Undesignated Funds to analyze samples of stormwater runoff collected in November 2017 from the Santa Rosa area, and in January 2018 from the Napa and Sonoma area, following the 2017 North Bay fires using non-targeted analysis. The Santa Rosa samples were collected in November by the North Coast Regional Water Quality Control Board as part of their post-fire response, but they have decided not to proceed with the analysis. The San Francisco Bay Regional Water Quality Control Board collected samples from Napa and Sonoma from the November 2017 storm, which are already providing valuable insights as to chemicals that may be present after wildfires. A second round of stormwater samples was collected in January 2018 from Napa and Sonoma.

Analyzing the 2017 Santa Rosa and 2018 Napa and Sonoma samples would significantly enhance the RMP study of post-fire runoff because they will augment the existing, but somewhat limited data we have to date. The Santa Rosa watershed is more densely populated than Napa and Sonoma, so non-targeted analysis of these samples will allow identification of contaminants linked to burning of structures and their contents. Repeat sampling at the Napa/Sonoma sites will help to hone the preliminary list of CECs detected at wildfire-impacted sites.

## FISCAL SITUATION

Undesignated Funds: \$885,483 (as of 9/30/18)

#### **EXPLANATION**

In 2017, wildfires devastated communities in the North Bay, burning over 8,500 buildings and 210,000 acres. The plume of smoke from these fires blanketed not only the North Bay but also much of the Bay Area, resulting in poor air quality. Previous wildfires in Southern California have shown a dramatic increase in suspended sediment, metals and polycyclic aromatic hydrocarbon (PAHs) concentrations in stormwater runoff, but this is only a small fraction of the

compounds that are likely present in the smoke, ash, and combustion debris that remain in the watershed after the fires. The Regional Water Quality Control Board (Region 2) collected stormwater from the burned watersheds in the Napa and Sonoma area in November and then again in January to analyze for conventional pollutants such as total dissolved solids, ammonia and nitrogen, metals and PAHs. To date, the results from the conventional pollutant analyses do not suggest any issues of significant concern.

To complement the conventional analysis and to provide a more comprehensive picture of contamination concerns, the Steering Committee approved RMP funds to be used to analyze the November Napa/Sonoma samples for CECs using non-targeted methods. The preliminary analysis has detected hundreds of unique contaminant signals, and has specifically identified several unusual contaminants that may be associated with wildfires and may be of concern.

We are requesting additional funding to analyze the second round of samples collected at the Napa and Sonoma sites, to prioritize which of the hundreds of as-yet unidentified contaminants should be identified and examined further, and to ascertain whether the chemicals of concern that have already been identified are truly unique to wildfires. Repeat sampling at Napa and Sonoma will help to winnow the list of CECs associated with wildfires. In particular, we expect to observe continued presence of nonpolar, fire-related contaminants in the second round of samples, whereas polar, fire-related contaminants may decline as they are solubilized and washed off the landscape.

At the same time stormwater samples were collected in Napa and Sonoma in November, the North Coast Regional Water Quality Control Board (Region 1) conducted a parallel effort to sample creeks in the Santa Rosa area that were also analyzed for conventional pollutants. Four of these samples were extracted for non-targeted analyses. However, subsequent to the sampling, Region 1 has decided not to fund the non-target analysis of these samples.

We are requesting additional funding to analyze the Region 1 samples using non-targeted methods. These results will be valuable for comparative purposes because the Santa Rosa samples were collected from areas where more buildings were burned. Therefore, the results are likely to highlight CECs that are associated with wildfires in developed areas, an unusual and alarming aspect of the North Bay fires.

The RMP's initial allocation of \$36,000 towards non-targeted analysis of fire-impacted stormwater samples was appropriately limited given the exploratory nature of this project. Preliminary findings do indicate the presence of fire-related contaminants in samples, some of which may be of potential concern and could be considered as part of development of post-fire monitoring protocols. To more firmly establish these contaminants' link to the fires, and to identify a broader suite of fire-related contaminants, additional funding of \$22,000 is requested.

#### Budget

Due to the extensive in-kind contributions from the Region 1 field crew, SFEI, and DTSC for analysis of non-targeted samples, the cost this information is \$22,000. The proposal is to increase the budget for the existing RMP project (3018-053) by this amount to pay for these analyses.

Budget Line Item	Existing Budget	Amendment	Revised Budget
Labor	\$22,200	\$2,000	\$24,200
Subcontractors	\$12,800	\$20,000	\$32,800
Direct Costs	\$1,000		\$1,000
Total	\$36,000	\$22,000	\$58,000

## **Budget Justification**

### Sample Collection Costs

The samples have been collected and shipped to SDSU and DTSC.

## Laboratory Costs

The DTSC has conduct the first round polar-focused, non-targeted analyses *pro bono;* however, they are requesting funding to defer some of the costs for the second round of analyses of Napa and Sonoma samples. San Diego State University will charge \$1,400 per sample, and will not charge for analyses of blanks. Much of the cost of this analysis is associated with the data interpretation to identify new analytes, which is quite time intensive.

#### Reporting Costs

SFEI will summarize the results in a short technical memorandum and provide presentations to the ECWG, TRC, and SC if requested. A slight increase in the reporting costs has been requested (\$2,000) to cover additional coordination among the laboratories for the additional samples and technical calls. Preparation of a draft manuscript for publication in a peer-reviewed journal will be the responsibility of the analytical partners (Drs. Hoh and Dodder at SDSU and Drs. Park and Petreas at DTSC), and will require relatively little RMP staff time.

#### Schedule

Deliverable	Due Date	
Task 1. Field collection of stormwater samples	Nov 2017 – Jan 2018	
Task 2. Laboratory analysis of samples	March 2019	
Task 3. Update to ECWG on preliminary results	April 2019	
Task 4. Review of data	April – June 2019	
Task 5. Draft manuscript and Memorandum to TRC	Summer 2019	
Task 6. Final manuscript	Fall 2019	

Table 2: Bay RMP Dedicated Set-Aside Funds. Balances as of the current period.

Reserve Type	Purpose	Balance
Dedicated Set-Aside Fund	Program Review	\$88,179
Dedicated Set-Aside Fund	S&T Monitoring	\$592,975
Dedicated Set-Aside Fund	Monitoring Contingency	\$50,000
	TOTAL	\$731,154

Table 3: Bay RMP Dedicated Dredger Reserve Fund. Yearly surplus (deficit) and total surplus (deficit) as of the current period. Note that the previous running surplus/deficit was reset to \$0 in 2018.

Year	Yearly Surplus/Deficit	Balance
Starting Balance from "Stub Year"		\$6,768 (AR)
		\$55,897 (received)
		\$62,665 (total)
2018	-\$109,060	-\$46,395

Table 4: Bay RMP Undesignated Funds. Withdrawals and deposits during the last two budget years and total balance as of the current period.

Budget Year	Deposit or Withdrawal	Authorization	Date of Authorization	Amount	Comment
2017	Withdrawal	Steering Committee	11/1/2016	-\$133,000	Borrowing 2018 margins funds. These funds will be repaid in 2018. SC approved 11/1/16 as part of budget approval.
2017	Withdrawal	Steering Committee	11/1/2016	-\$35,000	Match for Moore Fdn Microplastics Grant. SC approved 11/1/16.
2017	Withdrawal	Steering Committee	11/1/2016	-\$15,000	Increase budget selenium strategy support (task 043). Approved by SC on 11/1/16.
2017	Withdrawal	Steering Committee	11/30/2016	-\$19,000	Increase budget for selenium monitoring (task 044). Approved by SC by email on 11/30/16.
2015	Deposit	Steering Committee	1/17/2017	\$39,385	Portion of the unencumbered funds from 2015 budget
2017	Withdrawal	Steering Committee	1/17/2017	-\$12,000	Increase budget for dioxin synthesis task (task 022). Approved by SC on 1/17/17.
2016	Deposit	Steering Committee	4/26/2017	\$134,585	Left-over funds from 3016.00 unencumbered at the 4/26/17 SC meeting.
2017	Withdrawal	Steering Committee	4/26/2017	-\$40,000	Funds for Sediment Supply Synthesis, approved the SC on 4/26/17.
2014	Deposit	Steering Committee	7/19/2017	\$25,375	Left-over funds from 3014.00 unencumbered at the 7/19/17 SC meeting.
2015	Deposit	Steering Committee	7/19/2017	\$26,487	Left-over funds from 3015.00 unencumbered at the 7/19/17 SC meeting.
2016	Deposit	Steering Committee	7/19/2017	\$33,207	Left-over funds from 3016.00 unencumbered at the 7/19/17 SC meeting.
2017	Withdrawal	Steering Committee	11/1/2017	-\$14,300	Analysis of tern egg samples for PBDEs, approved by SC on 11/1/17.
2018	Withdrawal	Steering Committee	11/1/2017	-\$70,000	Revenue to balance the 2018 budget. Approved by SC on 11/1/17.
2018	Deposit	Steering Committee	11/1/2017	\$66,500	Repayment of half the "borrowed" 2018 margins funds. Second half will be repaid in 2019. "Borrowing" was SC approved 11/1/16 as part of the 2017 budget approval.
2018	Withdrawal	Steering Committee	11/29/2017	-\$36,000	SC email decision to fund proposal for North Bay Fire Response Monitoring
2018	Withdrawal	Steering Committee	1/24/2018	-\$15,000	SC decision to add \$15,000 to the bivalve cruise budget for the boat

Budget Year	Deposit or Withdrawal	Authorization	Date of Authorization	Amount	Comment
					rental (accidentally left out of the original budget).
2014	Deposit	Steering Committee	4/25/2018	\$750	Released funds from the 2014 budget per 4/19/18 Budget Memo.
2015	Deposit	Steering Committee	4/25/2018	\$50,019	Released funds from the 2015 budget per 4/19/18 Budget Memo.
2016	Deposit	Steering Committee	4/25/2018	\$33,458	Released funds from the 2016 budget per 4/19/18 Budget Memo.
2017	Deposit	Steering Committee	4/25/2018	\$112,872	Released funds from the 2017 budget per 4/19/18 Budget Memo.
2018	Withdrawal	Steering Committee	4/25/2018	-\$80,000	SC decision to use \$80k to purchase acoustic release systems for bivalve cruise.
2018	Withdrawal	Steering Committee	7/25/2018	-\$5000	SC decision to add \$5k to the 2018 budget to cover overages and fee shortfalls per 7/25/18 Budget Memo. These funds were released from the 2017 budget by reducing the budget of the South Bay Margins Study by \$5k. See matching entry for the 2017 budget above.
2018	Withdrawal	Steering Committee	7/25/2018	\$5000	Released funds from the 2017 budget per 7/25/18 Budget Memo. These funds were released by reducing the budget of the South Bay Margins Study by \$5k. The funds will be transferred to the 2018 budget to cover overages/fee shortfalls there. See matching entry for the 2018 budget below.
2018	Withdrawal	Steering Committee	7/25/2018	\$30,000	7/25/18: SC approval to close and unencumber the Richmond Harbor PCB Study task (3018-021). The funds will be applied to a new PCB project in 2019.
2016	Withdrawal	Program Manager	7/14/2018	-\$166	Correction to amount of funds released to Undesignated funds (7/14/18). Late charges to a few tasks that were closed changed the balance of funds that could be unencumbered.
2017	Withdrawal	Program Manager	7/14/2018	-\$85	Correction to amount of funds released to Undesignated funds (7/14/18). Late charges to a few tasks that were closed changed the balance of funds that could be unencumbered.
TOTAL				\$885,483	Total UF Balance

Table 5a: Bay RMP Supplemental Environmental Project (SEP) Funds. Penalty funds received and expenses through the end of the reporting period. The RMP maintains records of each individual payment in a separate database.

Project Assignment	Amount Received	Amount Spent	Balance	Status
Task 006: Suisun Bay Selenium Monitoring Study	\$121,500	\$117,764	\$3,736	Open
Task 007: HAB Investigation in SFB	\$195,000	\$37,504	\$157,496	Open
Task 008: North Bay Selenium Synthesis	\$54,500	\$36,407	\$18,093	Open
Task 009 DMMO Data Synthesis for PCBs	\$45,150	\$14,539	\$30,611	Open
Task 010 Napa & Sonoma Stream Gages	\$115,000	\$63,482	\$51,518	Open
Task 011 PCB PMU Stormwater Study	\$37,000*	\$0		Open
Task 012 PCB PMU Surfperch Survey	\$59,752	\$0	\$59,500	Open
Task 013 LSB Sediment Flux Study Year 2	\$158,000	\$0	\$158,000	Open
Unassigned	\$18,000	\$0	\$18,000	Open
Grand Total	\$679,654	\$160,195	\$519,206	

<sup>\*</sup>A portion of the SEP funds for this task have not been received yet by SFEI. \$15,000 is expected from a settlement that will be executed by the end of October 2018. The total budget for the project is \$37,000 but only \$22,000 has been received. The remaining \$15,000 is highly likely. Therefore, the full budget for the project was entered here and in SFEI's accounting system to avoid confusion later on.

Table 5b: Bay RMP Supplemental Environmental Project Descriptions

Study Name	Budget	Description	Status
Task 006: Suisun Bay Selenium Monitoring Study	\$121,500	The goal of the study is to develop and pilot test a selenium monitoring program in Suisun Bay to evaluate potential trends in selenium levels due to changes in hydrology in the Delta or changes in selenium loads to Bay-Delta tributaries in the Central Valley. The project tasks include the following: 1) assemble existing data on selenium concentrations in Suisun Bay; 2) use the data to develop a quantitative statistical study design framework to monitor for selenium trends in Suisun Bay; 3) conduct monitoring to pilot test the study design framework and report the monitoring results.	Approved
Task 007: HAB Investigation in SFB	\$195,000	This project will conduct a series of investigations of HABs in the Bay. The types of investigations to be completed are listed below:  1. Expanded biota sampling for improved understanding of toxin sources, spatio-temporal variability, and food web exposure.  2. Continuous deployment of the Imaging Flow CytoBot (IFCB) in Central Bay: building moored capacity and establishing a coastal end-member signal.  3. Determine whether SFB hosts internal sources of Alexandrium in the form of cysts in sediments.  4. Determine if coastal Pseudonitzchia or Alexandrium isolates can grow in SFB, or face obstacles beyond low-light and strong-mixing.	Approved
Task 008: North Bay Selenium Synthesis	\$54,500	The goal of the study is to perform an information synthesis to support development of a selenium monitoring program for the North Bay. The synthesis would support an integrated and strategic approach to monitoring in support of the TMDL. Specific items to be covered include examination of the linkages between the three indicators (e.g., water column, sediment, and tissue), completing the development of the statistical framework for monitoring design and data evaluation, and consideration of analytical methods for long-term monitoring.	Approved
Tasks 010: DMMO Data Synthesis for PCBs	\$45,150	The Dredged Material Management Office (DMMO) maintains a database that compiles sediment chemistry testing data from all dredging projects in San Francisco Bay. This rich database has only recently been released to the public. This study would synthesize the available information from the DMMO database to evaluate PCB concentrations from dredging projects, to compare their concentrations ranges to other areas (e.g., open water and margin ambient sites), and to estimate the mass of PCB removed from the Bay by dredging. These data would provide valuable information to confirm the PCB TMDL assessment that dredging results in a net loss of PCBs from the Bay and to leverage data already collected to evaluate the current conceptual model of PCBs in the Bay.	Approved

Study Name	Budget	Description	Status
Task 010 Napa & Sonoma Stream Gages	\$115,000	The calculation and monitoring of sediment loads entering San Francisco Bay are important for a variety of reasons, such as to inform dredging and tidal wetland restoration projects and to assess aquatic ecology, among others. While the information on sediment loads from many tributary sources is up-to-date, for other areas, such as the North Bay watersheds, there is little or no recent data. The objective of the study is to address this data gap by monitoring sediment loads at two existing USGS gages in the North Bay watersheds: 11458000 NAPA R NR NAPA CA, and 11458500 SONOMA C A AGUA CALIENTE CA. These two existing USGS gages currently monitor water flow rates following standard USGS methods. The addition of sediment load monitoring at these two gages is particularly important now because it will also provide information on sediment loads following the recent and extensive North Bay fires in these watersheds. Both gages have burned areas upstream. For this reason, it is critical that the monitoring begin as soon as possible.	Approved
Task 011 PCB PMU Stormwater Study	\$37,000 in MMP funds (\$67,000 total)	This study will yield valuable information on PCB concentrations and particle ratios in stormwater in two Priority Margin Unit (PMU) watersheds. The study areas include the major subwatersheds draining into the Emeryville Crescent, and one subwatershed draining into San Leandro Bay. The subwatershed draining into San Leandro Bay is downstream of a recently remediated hotspot, the former General Electric (GE) transformer and electrical equipment facility, where PCB contamination was severe. The goals of the study are to better estimate current PCB loads into these PMUs (a critical component of the PMU mass budgets) and to support tracking of the effectiveness of the major remediation action on the GE property. Sampling will be completed over two years, as storms allow.	Approved
Task 012 PCB PMU Surfperch Survey	\$59,500	Conceptual site models for PCBs in priority margin units have been developed for the Emeryville Crescent and San Leandro Bay. The San Leandro Bay model was supported by an intensive field study. These conceptual site models identified shiner surfperch as a crucial indicator of impairment in these areas, due to their explicit inclusion as an indicator species in the TMDL, their importance as a sport fish species, their tendency to accumulate high concentrations, their site fidelity, and other factors. The conceptual site models recommend periodic monitoring of shiner surfperch to track trends in the PMUs, and as the ultimate indicator of progress in reduction of impairment. Shiner surfperch and other sport fish species will be monitored in 2019 as part of RMP Status and Trends (S&T) monitoring. A coordinated sampling of PCBs in shiner surfperch in four PMUs is proposed as an add-on to the 2019 S&T sport fish sampling. This coordination will yield significant savings in data management and reporting, because these results can be easily added to the S&T activities with negligible additional cost. In addition, a dataset for shiner surfperch will be obtained that is directly comparable across the four PMUs and the five locations that are sampled in S&T.	Approved

Study Name	Budget	Description	Status
Task 013 LSB Sediment Flux Study Year 2	\$158,000	For January through September 2019, the San Francisco Bay Regional Monitoring Program (RMP) will continue the observations of suspended-sediment flux obtained in 2018 and will study the effects of flocculation on suspended-sediment flux measurements at the Dumbarton Bridge. The study will provide a monitoring dataset to understand the amount of sediment that is transported into and out of Lower South Bay (the "sediment flux"). An interpretive technical report for RMP's 2018 – 2019 results will be submitted. This data is critically important for restoring marshes for the South Bay Salt Ponds Restoration Project and for understanding transport of sediment-associated contaminants. At two locations in the water column at Dumbarton Bridge, continuous, 15-minute observations of turbidity, water velocity, and depth will be collected. These datasets will be related to suspended-sediment concentration and channel discharge using periodic boat-based measurements; the product of these two quantities is suspended-sediment flux. This sediment flux monitoring will follow previously established United States Geological Survey (USGS) methods (Shellenbarger et al., 2013). To quantify the effect of flocculation on these sediment flux computations, additional field campaigns will be conducted to observe in situ floc size and particle size distributions through an entire tidal cycle during spring and neap tides of the dry (July – Sept) and wet (Oct – June) seasons.	Approved

**Table 6: Steering Committee RMP Budget Summary** as of 9/30/2018

	and Current Expenses						Balance minus	
Year		Budget	Expended	Balance	Previously Unencumbered	Unencumbered this Period	Unencumbered % (Remainder)	& Remainin
		\$	\$	\$	\$	\$		
SEP		1,343,500	827,743	515,757		0	515,757	38%
2018		3,790,427	2,437,555	1,352,872	0	0	1,352,872	36%
2017		3,797,500	3,442,058	355,442	56,787	0	355,442	9%
2016		2,765,321	2,715,817	49,504	176,122	23	49,481	2%
2015		3,508,452	3,475,005	33,447	218,197	9,365	24,082	1%
	Grand Total	15,205,200	12,898,179	2,307,021	451,106	9,388	2,297,633	15%
Cash, S	et-Asides, and Undesignated Funds as of rep		N. 4					
	<b>Item</b> Cash on Hand	3,801,324	Notes					
	< 2018 A/R & Remaining Interest (see below)	112,946						
	Total Assets	3,914,270						
	Total Current Liabilities (figures above)	(2,297,633)						
v	Monitoring Contingency	(50,000)						
Set Asides	Program Review	(88,179)						
S &	S&T Monitoring	(592,975)						
	Total Liabilities	(3,028,787)						
	Undesignated Funds	885,483	RMP SC has set a	policy to maint	ain a minimum	balance of \$200h	Κ of Undesignated Fu	nds
Year	Accounts Receivables & Remaining Interest:	Amount	Anticipated Collections by	Notes				
	interest.							
2018	Bank Interest Remaining	0	12/31/2018 <sup>20</sup>	)18 Budget = \$3 )18 budget acc	35k. This amoui ount.	nt of interest has	been received and ac	ded to the
	3018.29 St. Helena - Municipal	5,994		<b></b>	<b></b>			
	3018.50 Caltrans - Stormwater	87,771						
3018	3.61 City of Napa River Park Marina - Dredger	,	core fees					
	3018.64 City of Benicia Marina - Dredger	4,991	stub year fees					

1,777 stub year fees

5,265 core fees

1,159 core fees

3018.69 Marin Yacht Club - Dredger 3018.76 Port of Richmond - Dredger

3018.62 Benicia Port Terminal - Pier 95 Dredger

<sup>\*</sup> indicates 2016 Stub-Year invoices

### **Proposed Theme and Preliminary Outline for 2019 Pulse**

#### Theme: Pollutant Pathways to the Bay

#### Introduction

- Definitions: sources, pathways, loadings
- Overall illustration

### **Municipal Wastewater**

- Pathway 101
  - Basic description with illustration
- Important Regulations
  - Current
  - o Future
- Recent Findings
  - o Present loads and long-term trends
    - Flow
    - Nutrients
    - Emerging Contaminants
      - Pharmaceuticals
      - Pesticides
    - Copper long-term reductions in spite of population growth
    - Mercury
    - Selenium
    - PCBs
- Future Work and Challenges
  - Ethoxylated surfactants
  - o ROC

#### **Stormwater**

- Pathway 101
  - Basic description with illustration
- Important Regulations
  - Current
  - Future
- Recent Findings
  - Present loads and long-term trends
    - PCBs
      - STLS trend study
    - Mercury
    - Emerging Contaminants
    - Copper
    - Nutrients
    - Selenium
  - North Bay fire studies

- Water Board
- USGS
- RMP NTA
- Future Work and Challenges
  - Stormwater CEC study
  - PMU studies

#### **Industrial Wastewater**

- Pathway 101
  - Basic description with illustration
- Important Regulations
  - Current
  - Future
- Recent Findings
  - Present loads and long-term trends for pollutants of concern
    - Selenium
    - Others?
- Future Work and Challenges
  - O XX

### **Dredged Material Disposal**

- Pathway 101
  - o Basic description with illustration
- Important Regulations
  - Current
  - o Future
- Recent Findings
  - o DMMO PCB synthesis
  - TRV Study
- Future Challenges
  - $\circ$  XX

## **Central Valley**

- Pathway 101
  - Basic description with illustration
- Important Regulations
  - Current
  - o Future
- Recent Findings
  - o Selenium: Tetra Tech modeling
- Future Challenges
  - $\circ$  XX

## **Atmospheric Deposition**

- Pathway 101
  - o Basic description with illustration
- Important Regulations
  - Current
  - o Future
- Recent Findings
  - o Present loads and long-term trends for pollutants of concern
    - Mercury Joel Blum info
    - Dioxins updated estimate from Dioxin Synthesis
- Future Challenges
  - $\circ$  XX

# Bay RMP Action Items

Key to Status Colors:

Green indicates greater than 90 days until the deliverable is due.

Yellow indicates a deliverable is due within 90 days.

Red indicates a deliverable that is overdue.

Primary	Deliverable	Assigned To	Due Date	Status	Comments	Meeting Date
Technical Review Committee Action Items from 9/19/18	Finalize 06/14/18 TRC meeting summary and post to website	Nina Buzby	09/28/18	Complete		09/19/18
Technical Review Committee Action Items from 9/19/18	Use doodle poll to reschedule September 2019 TRC meeting	Nina Buzby	10/31/18	•	Doodle poll sent but awaiting responses.	09/19/18
Technical Review Committee Action Items from 9/19/18	Invite TRC to the Sport Fish Workgroup meeting	Jay Davis	10/01/18	Complete		09/19/18
Technical Review Committee Action Items from 9/19/18	Reach out to Physis for participation in Selenium IC study (confirm MDLs and particulate capabilities)	Don Yee	09/24/18	Complete		09/19/18
Technical Review Committee Action Items from 9/19/18	Look into feasibility of using Bureau of Reclamation Water Quality Cruise for Selenium IC study water sample collection	Nina Buzby	09/28/18	Complete		09/19/18
Technical Review Committee Action Items from 9/19/18	Inspect details in sediment PBM, short-term archives to determine whether they can be discarded	Philip Trowbridge	10/31/18	Complete		09/19/18
Technical Review Committee Action Items from 9/19/18	Share results of copper IC study with SCWRPP	Don Yee	12/14/18	•		09/19/18
Technical Review Committee Action Items from 9/19/18	Incorporate TRC suggestions to challenge flyer	Cristina Grosso	09/24/18	Complete		09/19/18
Technical Review Committee Action Items from 9/19/18	Send challenge webpage to TRC	Cristina Grosso	09/24/18	Complete		09/19/18
Technical Review Committee Action Items from 9/19/18	Announce challenge and disseminate amongst networks	Cristina Grosso	09/24/18	Complete		09/19/18
Technical Review Committee Action Items from 9/19/18	Score data challenge submissions prior to next TRC meeting	Cristina Grosso	12/07/18	•		09/19/18
Technical Review Committee Action Items from 9/19/18	Schedule time during March TRC meeting to discuss lessons learned from data challenge	Philip Trowbridge	03/01/19	Complete	Topic added to list of future agenda items.	09/19/18
Steering Committee Action Items from 7/25/18	Finalize the April SC meeting summary.	Ila Shimabuku	08/15/18	Complete		07/25/18
Steering Committee Action Items from 7/25/18	Clean up contact list for RMP invoices.	ninab@sfei.org	08/20/18	Complete		07/25/18
Steering Committee Action Items from 7/25/18	Confirm 2017 dredge volumes with DMMO and John Coleman.	Philip Trowbridge	08/20/18	Complete		07/25/18
Steering Committee Action Items from 7/25/18	Hold a future discussion on increasing the amount for the RMP Undesignated Funds Reserve from \$200,000 to \$400,000 so as to better reflect moneys that are truly "reserves" versus "undesignated funds."	Philip Trowbridge	10/31/18	Complete	On agenda	07/25/18
Steering Committee Action Items from 7/25/18	Add discussion points to the Multi-Year Planning Workshop: the future of the RMP's selenium and microplastic workgroups.	Philip Trowbridge	10/15/18	Complete		07/25/18

Primary	Deliverable	Assigned To	Due Date	Status	Comments	Meeting Date
Steering Committee Action Items from 7/25/18	Bring forward specific nutrient studies that should be added to the SEP list during a fall SC meeting.	- J	01/31/19	Complete	Topic delayed to January SC meeting. Topic put on list of future agenda items.	07/25/18
Steering Committee Action Items from 7/25/18	Send South Bay selenium model report and dioxin report to Peter Carroll.	Jay Davis	08/20/18	Complete		07/25/18
Steering Committee Action Items from 7/25/18	Work with Tom Mumley, Karin North, and Leah Walker to revise Annual Meeting agenda and share it with the Steering Committee by email for final comments.	Jay Davis	08/27/18	Complete		07/25/18
Steering Committee Action Items from 7/25/18	Decide on the theme of the 2019 Pulse of the Bay during the October Steering Committee meeting.	Philip Trowbridge	10/31/18	Complete	On agenda	07/25/18
Technical Review Committee Action Items from 6/14/18	Address Richard's comment and finalize the March 14, 2018, TRC meeting summary and post to the website.	Ila Shimabuku	07/02/18	Complete		06/14/18
Technical Review Committee Action Items from 6/14/18	Confirm the December 13 meeting date with absent TRC members and schedule meeting once confirmed.	Ila Shimabuku	07/09/18	Complete		06/14/18
Technical Review Committee Action Items from 6/14/18	Discuss TRC recommendations to improve the process for special studies funding with the SC in July.	Philip Trowbridge	07/24/18	Complete		06/14/18
Technical Review Committee Action Items from 6/14/18	Update the SEP List based on the TRC recommendations and present it to the Steering Committee in July.	Philip Trowbridge	07/25/18	Complete		06/14/18
Technical Review Committee Action Items from 6/14/18	Report on copper results produced from BAL re-analysis at the September TRC meeting. Decide which method(s) to use in future years for copper analysis and how long to have overlap between old and new methods.	Don Yee	09/30/18	Complete	BAL will provide data on reanalysis before TRC meeting, ongoing discussion on reasons for discrepancy/ analytical alternatives	06/14/18
Technical Review Committee Action Items from 6/14/18	When SCCWRP publishes their final report, contextualize their findings for the RMP in a memo.	Don Yee	12/31/18	•	Bowen Du of SCCWRP provided data prior to final resubmission by a few "failing" labs (Du currently out on family leave), but all supposedly have passed (final tables available after his return to office)	06/14/18
Technical Review Committee Action Items from 6/14/18	Prepare a proposal to analyze sediment archives from the margins for legacy pesticides.	Philip Trowbridge	12/31/18	•	Delayed to the December TRC meeting when continued margins monitoring will be discussed.	06/14/18
Technical Review Committee Action Items from 6/14/18	Get more information on the North Bay Fire talk from Kevin Lunde.	Naomi Feger	07/25/18	Complete		06/14/18
Steering Committee Action Items from 4/25/18	Finalize the January SC meeting summary.	Ila Shimabuku	05/01/18	Complete		04/25/18
Steering Committee Action Items from 4/25/18	Send calendar invites for SC meeting dates in 2019.	Ila Shimabuku	05/01/18	Complete		04/25/18
Steering Committee Action Items from 4/25/18	Prepare discussion materials (the cost associated with each workgroup, the cost to prepare proposals vs convene the WG, and recent outcomes from each WG) to inform a long-term planning discussion on the future of RMP workgroups at the 2018 MYP workshop.	Philip Trowbridge	10/01/18	Complete	On agenda	04/25/18
Steering Committee Action Items from 4/25/18	Add agenda item to June 14 TRC meeting: ask the TRC to recommend a study that could be funded immediately using \$82,000 of available SEP funds (either a new study that can start immediately or a study from the list of possible SEPs).	Philip Trowbridge	06/01/18	Complete	On agenda.	04/25/18
Steering Committee Action Items from 4/25/18	Prepare an agenda for the October MYP Workshop that the SC can review in July.	Philip Trowbridge	07/15/18	Complete	On agenda	04/25/18
Steering Committee Action Items from 4/25/18	Email a draft 2018 RMP Annual Meeting agenda (with talk titles, speaker names, and moderators) for SC review.	Jay Davis	05/14/18	Complete	Sent 6/4/18.	04/25/18
Technical Review Committee Action Items from 3/14/18	Finalize the December 14, 2017, TRC meeting summary and post to the website and public-meetings folder.	Ila Shimabuku	03/20/18	Complete		03/14/18

Primary	Deliverable	Assigned To	Due Date	Status	Comments	Meeting Date
Technical Review Committee Action Items from 3/14/18	Confirm the September 20 meeting date with Chris Sommers, Shannon Alford, and Jim Mazza. Schedule meeting once confirmed.	Ila Shimabuku	03/26/18	Complete	This date did not work. Staff are using a doodle poll to fix a new date.	03/14/18
Technical Review Committee Action Items from 3/14/18	Check on the status of 2018 bivalve sampling permits.	Paul Salop	04/01/18	Complete		03/14/18
Technical Review Committee Action Items from 3/14/18	Create a document or web page on the SFEI website which explains the differences in USGS, RMP, and WB segmentations; shows a map which delineates the differences in segmentation; and includes links to Phil's slides from today's TRC meeting as well as relevant historical materials such as the 1987 "Segmentation of the San Francisco Bay/Delta" report.	Ila Shimabuku	12/31/18	Complete	Report drafted and sent to the TRC on 6/4/18. Comments will be addressed by the end of the year.  Just kidding! Handed of to NMS as it's truly a nutrients issue.	03/14/18
Technical Review Committee Action Items from 3/14/18	Check whether BAL would consider lowering their minimum detection limit by a factor of two in anticipation of the 2019 selenium repeat study.	Don Yee	06/01/18	Complete		03/14/18
Technical Review Committee Action Items from 3/14/18	Determine whether DOC results from the 2017 Water Cruise can provide insight the direction of the bias between the RP and IP results for copper.	Don Yee	06/01/18	Complete	DOC correlation is unnecesary since they already pinned it on a Ti interference	03/14/18
Technical Review Committee Action Items from 3/14/18	Look into historical copper data from USGS, San Jose, and S.R. Hanson. Ask Tony Rattonetti at SFPUC analyze samples collected for the selenium IC study for dissolved copper. Develop visual comparisons for presentation to the TRC in June.	Don Yee	06/01/18	Complete		03/14/18
Technical Review Committee Action Items from 3/14/18	Report back to the TRC with a draft final project description including judging criteria.	Cristina Grosso	09/30/18	Complete	On agenda for September TRC meeting	03/14/18
Technical Review Committee Action Items from 3/14/18	Notify the Steering Committee of the data analysis challenge by email.	Philip Trowbridge	03/20/18	Complete		03/14/18
Technical Review Committee Action Items from 3/14/18	Replace the Guadalupe trends topic with a presentation on results from the Advanced Data Analysis project in the Annual Meeting draft agenda and update with other ideas.	Jay Davis	04/01/18	Complete		03/14/18
Technical Review Committee Action Items from 3/14/18	Discuss organizing a Bay-Delta session at SETAC with Bridgette DeShields.	Philip Trowbridge	04/01/18	Complete		03/14/18
Steering Committee Action Items from 1/24/18	Update Steering Committee roster, email lists, and future meeting invitations to include new members	Ila Shimabuku	02/15/18	Complete		01/24/18
Steering Committee Action Items from 1/24/18	Highlight the adjusted SC and TRC meeting start and end times when sending out the agenda packages.	Philip Trowbridge	03/07/18	Complete		01/24/18
Steering Committee Action Items from 1/24/18	Report back to the Steering Committee on how the acoustic release samplers were purchased.	Philip Trowbridge	04/25/18	Complete	On agenda	01/24/18
Steering Committee Action Items from 1/24/18	Update 2018 and 2015 RMP budgets to reflect SC approvals on 1/24/18.	Philip Trowbridge	01/31/18	Complete		01/24/18
Steering Committee Action Items from 1/24/18	Change footnote text on page six of the multi-year plan from "Triggers will be updated" to "Comparisons to triggers will be updated"	Ila Shimabuku	01/29/18	Complete		01/24/18
Steering Committee Action Items from 1/24/18	Send a link to the microplastics video to the SC when it is ready to be released.	Rebecca Sutton	02/15/18	Complete		01/24/18
Steering Committee Action Items from 1/24/18	Share finalized slides from Item 8 with Steering Committee.	Philip Trowbridge	01/29/18	Complete		01/24/18
Steering Committee Action Items from 1/24/18	Regarding sediment strategy: Look into collaborative efforts with Santa Clara Valley Water District, BAFPAA, Jim Fiedler, and the Resilient by Design project.	Philip Trowbridge	01/31/18	Complete	A study to evaluate data from flood control agencies was added to the lists of potential studies.	01/24/18
Steering Committee Action Items from 1/24/18	Proceed with booking October 11 with the David Brower Center and send out a save-the-date to SC and TRC committee members.	Ila Shimabuku	02/01/18	Complete		01/24/18
Technical Review Committee Action Items from 12/14/17	Finalize the September 14, 2017, TRC meeting summary and post to the website and public-meetings folder.	Ila Shimabuku	12/20/17	Complete		12/14/17

Primary	Deliverable	Assigned To	Due Date	Status	Comments	Meeting Date
Technical Review Committee Action Items from 12/14/17	Upload powerpoint of latest copper and cyanide concentrations from the 2017 Water Cruise to RMP web page after data and slides have been finalized.	Ila Shimabuku	09/30/18	Complete	Delayed until data were been QA'ed.	12/14/17
Technical Review Committee Action Items from 12/14/17	Add agenda item to March TRC meeting: Discuss the differences in the names and boundaries of the Bay segments used by the RMP, Water Board, and USGS.	Philip Trowbridge	12/31/18	Complete		12/14/17
Technical Review Committee Action Items from 12/14/17	Look into moving two bivalve sites outside of State Lands Commission territory.	Paul Salop	01/01/18	Complete		12/14/17
Technical Review Committee Action Items from 12/14/17	Present a proposal for the purchase of an acoustic-release system to the SC in January. The proposal is to include budgeting and permitting information.	Paul Salop	01/01/18	Complete	On agenda for 1/24/18 SC meeting. Verbal update will be given.	12/14/17
Technical Review Committee Action Items from 12/14/17	Add the North Bay fires event to the "Summary of RMP Program Changes" spreadsheet.	Ila Shimabuku	12/20/17	Complete		12/14/17
Technical Review Committee Action Items from 12/14/17	Consider a "What Made the Headlines" article in the upcoming RMP Update (and future reports) that includes significant water-quality-related events like substantial RMP findings, excessive rainfall, fires, Dungeness crab closures, shark die-offs, and others.	Jay Davis	03/01/18	Complete		12/14/17
Technical Review Committee Action Items from 12/14/17	Implement the TRC's suggestions regarding lab intercomparison studies.	Philip Trowbridge	01/01/18	Complete		12/14/17
Technical Review Committee Action Items from 12/14/17	Implement the TRC's suggestions regarding lab intercomparison studies.	Don Yee	01/01/18	Complete	Went to Bight '18 Chem planning meeting. Many of our priority tissue & sediment matrix analytes, will request contract lab participation, & solicit stakeholder (BASMAA/BACWA) internal & contract labs	12/14/17
Technical Review Committee Action Items from 12/14/17	Look into what methods the selenium IC labs used to calculate the minimum detection limit.	Don Yee	01/01/18	Complete	currently communicating w/ labs on their MDL derivation methods	12/14/17
Technical Review Committee Action Items from 12/14/17	Include explicit financial penalties for overdue datasets in future RMP laboratory contracts.	Philip Trowbridge	01/01/18	Complete	After discussion with QA staff, we decided that this provision would create more challenges than it would solve. Fixing data that were incorrect because the lab was rushing is worse than late data. The current practice of checking in with labs regularly is already working well.	12/14/17
Technical Review Committee Action Items from 12/14/17	Present any steps taken on Richard's data-analysis contest to the TRC.	Cristina Grosso	03/01/18	Complete	On agenda for 3/14/18 meeting	12/14/17
Technical Review Committee Action Items from 12/14/17	Implement the TRC's suggestions for informatics.	Cristina Grosso	12/31/18	Complete		12/14/17
Steering Committee Action Items from 11/01/17	Conduct succession planning for the chair and vice chair of the Steering Committee and Technical Review committee.	Tom Mumley	10/31/18	•		11/01/17
Steering Committee Action Items from 11/01/17	Update charter as presented to the SC on 11/1/17.	Philip Trowbridge	11/17/17	Complete	Revised charter available at: http://www.sfei.org/documents/c harter-regional-monitoring- program-water-quality-san- francisco-bay-0	11/01/17
Steering Committee Action Items from 11/01/17	Finalize July Steering Committee meeting summary and upload it to the RMP webpage.	Ila Shimabuku	11/07/17	Complete		11/01/17
Steering Committee Action Items from 11/01/17	Create calendar invites for the proposed 7/25/18 and 10/24/18 Steering Committee meetings.	Ila Shimabuku	11/07/17	Complete		11/01/17

Primary	Deliverable	Assigned To	Due Date	Status	Comments	Meeting Date
Steering Committee Action Items from 11/01/17	Plan for the addition of dry docks as contributors to the RMP and present to the SC. Planning will include deciding what category dry docks should fall into (if not their own), fees, and whether they will be required to have a designated representative for the Steering Committee and Technical Review Committee.	Philip Trowbridge	01/15/18	Complete	It turns out that Dry Docks are not able to join the RMP. Therefore, no action is required. Update on the agenda for the 1/24/18 meeting.	11/01/17
Steering Committee Action Items from 11/01/17	Develop a procedure for how to add stakeholders to the RMP.	Philip Trowbridge	01/15/18	Complete	Canceled because Dry Docks are not able to join the RMP. A discussion about whether procedures are needed in general is on the agenda for the 1/24/18 meeting.	11/01/17
Steering Committee Action Items from 11/01/17	Refine proposal by addressing feedback from today's discussion, conduct a review by the TRC, and return to the Steering Committee for further approval.	Rebecca Sutton	11/20/17	Complete	Revised proposal approved by SC on 11/29/17.	11/01/17
Steering Committee Action Items from 11/01/17	Send a doodle poll to the list of no-shows to collect information on why so many registered participants did not attend the meeting.	Ila Shimabuku	11/07/17	Complete	We don't have a list of those who did and did not attend so I cannot complete this task.	11/01/17

## Bay RMP Deliverables Scorecard Report

Key to Status Colors:

Green indicates greater than 90 days until the deliverable is due.

Yellow indicates a deliverable due within 90 days.

Red indicates a deliverable that is overdue.

Focus Area	Project	Primary	Deliverable	Assigned To	Due Date	Due Date Extended	Old Due Date	Status	Comments
Communications	Bay RMP (2018)	5. Communications	Q3 RMP eUpdate	Jay Davis	10/31/18	<b>=</b>	09/30/18	•	Will prepare after Annual Meeting, by October 2018.
Communications	Bay RMP (2018)	5. Communications	RMP Update for BACWA Board	Philip Trowbridge	10/31/18			•	
Communications	Bay RMP (2018)	5. Communications	RMP Update for BASMAA Board	Philip Trowbridge	10/31/18			•	
Communications	Bay RMP (2018)	5. Communications	RMP Update for LTMS Program Managers	Philip Trowbridge	10/31/18	F		•	
Communications	Bay RMP (2018)	5. Communications	RMP Update for BPC	Philip Trowbridge	10/31/18	3		•	
Communications	Bay RMP (2018)	5. Communications	RMP Update for WSPA BATS Meeting	Philip Trowbridge	10/31/18	P		•	
Communications	Bay RMP (2018)	5. Communications	RMP Update for RB2 staff	Philip Trowbridge	10/31/18	P		•	Include a brown bag presentation by RMP staff.
Communications	Bay RMP (2018)	5. Communications	Q4 Estuary News Article	Jay Davis	12/31/18			•	
Communications	Bay RMP (2018)	5. Communications	Q4 RMP eUpdate	Jay Davis	12/31/18			•	
Communications	Bay RMP (2018)	5. Communications	Presentation of RMP data at up to 6 conferences or local meetings (oral presentations and posters)	Philip Trowbridge	12/31/18	F		•	
Data Management	Bay RMP (2018)	3. QA and Data Services	Online Data Access CD3	Cristina Grosso	12/31/18			•	(1) Pending: Automate generation of TEQs; (2) Completed: Expand functionality of data download tool; (3) Completed: Implement display of toxicity summary data; (4) In-progress: Tool maintenance and performance upgrades; (5) In-progress: Add the SFB Basin Planning Units to CD3
Data Management	Bay RMP (2018)	3. QA and Data Services	Database Maintenance	Amy Franz	12/31/18	F		•	(1) Add 2002 and 2003 CTR data to CD3 (2) Add basic water quality data from YSI for RMP water cruises in 2010, 11, 12, 15 to CD3 (3) Check that all records in the legacy RMP database are also in the RDC database (4) Make sure all RMP data has associated Lat/Longs so data can be exchanged with WQX (5) Move RDC database to Data 2 (6) Update database to implement changes made by CEDEN for standard vocabulary codes, business rules and database structure (7) Update records and address issues as identified by internal staff (8) Perform scheduled database maintenance. (\$6,250)
Data Management	Bay RMP (2018)	3. QA and Data Services	Updates to SOPs and Templates	Amy Franz	12/31/18	F		•	Convert old java code for Pulse maps to R (1) Modify and design data reporting templates. (2) Update queries for bird and bivalve tissue data (3) Maintain data management standard operating procedures and work flow documentation (4) Continue discussion on how to manage sums (5) Continue to work with CEDEN to provide input of updating the CEDEN data checker with SWRCB staff.
Data Management	Bay RMP (2018)	3. QA and Data Services	QA Officer Report for 2018 S&T Activities	Don Yee	03/31/19	口口		•	Report will cover 2018 Bird Egg, 2018 Bivalve, and 2018 Sediment data.
Emerging Contaminants	Bay RMP (2018)	Pharmaceuticals in Wastewater: Data Analysis and Reporting	Technical Report	Diana Lin	10/31/18	<b>F</b>	09/30/18	•	Draft report due by summer '18; final due by 9/30/18 Draft report out for review, will finalize end of Oct.

Focus Area	Project	Primary	Deliverable	Assigned To	Due Date	Due Date Extended	Old Due Date	Status	Comments
Emerging Contaminants	Bay RMP (2018)	CUPs and Wastewater Contaminants in Margin Sediment and Water	Data upload to CEDEN	Amy Franz	11/01/18	F		•	In Progress.
Emerging Contaminants	Bay RMP (2016)	EC Non-targeted Analysis	Report on Non-Targeted Analysis of Water-Soluble CEC Compounds	Rebecca Sutton	11/30/18	<b>F</b>	06/30/17	•	Preliminary findings presented to ECWG on 3/30/17. Dr. Ferguson has requested an extension for his draft report to 5/31/18 to allow him to do additional analyses with newly purchased, faster and higher-resolution equipment. Dr. Ferguson is actively working on this report and has been slowed down due to the large number of new detects from the new equipment as well as urgent activities relating to the aftermath of Hurricane Florence.
Emerging Contaminants	Bay RMP (2016)	EC Non-targeted Analysis	Fact Sheet on Non-Targeted Analysis of Water-Soluble CEC Compounds	Rebecca Sutton	11/30/18	<b>E</b>	06/30/17	•	Fact sheet is to accompany the final report. Provide final fact sheet to EB Parks.
Emerging Contaminants	Bay RMP (2018)	North Bay Post-Fire Monitoring	Brief technical memorandum with results of non-targeted analysis	Meg Sedlak	11/30/18			•	Draft memo to TRC/SC in November 2018. Final memo in February 2019.
Emerging Contaminants	Bay RMP (2019)	EC in Urban Stormwater Year 1	Pilot study site selection	Rebecca Sutton	11/30/18	F		•	https://www.sfei.org/sites/default/files/events/ECWG %20-%2003%20- %20StormwaterCECs2019_TRC.pdf
Emerging Contaminants	Bay RMP (2017)	Imidacloprid in Ambient Bay Water	Fact sheet on imidacloprid in ambient Bay water	Diana Lin	12/31/18		06/30/18	•	Draft due on 9/30/18; final due on 12/31/18 - Review by ECWG. Due dates extended by 6 months because of delays at the laboratory. Results delivered in April 2018.
Emerging Contaminants	Bay RMP (2017)	Phosphate Flame Retardants in Bay Water	Report on phosphate flame retardants in ambient Bay water	Rebecca Sutton	12/31/18	P	08/31/18	•	Delayed because lab partner has not provided results on schedule. Review by ECWG
Emerging Contaminants	Bay RMP (2017)	Triclosan in Small Fish	Report on triclosan in small fish	Diana Lin	12/31/18		07/31/18	•	Report delayed by 6 months because lab partner has not provided data. AXYS is still finalizing the lab method. New schedule. Draft by 10/31/18; final due 12/31/18 – Review by ECWG
Emerging Contaminants	Bay RMP (2018)	CUPs and Wastewater Contaminants in Margin Sediment and Water	Technical Report	Matt Heberger	12/31/18		09/30/18	•	Draft report due originally due by 9/30/18. Deadline pushed back to 12/31/18 because data processing is going slower than expected.
Emerging Contaminants	Bay RMP (2018)	North Bay Post-Fire Monitoring	Manuscript on results of non- targeted analysis	Rebecca Sutton	01/31/19	P		•	Manuscript will be prepared by academic partners (SDSU, DTSC, Duke). Not a RMP deliverable.
Emerging Contaminants	Bay RMP (2017)	Bisphenol in Bay Water	Report on bisphenol compounds in ambient Bay water	Ila Shimabuku	03/31/19	3		•	Draft report by 12/31/18; final due 3/31/18 — Review by ECWG. Data were 8 months late (Due December 2017, received end of August, 2018)
Emerging Contaminants	Bay RMP (2019)	EC in Urban Stormwater Year 1	Pilot study sample collection	Rebecca Sutton	04/30/19	P		•	
Emerging Contaminants	Bay RMP (2018)	Non-targeted Analysis of Sediment and Water	Fact sheet and technical report	Rebecca Sutton	05/05/19	F		•	Draft report and fact sheet by spring '19 in time for ECWG meeting; Final report and fact sheet by summer '19
Emerging Contaminants	Bay RMP (2018)	Non-targeted Analysis of Sediment and Water	Manuscript	Rebecca Sutton	05/05/19	P		•	
Emerging Contaminants	Bay RMP (2019)	Ethoxylated Surfactants Study	Wastewater and water sample collection	Diana Lin	08/31/19	F		•	https://www.sfei.org/sites/default/files/events/ECWG %20-%2004%20- %20Ethoxylated%20Surfactants%20Proposal_2019 _TRC.pdf
Emerging Contaminants	Bay RMP (2019)	EC in Urban Stormwater Year 1	Sampling and analysis plan for Years 2-3	Rebecca Sutton	11/30/19	P		•	
Emerging Contaminants	Bay RMP (2019)	Ethoxylated Surfactants Study	QA of data and upload to CEDEN	Amy Franz	02/28/20	P		•	
Emerging Contaminants	Bay RMP (2019)	EC Strategy	Update RMP CEC Strategy Document	Rebecca Sutton	04/01/20	F		•	https://www.sfei.org/sites/default/files/events/ECWG %20-%2001%20-%20ECstrategyProposal2019.pdf
Emerging Contaminants	Bay RMP (2019)	Ethoxylated Surfactants Study	Preliminary results presentation at ECWG Meeting	Diana Lin	04/01/20	F		•	
Emerging Contaminants	Bay RMP (2019)	EC Strategy	Present updated RMP CEC Strategy at SC	Rebecca Sutton	05/31/20	F		•	
Emerging Contaminants	Bay RMP (2019)	Ethoxylated Surfactants Study	Manuscript and summary for managers	Diana Lin	08/01/20	F		•	Draft due 8/31/20. Final due 1/31/21.
Exposure and Effects	Bay RMP (2018)	Support for Sediment Bioaccumulation Evaluations	Technical Report	Diana Lin	11/30/18		04/15/18	•	Draft: April 2018; Final: June 2018 -> delayed to get comments from EEWG, Draft Report shared with DMMO. Just received some comments Oct. Preparing to share with EEWG later in Oct. and finalize early Nov.
Exposure and Effects	Bay RMP (2018)	Synthesis of Benthic Community Data in the Whole of San Francisco Bay using the M-AMBI Index	Technical memo covering the M-AMBI threshold adjustment process and the results of the validation exercise	Philip Trowbridge	12/15/18	F		•	

Focus Area	Project	Primary	Deliverable	Assigned To	Due Date	Due Date Extended	Old Due Date	Status	Comments
Exposure and Effects	RMP SEP	9. DMMO Data Synthesis for PCBs	Technical Report	Jay Davis	03/30/19	F		•	The results of the PCB data analysis from the DMMO data will be reported as a technical report. SEP deadline was revised from 9/30/18.
Governance	Bay RMP (2018)	2. Governance	October SC Meeting	Philip Trowbridge	10/24/18	7		•	
Governance	Bay RMP (2018)	2. Governance	December TRC Meeting	Philip Trowbridge	12/13/18	-		•	
Governance	Bay RMP (2018)	2. Governance	Honoraria Payments for Science Advisors	Philip Trowbridge	12/31/18	P		•	
Microplastics	Bay RMP (2018)	Microplastics in San Francisco Bivalves	Presentation to TRC/SC	Meg Sedlak	06/17/19	P		•	
Microplastics	Bay RMP (2017)	Microplastic Characterization Study (Moore Foundation)	Baseline Report - Year 2	Meg Sedlak	09/02/19	3		•	Due to the complexity of the analyses, we have received an extension. The final report is due 9/01/2019.
Microplastics	Bay RMP (2018)	Microplastics in San Francisco Bivalves	Technical Report	Meg Sedlak	09/02/19	P		•	Margin samples have been collected. Bay samples will be collected in October. Results will be included in the Moore Microplastic Project final report.
Microplastics	Bay RMP (2019)	Microplastic Strategy	Update RMP Microplastic Strategy (appendix to existing strategy)	Rebecca Sutton	09/30/19	F		•	https://www.sfei.org/sites/default/files/events/MPWG %20-%2001%20- %20Priority1StrategyProposal2019FINAL.pdf
Microplastics	Bay RMP (2019)	Microplastics in Sport Fish	Coordinate collection and archiving of sport fish samples for microplastic analysis	Meg Sedlak	10/31/19	13		•	Funding was not allocated for lab analysis. The samples will just be collected and archived. https://www.sfei.org/sites/default/files/events/MPWG%20-%2002%20-%20Priority/Microplastic%20in%20Sportfish%20Proposal05292018.pdf
Microplastics	Bay RMP (2019)	Microplastic Strategy	Present updated Microplastic Strategy to SC	Rebecca Sutton	01/31/20	P		•	
Nutrients	Bay RMP (2019)	Nutrients Special Studies				P			Nutrient special studies are tracked through the Nutrient Management Strategy.
Nutrients	RMP SEP	Hydrodynamic and Water Quality Model in SFB and LSB	A final hydrodynamic and nutrient calibration and validation report	Dave Senn	12/31/18			•	The primary goals for this study are to calibrate and validate numerical models used for (1) predicting how anthropogenic nutrients (nitrogen and phosphorous) enter and react within the Bay; (2) predicting how the Bay responds to these inputs, including phytoplankton blooms and low dissolved oxygen; and (3) exploring how various nutrient load reduction management decisions will affect habitat condition.
PCB Strategy	Bay RMP (2016)	PCB Margins Conceptual Model	San Leandro Bay Conceptual Model Report	Jay Davis	11/30/18	<b>F</b>	03/31/18	•	Draft was sent to PCBWG on 5/3/18. Last comments received on September 10. Final by November 2018.
PCB Strategy	Bay RMP (2018)	San Leandro Bay Fish Diet Analysis	Technical Report	Jay Davis	11/30/18	<b>-</b>	03/31/18	•	Andy Jahn subcontract. Draft report prepared. Comments received from PCBWG. Andy collected additional field data (pro bono) in summer of 2018. Draft by November 2018.
PCB Strategy	Bay RMP (2017)	PCB Margins Conceptual Model	Steinberger Slough Priority Margin Unit Conceptual Model Report	Jay Davis	12/31/18		08/31/17	•	Revised due dates due to workflow. Draft for WG/TRC/SC by December 2018. Final by March 2019.
PCB Strategy	Bay RMP (2019)	PCB Strategy	Updated PCB multi-year plan	Jay Davis	06/30/19	P		•	https://www.sfei.org/sites/default/files/events/PCBW G%20-%2001%20- %20Strategy%20Support%20and%20Technical%20 Coordination%202019.pdf
PCB Strategy	RMP SEP	12. PCB Shiner Surfperch PMU Survey	Sample collection and analysis (documented in S&T Sampling and Analysis Plan and Sampling Report)	Jay Davis	12/31/19	F		•	Coordinated sampling of PCBs in shiner surfperch ir four PMUs as an add-on to S&T sport fish sampling. https://www.sfei.org/sites/default/files/events/PCBW G%20-%2003%20-%20Shiner%20Suriperch%20PMU%20Survey%20Fevised.pdf
PCB Strategy	Bay RMP (2019)	Priority Margin Unit Stormwater PCB Monitoring	Stormwater sample collection at Emeryville Cresent sites in WY19 and WY20	Alicia Gilbreath	04/30/20	7		•	Analysis of samples will be covered by SEP funds (3300-011-A). Results will be reported in the WY20 STLS POC Reconnaissance Monitoring Report (due 12/31/20). https://www.sfei.org/sites/default/files/events/PCBW G%20-%2010
PCB Strategy	RMP SEP	11. PCB Stormwater Monitoring for PMUs	Analysis of stormwater samples from Emeryville Crescent sites in WY19 and WY20	Alicia Gilbreath	09/30/20	3		•	Samples will be collected with core funds (3018-021). Results will be reported in the WY20 STLS POC Recon Sampling Report. https://www.sfei.org/sites/default/files/events/PCBW G%20-%2002%20-%2002%20-%20Unit/%20Margin%20Unit%20Stormwater%20 PCB.pdf

Focus Area	Project	Primary	Deliverable	Assigned To	Due Date	Due Date Extended	Old Due Date	Status	Comments
	RMP SEP	11. PCB Stormwater Monitoring for PMUs	Collection and analysis of stormwater samples from San Leandro Bay sites in WY19 and WY20	Alicia Gilbreath	09/30/20	Exterided		•	Results will be reported in the WY20 STLS POC Recon Sampling Report.
PCB Strategy	RMP SEP	12. PCB Shiner Surfperch PMU Survey	Special Section in report on RMP S&T Sport Fish Sampling	Jay Davis	12/31/20	P		•	Draft by December 2020; Final by February 2021.
Program Management	Bay RMP (2018)	Program Management	Q4 RMP Financial Report	Philip Trowbridge	10/24/18			•	
Program Management	Bay RMP (2018)	Program Management	2019 Multi-Year Plan	Philip Trowbridge	01/31/19				Draft in October '19, Final in January '19
Program Management	Bay RMP (2018)	Program Management	2019 Detailed Workplan	Philip Trowbridge	01/31/19				Draft in October '19, Final in January '19
Sediment Strategy	Bay RMP (2018)	Sediment Strategy Support	Updated Dredged Material and Sediment Supply Multi-Year Plan	Philip Trowbridge	10/31/18			•	
Sediment Strategy	Bay RMP (2018)	Hosting and Support for DMMO Database	Provide technical assistance for hosting and maintaining the DMMO database	Cristina Grosso	12/15/18	P		•	Met with Project Team (USACE, USEPA, ExaData, RB2, SFEI) on 5/21/18 and 7/27/18 to review documentation on the DMMO database and website components, data flow, and roles and responsibilities. The group agreed on the priorities for SFEI, and the long-term goals and objectives of the DMMO database. The next Project Team meeting is scheduled for 9/27/18.
Sediment Strategy	Bay RMP (2018)	Hosting and Support for DMMO Database	Assist with data uploads	Cristina Grosso	12/15/18			•	USACE staff compiled an inventory of data reports and templates that are pending upload to the DMMO database. SFEI staff started to develop procedures for populating the templates from data tables stored in PDF Sampling Analysis Reports.
Sediment Strategy	Bay RMP (2018)	Hosting and Support for DMMO Database	Transfer DMMO website to SFEI server and maintain domain registration	Cristina Grosso	12/15/18	3		•	Added task in place of "Tier 1" query. SFEI staff have started the process of obtaining access to the DMMO website and migrating the website to SFEI's server.
Sediment Strategy	Bay RMP (2018)	Mallard Island SuspendedSediment Monitoring	Data collected, processed, and QA/QCed by the USGS. Data made available to the public once approved.	Philip Trowbridge	12/31/18			•	USGS subcontract
Sediment Strategy	Bay RMP (2017)	Sediment Monitoring Strategy	Sediment Monitoring Strategy (in collaboration with HWRB Project)	Philip Trowbridge	01/01/19	F		•	Draft due 1/1/19; Final due 6/30/19. Part of Healthy Watershed Resilient Baylands Project.
Sediment Strategy	Bay RMP (2019)	Sediment Conceptual Understanding and Monitoring Strategy	Framework Report	Scott Dusterhoff	02/28/19	F		•	This report is will outline the main concepts for the conceptual understanding and monitoring strategy for initial feedback.
Sediment Strategy	Bay RMP (2019)	Sediment Bulk Density Study	Draft Framework for local expert review	Jeremy Lowe	02/28/19	<b>-</b>		•	https://www.sfei.org/sites/default/files/events/SedimentWG%20-%2004%20-%20Lowe%20- %20Bulk%20density%20RMP%20Special%20Studies%20Proposal.pdf
Sediment Strategy	Bay RMP (2018)	Improved Lower South Bay suspended-sediment flux measurements at Dumbarton Bridge	Basic Data Report with sediment flux computations, detail of methods used, and data generated from the study, with no interpretation	Philip Trowbridge	03/31/19			•	USGS subcontract
Sediment Strategy	Bay RMP (2019)	Sediment Conceptual Understanding and Monitoring Strategy	Expert Review of Framework Report	Scott Dusterhoff	03/31/19	F		•	
Sediment Strategy	Bay RMP (2019)	Sediment Beneficial Reuse Workshop	Workshop	Jeremy Lowe	03/31/19			•	Prepare background materials, organize & facilitate workshop https://www.sfei.org/sites/default/files/events/SedimentWG%20-%2003%20-%20Trowbridge%20-%20Beneficial%20Reuse%201 hresholds.pdf
Sediment Strategy	Bay RMP (2019)	Sediment Conceptual Understanding and Monitoring Strategy	Technical Report	Scott Dusterhoff	05/31/19			•	Draft for Sediment WG by May 2019. Final by August 2019. This report will be published by SFEI as a Healthy Watersheds/Resilient Baylands-RMP joint-funded report.
Sediment Strategy	Bay RMP (2019)	Sediment Bathymetric Change Study (Year 1)	Update to the RMP Sediment Workgroup on preliminary results	Bruce Jaffe (USGS)	05/31/19	F		•	Contract with Bruce Jaffe USGS. Project was split between two years. This is the first year of funding. https://www.sfei.org/sites/default/files/events/SedimentWG%20-%2002%20-%20Jaffe%20-%20USGS%20Whole%20Bay%20Erosion%20
Sediment Strategy	Bay RMP (2019)	Sediment Beneficial Reuse Workshop	Workshop summary	Jeremy Lowe	05/31/19			•	Draft summary by May 2019 (for Sediment WG). Final by September 2019.
Sediment Strategy	Bay RMP (2019)	Sediment Bulk Density	Technical Report	Jeremy Lowe	05/31/19	3			Draft for Sediment WG by May 2019. Final by

Focus Area	Project	Primary	Deliverable	Assigned To	Due Date	Due Date Extended	Old Due Date	Status	Comments
Sediment Strategy	RMP SEP	10. Napa and Sonoma Streamgages	Data Products	Philip Trowbridge	06/30/19			•	For both gauges: suspended sediment and bedload sediment sample results as well as 15-minute records of turbidity, SSC, suspended load, and bedload (depending on rating curves developed) served on the USGS public website.
Sediment Strategy	RMP SEP	10. Napa and Sonoma Streamgages	Presentation	Philip Trowbridge	06/30/19	P		•	Presentation slides showing an analysis of sediment loads and comparisons with historical data.
Sediment Strategy	Bay RMP (2019)	Sediment Conceptual Understanding and Monitoring Strategy	Presentation of Final Conceptual Understanding and Strategy	Scott Dusterhoff	10/31/19	F		•	Forum will be the RMP Sediment WG or a Healthy Watersheds/Resilient Baylands Project meeting.
Sediment Strategy	Bay RMP (2019)	Sediment Bathymetric Change Study (Year 1)	USGS Data Release with new bathymetric grids for San Pablo Bay, Carquinez Strait, and Suisun Bay	Bruce Jaffe (USGS)	12/31/19			•	Contract with Bruce Jaffe USGS. Project was split between two years. This is the first year of funding. https://www.sfei.org/sites/default/files/events/SedimentWG%20-%2002%20-%20Jaffe%20-%20USGS%20Whole%20Bay%20Erosion%20and%20Accretion%20Updie%20524-18.pdf
Sediment Strategy	Bay RMP (2019)	Sediment Bathymetric Change Study (Year 1)	Presentation at the 2019 State of the Estuary Conference on interim results	Bruce Jaffe (USGS)	12/31/19	3		•	Contract with Bruce Jaffe USGS. Project was split between two years. This is the first year of funding. https://www.sfei.org/sites/default/files/events/SedimentWG%20-%2002%20-%20Jaffe%20-%20USGS%20Wfloe%2059%20Erosion%20and%20SCG-24-18.pdf
Selenium Strategy	Bay RMP (2015)	Selenium Special Studies / Selenium Sturgeon Tissue Plug Monitoring	2015 Sturgeon Muscle Plug Final Report	Jay Davis	12/31/18	<b>F</b>	05/31/16	•	Preliminary results presented at the Selenium Workgroup meeting in May 2016 and at the RMP Annual Meeting in Cotober 2016. To get the most value from this deliverable and to be efficient with reviewers' times, this report will be rolled into a larger report on the tissue plug results from 2015, 2016, and 2017. Draft shared with SeWG in May 2018. Final by 12/31/18.
Selenium Strategy	Bay RMP (2016)	Selenium 2016 Derby Monitoring	2016 Sturgeon Derby Final Report	Jay Davis	12/31/18	<b>-</b>	12/31/16	•	2016 Derby results will be combined with 2017 Derby results in one report. Combining data will make for a better analysis. Draft shared with SeWG in May 2018. Final by 12/31/18.
Selenium Strategy	Bay RMP (2017)	2017 Sturgeon Derby Monitoring	Technical Report on Selenium in White Sturgeon from the 2017 Sturgeon Derby	Jay Davis	12/31/18	<b>F</b>	12/31/17	•	Draft shared with SeWG in May 2018. Final by 9/30/18. Data from 2016 and 2017 will be combined into one report.
Selenium Strategy	RMP SEP	Suisun Bay Selenium     Monitoring Study	Financial Oversight	Jennifer Sun	12/31/18	F		•	Laboratory analysis by USGS and UCD.
Selenium Strategy	RMP SEP	6. Suisun Bay Selenium Monitoring Study	Field Studies Report (2015, 2016, 2017 Muscle Plug Data)	Jay Davis	12/31/18	3		•	MMP funds. Report will combine results for muscle plugs from 2015, 2016, and 2017. Funds from budget year 2015 will for the 2015 Plug Report will be also used for this report. Draft shared with SeWG in May 2018. Final by December 2018. SEP deadline is 12/31/18.
Selenium Strategy	RMP SEP	8. North Bay Selenium Synthesis	Monitoring Design Framework Report	Jay Davis	12/31/18			•	Examination of the linkages between three indicator (water, sediment, tissue), statistical framework for monitoring design and data evaluation, and consideration of analytical methods.
Selenium Strategy	Bay RMP (2019)	Selenium Strategy	Update Selenium Multi-Year Plan	Jay Davis	06/30/19	3		•	https://www.sfei.org/sites/default/files/events/SeWG %20-%2001%20- %20Strategy%20Support%20and%20Technical%20 Coordination%202019.pdf
Selenium Strategy	Bay RMP (2019)	Selenium in Muscle Plugs	Collect and analyze muscle plug samples	Nina Busby	03/31/20	<b>-</b>		•	Muscle plug samples will be collected during CDFW cruises between August and October 2019. Laboratory analysis will follow. Data management and reporting was not funded. https://www.sfei.org/sites/default/files/events/SeWG%20-%2003%20-%20Muscle%20Plug.pdf
Selenium Strategy	Bay RMP (2019)	Selenium in Clams and Water	Collect and analyze water and clam samples	Nina Busby	06/30/20	F		•	Clam and water samples will be collected at two locations in Suisun Bay. Samples will be collected in Jul-19, Aug-19, Sep-19, Dec-19, Jan-20, and Feb-20. Data management and reporting was not funded. https://www.sfei.org/sites/default/files/events/SeWG %2/U-%20U2%2/
Sources Pathways and Loadings	Bay RMP (2018)	Small Tributaries Loading POC Watershed Characterization Reconnaissance Monitoring	Advanced Data Analysis Interpretative Report	Jing Wu	11/01/18			•	Advanced analysis interpretive report due as a draft by July 2018 and final by November 2018. Preliminary results were presented to the SPLWG in May 2018. Expected internal deadlines: July 13 - Draft internal review July 20 - Draft to STLS review August 31 - Draft to STLS review September 30 - Final draft

Focus Area	Project	Primary	Deliverable	Assigned To	Due Date	Due Date Extended	Old Due Date	Status	Comments
Sources Pathways and Loadings	Bay RMP (2018)	STLS POC Stormwater- Regional Watershed Spreadsheet Model Support	Provide technical support for RWSM model users	Jing Wu	12/31/18	P		•	Written reviews of new versions of the RWSM produced by BASMAA. Provision of any new versions on the RMP website.
Sources Pathways and Loadings	Bay RMP (2018)	Small Tributaries Loading Program Management	STLS management	Jennifer Hunt	12/31/18	3		•	STLS Management (meeting agendas, meeting summaries, tracking and addressing action items)
Sources Pathways and Loadings	Bay RMP (2018)	Small Tributaries Loading POC Watershed Characterization Reconnaissance Monitoring	Technical report on the WY 2018 reconnaissance monitoring	Alicia Gilbreath	03/15/19	F		•	
Sources Pathways and Loadings	Bay RMP (2019)	STLS WY19 POC Recon Monitoring	B. Wet season samples collected and sent to labs for analysis	Alicia Gilbreath	04/30/19			•	
Sources Pathways and Loadings	Bay RMP (2019)	STLS Regional Model	Modeling Implementation Plan	Jing Wu	05/01/19	口		•	Draft for SPLWG review by May 2019. Final by July 2019. Task B "model development" was not funde https://www.sfei.org/sites/defaulfiles/events/SPLW G%20-%2003%20and%2005%20-%20Regional%20Model%20Development%20for% 0Trends%2UStrategy.pdf
Sources Pathways and Loadings	Bay RMP (2019)	STLS Advanced Data Analysis (Phase II)	Technical Report on Advanced Data Analysis	Lester McKee	05/31/19	F		•	A technical report that provides the technical justification for the methods recommended and outlines in a stepwise fashion how to apply the methods to other Bay Area data sets. Draft for SPLWG by May 2019. Final by November 2019. https://www.sfei.org/sites/default/files/events/SPLWG%20%20044%20-%20404%20-%2040Alaylxis.pdf
Sources Pathways and Loadings	Bay RMP (2019)	STLS WY19 POC Recon Monitoring	D.WY19 POC Report	Alicia Gilbreath	11/30/19			•	Draft by 11/30/19. Final by March 30, 2020.
Sport Fish	Bay RMP (2018)	2. Governance	Sport Fish WG Meeting	Jay Davis	10/31/18	<b>E</b>	05/31/18	•	Sport Fish WG meeting will be held in November.
Status and Trends	Bay RMP (2017)	Status and Trends     F. Margins Sediment Study	Final Report for South Bay Margins Sediment Study	Don Yee	12/01/18	3		•	Draft to TRC by 12/1/18 (to discuss at Dec TRC meeting); final by 3/31/19.
Status and Trends	Bay RMP (2017)	Status and Trends     PBDE Analysis for     Archived 2016 Bird Eggs	Analysis of 12 archived tern egg samples. Results reported in an EDD.	Ila Shimabuku	12/31/18	F		•	Archive samples will be run at the same time as the 2018 samples. The results will be QA'ed and uploaded along with the 2018 samples. AXYS gathering permits so Paul can ship.
Status and Trends	Bay RMP (2018)	6. Status and Trends J. Sample Archive	Maintain and enhance the Archive Data Sample tool and respond to archive sample requests	michaelw@sfei.org	12/31/18	召		•	(1) Standardize vocabulary for station names and other fields (2) Add field for Station Name and separate Statior Codes from Station Names (3) Identify and summarize missing data (4) Create an Access query that can be used to provide managers with information on the number of containers and the mass of material in those containers for different container types/uses. (5) Work backwards. First clean up the most recent 5 years of data. Then, extend back to the last 10 years. After 10 years, the archives are less and les useful. 40-50 hours available for Michael. Use 20 hours to take a first cut at the tasks and then have a checkineeting. 7/24/18. Chase down missing information in project EEPS, OBRMPEE, RMPFISH2007, RMPFISH2008 09EEPS.
Status and Trends	Bay RMP (2018)	6. Status and Trends F. 2018 Bird Egg Monitoring Data Mgmt	Format, QA, and Upload 2018 Bird Egg Data	Amy Franz	01/01/19			•	As part of the QA Memo, trend plots of bird egg dat will be generated.
Status and Trends	Bay RMP (2018)	6. Status and Trends D. Bivalve Cruise Data Management	Format, QA, and Upload 2018 Bivalve Cruise Data	Amy Franz	03/01/19			•	
Status and Trends	Bay RMP (2018)	Status and Trends     H. 2018 Sediment Cruise     Data Mgmt	Format, QA, and Upload 2018 Sediment Cruise Data	Amy Franz	03/01/19			•	