



Technical Review Committee

September 19, 2018
9:30 AM – 3:30 PM

REMOTE ACCESS

Audio by Phone: 1.415.594.5500, Access Code 943-326-397#

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

AGENDA

1.	Introductions and Review Agenda	9:30 Bridgette DeShields
2.	<p>Decision: Approve Meeting Summary from June 14, 2018 and confirm/set dates for future meetings.</p> <p>Scheduled meetings: TRC: 12/13/18 Annual Meeting: 10/11/18 SC: 10/24/18 (Multi-Year Planning Workshop)</p> <p>Proposed meetings: (2nd Thursdays) TRC: 3/14/19 TRC: 6/13/19 TRC: 9/12/19 TRC: 12/12/19</p> <p>Materials: Meeting Summary, see pages 1-9</p> <p>Desired outcome: Approve meeting summary, confirm existing TRC meeting dates, set the date for future meetings.</p>	9:35 Bridgette DeShields

<p>3.</p>	<p>Information: SC Meeting Summary from July 25, 2018</p> <p>Topics discussed at the April SC meeting included:</p> <ul style="list-style-type: none"> ● Approved special studies for 2019 ● Agenda for Annual Meeting ● Agenda for Multi-Year Planning Workshop <p>Materials: Meeting Summary, see pages 10-16</p> <p>Desired Outcome: Informed committee</p>	<p>9:40 Phil Trowbridge</p>
<p>4.</p>	<p>Decision: S&T Monitoring Design for 2019, Including Plans for Laboratory Intercalibration Studies</p> <p>The TRC approved the overall S&T Monitoring Design at its last meeting in June. For this item, we will review the budgets and some details about the 2019 S&T activities. In particular, staff will present plans for intercalibration studies for selenium in tissue and water and PCBs in tissue. Finally, staff will present a proposal to reduce the target analyte list for PAHs by removing the alkylated PAHs (or at least monitoring for these compounds less frequently).</p> <p>Materials: see pages 17-36</p> <ul style="list-style-type: none"> ● Updated RMP S&T Monitoring Design ● Slides and Tables <p>Desired outcomes:</p> <ul style="list-style-type: none"> ● Recommendation to the SC to proceed with planned S&T activities for 2019 ● Agreement on the designs for proposed IC studies ● Agreement on whether or when to monitor for alkylated PAHs 	<p>9:50 Phil Trowbridge Don Yee Jay Davis</p>
	<p>Short Break</p>	<p>11:00</p>

<p>5.</p>	<p>Decision: Recommendation for 2017 Water Cruise Results for Copper</p> <p>During the 2017 Water Cruise, copper was measured by the laboratory using both an old and new method. The results for the new method were significantly different from those from the old method. Subsequently, the lab re-ran the samples with a third method. RMP staff will present information that the TRC can use to decide which set of results should be entered into the database, which method should be used in 2019, and how long to have overlap between old and new methods.</p> <p>Materials: None. Slides will be presented at the meeting.</p> <p>Desired outcome: Recommendation on which lab method to use for Cu in water for the 2017 cruise and going forward.</p>	<p>11:15 Don Yee</p>
<p>6.</p>	<p>Decision: Judging Criteria and Process for Data Analysis Challenge</p> <p>The RMP will issue a solicitation for a “Data Analysis Challenge” this fall. Small cash prizes will be offered for the best analysis of data available through CD3. The objective of this challenge is to attract more users to the CD3 tool and to potentially learn something new from the data on CD3. The TRC will decide the winners at the December meeting. For this agenda item, we will review the process and criteria for judging the submittals.</p> <p>Materials: Data Analysis Challenge Project Description, see pages 37-38</p> <p>Desired outcome: Consensus on process and judging criteria for the RMP Data Analysis Challenge.</p>	<p>11:45 Cristina Grosso</p>
	<p>LUNCH (provided)</p>	<p>12:15</p>

7.	<p>Discussion: RMP Communications Products and Agenda for Annual Meeting</p> <p>RMP staff will provide an update on upcoming communications products including the RMP Update report, Estuary News, and the Annual Meeting.</p> <p>Materials: Annual Meeting Agenda, see page 39</p> <p>Desired outcome: Feedback on upcoming communications products</p>	1:00 Jay Davis
8.	<p>Information: Preview of Annual Meeting presentations</p> <p>Staff will present their slides on bisphenols, dioxins, and RMP highlights.</p> <p>Materials: None. Slides will be presented at the meeting.</p> <p>Desired outcome: Feedback on presentations</p>	1:30 Don Yee Ila Shimabuku Philip Trowbridge
9.	<p>Information: Status of Deliverables and Action Items</p> <p>Materials: See pages 40-51</p> <p>Desired outcome: Informed committee about the status of RMP deliverables and upcoming meetings</p>	3:00 Phil Trowbridge
10.	<p>Discussion: Plan agenda items for future meetings</p> <p>Desired outcome: Identify future agenda items.</p>	3:15 Jay Davis
11.	<p>Discussion: Plus/Delta</p>	3:25 Bridgette DeShields
12.	<p>Adjourn</p>	3:30

Recently Completed RMP Reports/Products

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.

<https://www.sfei.org/documents/estrogen-receptor-vitro-assay-linkage-studies>

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.; 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.
<https://www.sfei.org/documents/2018-rmp-bivalve-deployment-cruise-report>

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.; 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.
<https://www.sfei.org/documents/2018-rmp-bird-egg-monitoring-sampling-and-analysis-plan>

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>

DRAFT Pending TRC Approval



Bay RMP Technical Review Committee Meeting

June 14, 2018

San Francisco Estuary Institute

Meeting Summary

Attendees

TRC Member	Affiliation	Representing	Present
Nirmela Arsem	EBMUD	POTWs	Yes
Mary Lou Esparza	CCCSD	POTWs	Yes
Tom Hall	EOA, Inc.	POTWs	Remote
Heather Peterson	SFPUC	POTWs	Yes
Simret Yigzaw & Ryan Mayfield	City of San Jose	POTWs	Yes
Bridgett DeShields*	Integral Consulting	Refineries	Yes
Lisa Sabin & Reid Bogert	BASMAA	Stormwater	Yes
Shannon Alford	Port of SF	Dredgers	No
Ian Wren	San Francisco Baykeeper	NGOs	Yes
Richard Looker	SFB RWQCB	Water Board	Yes
Luisa Valiela	US EPA	US-EPA IX	Yes
Sheila Swett	USACE	USACE	Yes
Naomi Feger	SFB RWQCB	Water Board	Yes

*Chair

Guests and Staff

- Jay Davis - SFEI
- Phil Trowbridge - SFEI
- Ila Shimabuku - SFEI
- Don Yee - SFEI
- Rebecca Sutton - SFEI
- Diana Lin - SFEI
- Jing Wu - SFEI
- Scott Dusterhoff - SFEI

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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 March 14, 2018 and confirm/set dates for future meetings.

Richard Looker suggested adding the recently finalized date for the September 19 TRC meeting to the March TRC summary. No further changes were made to the March 14 meeting summary before approval. There were no conflicts with the September 19 TRC or the December 13 meeting dates. Phil acknowledged difficulties that had arisen from sending calendar invites between differing email platforms and asked TRC members to reference the agenda for official meeting times.

Decision:

- Luisa Valiela motioned to approve the March 14, 2018, TRC meeting summary. Mary Lou Esparza seconded the motion. The motion for approval was carried by all present members.

Action Items:

- Address Richard's comment and finalize the March 14, 2018, TRC meeting summary and post to the website. (Ila Shimabuku, 7/2/18)
- Confirm the December 13 meeting date with absent TRC members and schedule meeting once confirmed. (Ila Shimabuku, 7/9/18)

3. Information: SC Meeting Summary from April 25, 2018

Phil Trowbridge briefly summarized the April SC meeting and highlighted discussions that took place regarding the Restoration Authority and the RMP Annual Meeting agenda.

4. Discussion: Presentation of Special Studies Proposals Recommended by Workgroups

Phil Trowbridge noted the extensive effort put into RMP workgroups this year both by RMP staff and external attendees. He noted the new org chart for the RMP due to the recent addition of the Microplastic Workgroup and the Sediment Workgroup.

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He set the stage by stating that charge of the June TRC meeting was to consider special-study prioritizations put forth by each workgroup and to allocate RMP funding for special studies. He highlighted that the planning budget is about double the actual available funds and that more studies would have to be scaled back, spread across years, and cut than ever before.

5. Decision: Recommendation for Special Studies for 2018

Bridgette DeShields stated that the goal for this item was to complete the “Core RMP Funds” and “AMR Funds” columns in the 2019 special studies proposal table. See the completed table below, at the end of Item 5.

Discussion centered on the following points:

- The value of the Sources Pathways and Loading Workgroup’s (SPLWG) Pollutants of Concern (POC) monitoring was questioned. Water Board representatives and members of the Small Tributaries Loading Strategy team spoke to the ongoing value of POC data, how POC monitoring uses leveraged funds, and management actions that have been stalled as a result of existing data gaps that POC monitoring help to fill.
- The TRC discussed the importance of the STLS regional model to support the trends strategy, its ability to address key PCB management questions, and its nexus with other Workgroups (i.e., emerging contaminants & sediment) and possible future intersects with models in development by the Nutrient Management Strategy (NMS). The TRC agreed that the model was of high value and that current proposed timeline should be extended and be more flexible to allow for appropriate budget requests in future years.
- Scott Dusterhoff summarized the priorities put forth by the Sediment WG as well as the urgency of sediment special studies. The TRC discussed whether the workshop on screening and testing guidelines for sediment beneficial reuse could be delayed to future years but ultimately decided that it was important to get started on this work.
- Rebecca Sutton discussed the motivations behind the CECs in stormwater study. The TRC recommended stretching the timeline from two to three years, dividing the budget evenly across all three years, and focusing on sampling design and pilot monitoring in Year 1.
- The ECWG ethoxylated surfactants study was identified as a priority for dischargers and for the Department for Toxic Substances Control due to its

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nexus with wastewater. The TRC discussed options for scaling and phasing this study. Rebecca Sutton proposed that the study could be scaled down from a budget of \$123,000 to \$70,000 which would eliminate monitoring in margins sediment and data upload to CEDEN, and only allow for Water Cruise and Wastewater monitoring. However, no Core funds and only \$30,000 AMR funds remained to fund this study at the conclusion of the agenda item.

- For the Microplastics Workgroup, the TRC decided only to fund strategy support and collecting and archiving sport fish samples for future analysis of microplastics.
- When the value of PCB work was questioned, TRC participants noted the historical value of PCB data and its relevance to evaluating the effectiveness of stormwater management actions.
- For the nutrients proposals about ship-based monitoring and moored sensors, some members asked why these perennial projects are still considered special studies. If they will continue indefinitely, these tasks should be part of the S&T budget. If they are special studies, when will then end or be scaled back?

Due to the lengthy discussion in Item 5, Joel Blum’s late-arriving proposal for a follow-up study on mercury isotope data was not discussed. None of the stakeholders stepped forward to support the proposal.

The TRC decided to allocate the \$82,000 of available Supplemental Environmental Project (SEP) funds to PCB special studies, then made decisions about how the AMR funds should be spread across ECWG & Microplastics Workgroups studies, and finally, divided RMP core funds across the remaining studies. In general, there was enough funding for only half of the proposed special studies. All of the funding for the EEWG was cut. The TRC agreed that the requested budgets had exceeded practical amounts and that the SC should discuss ways to prevent the RMP from spending time developing excess proposals and should re-evaluate the need for each workgroup. The TRC also recommended that all the WG strategy support tasks be lumped together with subtasks to indicate the amount for each workgroup. That way, the TRC can more easily focus on prioritizing actual special studies against the remaining budget.

The following table summarizes recommended TRC budget allocations for each RMP Workgroup.

Workgroup	Planning Budget	Requested by WG	TRC Recommendations			Total Allocated	% of Requested Budget Fulfilled
			Core RMP Funds	AMR Funds	SEP MMP Funds		
ECWG	\$555,000	\$448,300	-	\$225,000	-	\$225,000	50%
SPLWG	\$555,000	\$375,000	\$275,000	-	-	\$275,000	73%

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EEWG	\$124,000	\$150,200	-	-	-	\$0	0%
Nutrients	\$500,000	\$540,852	\$250,000	-	-	\$250,000	46%
Microplastic	\$120,000	\$187,300	\$15,000	\$15,000	-	\$30,000	16%
Sediment	\$325,000	\$259,600	\$184,600	-	-	\$184,600	71%
PCB	\$190,000	\$110,000	\$28,000	-	\$82,000	\$110,000	100%
Selenium	\$246,000	\$171,000	\$107,000	-	-	\$107,000	63%

The attached table summarizes the TRC’s recommendations for funding for 2019 special studies to be considered for approval by the Steering Committee on July 25. Within workgroups, proposals are listed in order of highest to lowest priority as identified by individual workgroups. Studies that were identified by the TRC as the next highest priority should more funding become available have comments noting this in red text.

Action Items

- Discuss TRC recommendations to improve the process for special studies funding with the SC in July. (Phil Trowbridge, 7/24/18)

LUNCH

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

Phil Trowbridge presented the existing SEP list. The TRC agreed that Phil should remove the studies that had been identified as low priority, completed, or superseded by a new proposal with one exception. The exception was the STLS project to develop a statistical model for trends detection. Chris Sommers had requested that this project be retained. The TRC also agreed to add all the unfunded projects from the 2019 proposals will be added to the list.

Jay mentioned that the PCB Workgroup is recommending that the \$30k of 2018 RMP funds allocated to the Richmond Harbor PCB Conceptual Model Project be moved to a project to monitor stormwater loads of PCBs to San Leandro Bay. Jay will bring this recommendation to the Steering Committee in July. Therefore, the Richmond Harbor project should be retained on the SEP list with a higher cost.

Action Item

- Update the SEP List based on the TRC recommendations and present it to the Steering Committee in July. (Phil Trowbridge, 7/25/18)

7. Decision: Recommendation for 2017 Water Cruise Results for Copper and Selenium and Update on SCCWRP IC Study

Don Yee presented findings that the TRC had recommended he gather in order to further understand copper results from Brooks Applied Laboratories (BAL) from the 2017 Water Cruise. Don explained that BAL had determined that a titanium species interference with the newer method had caused the discrepancy. BAL had fixed the issue and planned to re-analyze the samples using the newer method (triple quad mass spec). The TRC agreed to wait until BAL obtains data from the re-run Water Cruise samples and to publish these data as the official copper results from the 2017 Water Cruise.

Don then provided an update on the Southern California Water Research Project (SCCWRP) lab intercalibration (IC) study on sediment and tissue. SCCWRP will have a final report that details the findings of the IC study but none of SCCWRP's findings showed any cause for concern regarding the RMP's current selection of labs.

Action Items:

- 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, 9/1/18)
- When SCCWRP publishes their final report, contextualize their findings for the RMP in a memo. (Don Yee, 9/1/18)

8. Decision: Confirm Status and Trends Monitoring Design

Phil Trowbridge began the discussion on the Status and Trends monitoring design by summarizing two new recommended changes: (1) add Fipronil to the list of analytes for sport fish and sediment matrices and (2) add legacy pesticides to the list of analytes for the sediment cruise.

There was no opposition to adding fipronil to the S&T design. However, TRC members were skeptical that ambient sediment was the correct matrix to monitor in support of management decisions related to legacy pesticides. The TRC decided to eliminate legacy pesticides from the list of analytes for ambient sediment monitoring, provisionally, pending confirmation from the Water Board. Subsequent to the meeting, the Water Board (Naomi Feger) agreed with dropping legacy pesticides from the open

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Bay sediment sampling but wanted to consider analyzing some archived sediment samples from the margins for these parameters to inform decisions about screening thresholds for beneficial reuse in the margin areas.

Action Items

- Prepare a proposal to analyze sediment archives from the margins for legacy pesticides. (Phil Trowbridge, by 9/1/18)

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

Jay Davis provided a brief update on RMP communications and notified the TRC that he planned to have a draft RMP Update for review by the end of June. Jay then began discussing the Annual Meeting agenda by highlighting the addition of Joel Blum who was slated to kick off the Annual Meeting with a talk on linking mercury pathways with concentrations in fish.

There was some discussion regarding the proposed talk about water quality impacts of the North Bay fires. The results may not be interesting enough. It would have to include RB2, RB1, and RMP results. The RMP non-targeted analysis results are not likely to be ready in time. Naomi agreed to talk to Kevin Lunde about the talk. The TRC agreed that Taylor Winchell's talk on suspended sediment could be a backup for the North Bay Fire talk.

Participants expressed support for spreading around moderator responsibilities rather than having the Water Board moderate all four sessions. They recommended that the Water Board moderate Session 1, David Senn moderate the nutrients session, and Karin North moderate the CECs session. For the nutrients session, the group was in favor of having Barbara Baginska (Suisun Marsh TMDL), Alexis Fischer (UCSC CytoBot work), and having Zhenlin Zhang or Taylor Winchell fill the last slot.

Action Items

- Get more information on the North Bay Fire talk from Kevin Lunde. (Naomi Feger, 7/25/18)

10. Information: Status of Deliverables and Action Items

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Phil Trowbridge highlighted the large number of technical reports that were currently out for review and solicited comments.

11. Discussion: Plan agenda items for future meetings

The TRC confirmed that previews of Annual Meeting talks, an update on the RMP Data Analysis Challenge, and a report back on copper data should be included in the September TRC meeting.

12. Discussion: Plus/Delta

The TRC thanked RMP staff for pluses and had no deltas.

Adjourn

Table 3: TRC Recommendations - 6/14/18

Workgroup	Proposal Name	Funding Request	Core RMP Funds	AMR Funds	Comments/Rank
ECWG	Emerging Contaminants Strategy	\$70,000		\$70,000	
ECWG	Non-targeted Analysis of Fish and Wildlife	\$25,000		\$25,000	
ECWG	Contaminants of Emerging Concern in Urban Stormwater	\$180,000		\$130,000	
ECWG	Ethoxylated Surfactants in Ambient Water, Margin Sediment, and Wastewater	\$123,000			It would cost \$70k for water/wastewater but no margins sediment or CEDEN upload. Only \$30k available.
ECWG	Sunscreens in Water and Fish	\$50,300			
SPLWG	Small Tributaries Program Management	\$40,000	\$40,000		
SPLWG	Small Tributaries Loading POC Watershed Characterization Reconnaissance Monitoring	\$175,000	\$125,000		Priority to increase funding if more funds are available.
SPLWG	STLS Regional model development to support trends strategy Part I - Planning	\$60,000	\$60,000		
SPLWG	Advanced Data Analysis, Phase II	\$50,000	\$50,000		
SPLWG	STLS Regional model development to support trends strategy Part II - Beta hydrology model	\$50,000			
EEWG	Support for Dredging Project Bioaccumulation Evaluations, Part 2	\$48,000			Priority for funding if more funds are available. Possible SEP. Or resolve with NMFS/FWS at no cost?
EEWG	Exposure and Effects Workgroup Strategy Coordination and Technical Support	\$5,000			
EEWG	Synthesis of Benthic Community Data in the Whole of San Francisco Bay using the M-AMBI Index Phase II	\$29,000			Defer to later
EEWG	Developing Bioscreening Thresholds for the Glucocorticoid Receptor Cell Assay	\$50,000			Defer to later
EEWG	Efficient extraction of endocrine disruptors from sediments from San Francisco Bay	\$18,200			Defer to later
Nutrients	High-Frequency Moored Sensor Network	\$360,810	\$250,000		Priority to increase funding if more funds are available. \$400k assumed in NMS budget
Nutrients	Ship-based Monitoring with USGS	\$180,042			
Microplastic	Microplastic Strategy	\$15,000	\$15,000		
Microplastic	Microplastic in San Francisco Bay Sport Fish	\$110,300		\$15,000	For collection and archiving only.
Microplastic	Microplastic in San Francisco Bay Sport Fish: Add-on Tissue Analysis	\$26,000			
Microplastic	Microplastic in San Francisco Bay Sport Fish: Add on Additional Sites	\$26,000			
Microplastic	Microplastic in San Francisco Bay Sport Fish: Archive samples for Y2	\$10,000			
Sediment	Bay Sediment Conceptual Understanding and Monitoring Strategy	\$77,600	\$77,600		
Sediment	Update of Erosion and Deposition in San Francisco Bay	\$77,000	\$77,000		
Sediment	Workshop on Sediment Screening and Testing Guidelines for Beneficial Reuse of Dredged	\$30,000	\$30,000		
Sediment	Sediment Bulk Density Study	\$30,000			Priority for funding if more funds are available.
Sediment	Golden Gate Sediment Flux Modeling Study	\$45,000			
PCBs	Priority Margin Unit Stormwater PCB Monitoring	\$40,000	\$18,000		fund with Balance from SEP MMP \$
PCBs	PCB Strategy Coordination and Technical Support	\$10,000	\$10,000		
PCBs	Shiner Surfperch Priority Margin Unit Survey	\$60,000	\$0		Fund with SEP MMP (\$82k)
Selenium	Selenium Strategy Coordination & Technical Support	\$10,000	\$10,000		
Selenium	North Bay Clam and Water Part I - Monitoring	\$75,000	\$75,000		
Selenium	Sturgeon Muscle Plug Part I - Monitoring	\$22,000	\$22,000		
Selenium	North Bay Clam and Water Part II - Data Management & Reporting	\$40,000			
Selenium	Sturgeon Muscle Plug Part II - Data Management & Reporting	\$24,000			
Total		\$2,242,252	\$859,600	\$240,000	

Available Funding

\$861,500

\$270,000

Fund Unallocated

\$1,900

\$30,000



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

* 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

RMP 2019 Special Study Budgets Approved by Steering Committee on July 25, 2018

Workgroup	Proposal Name	Funding Request	SC Approved Budget		Comments/Rank
			Core RMP Funds	AMR Funds	
ECWG	Emerging Contaminants Strategy	\$70,000	\$70,000		Was funded with AMR \$ by the TRC but SC assigned this task to core funds.
ECWG	Contaminants of Emerging Concern in Urban Stormwater	\$180,000		\$132,000	\$130k is for Year 1 of 3. Was \$130k. Added \$2,000 surplus in AMR funds.
ECWG	Ethoxylated Surfactants in Ambient Water, Margin Sediment, and Wastewater	\$123,000		\$123,000	
ECWG	Sunscreens in Water and Fish	\$50,300			
SPLWG	Small Tributaries Program Management	\$40,000	\$40,000		
SPLWG	Small Tributaries Loading POC Watershed Characterization Reconnaissance Monitoring	\$175,000	\$125,000		Priority to increase funding if more funds are available.
SPLWG	STLS Regional model development to support trends strategy Part I - Planning	\$60,000	\$60,000		1 of several years
SPLWG	Advanced Data Analysis, Phase II	\$50,000	\$50,000		
Nutrients	High-Frequency Moored Sensor Network	\$360,810	\$250,000		Priority to increase funding if more funds are available. \$400k assumed in NMS budget
Nutrients	Ship-based Monitoring with USGS	\$180,042			
Microplastic	Microplastic Strategy	\$15,000	\$15,000		
Microplastic	Microplastic in San Francisco Bay Sport Fish	\$110,300		\$15,000	For collection and archiving only.
Sediment	Bay Sediment Conceptual Understanding and Monitoring Strategy	\$77,600	\$77,600		
Sediment	Update of Erosion and Deposition in San Francisco Bay	\$77,000	\$77,000		\$77,000 will be needed in 2020 as well.
Sediment	Workshop on Sediment Screening and Testing Guidelines for Beneficial Reuse of Dredged Sediments	\$30,000	\$30,000		
Sediment	Sediment Bulk Density Study	\$30,000	\$30,000		Project funding added.
Sediment	Golden Gate Sediment Flux Modeling Study	\$45,000			
PCBs	Priority Margin Unit Stormwater PCB Monitoring	\$40,000	\$0		Fund with \$15k SEP & SEP-MMP (\$22k) & allocate \$30k from UF from the Richmond Hbr Project
PCBs	PCB Strategy Coordination and Technical Support	\$10,000	\$10,000		
PCBs	Shiner Surfperch Priority Margin Unit Survey	\$60,000	\$0		Fund with SEP MMP (\$60k)
Selenium	Selenium Strategy Coordination & Technical Support	\$10,000	\$10,000		
Selenium	North Bay Clam and Water Part I - Monitoring	\$75,000	\$75,000		Year 1 of 2 or 3 years
Selenium	Sturgeon Muscle Plug Part I - Monitoring	\$22,000	\$22,000		Year 1 of 2 or 3 years
Total		\$2,242,252	\$941,600	\$270,000	

Available Funding

\$861,500

\$270,000

Regional Monitoring Program for Water Quality in San Francisco Bay

Monitoring Design for the Status and Trends Monitoring Program (2014-2027)

Program	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
USGS Moored Sensor Network for Suspended Sediment (5 targeted sites) ^a														
Parameters: SSC, Water temperature, Salinity	X	X	X	X	X	X	X	X	X	X	X	X	X	X
USGS Monthly Cruises for Nutrients and Phytoplankton in Deep Channel (38 targeted sites)														
Parameters: CTD profiles, light attenuation, SSC, DO, Chl-a, Phytoplankton speciation, Nutrients (NO ₂ , NO ₃ , NH ₄ , PO ₄ , Si) ^b	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Every 2 Years: Toxic Contaminants in Water (5 targeted sites and 17 random sites)														
MeHg, Cu, Se (dissolved & particulate fractions in 2017 and onwards, dissolved & total fractions measured in 2015)		X		X		X		X		X		X		X
CN, Hardness, SSC, DOC, POC		X		X		X		X		X		X		X
Aquatic Toxicity (9 stations) ^c		X		X		X		X		X		X		X
Chl-a and Nutrients (NH ₄ , NO ₃ , NO ₂ , TN, PO ₄ , TP, Si) (at GG site only).				X		✘	-	✘	-	✘	-	✘	-	✘
PCBs, PAHs, Pesticides								X						
CTR parameters (10 samples at 3 targeted stations) ^d		X										X		
Every 2 years: Toxic Contaminants in Bivalve Tissue (7 targeted sites) ^e														
Se, PAHs	X		X		X		X		X		X		X	
PBDEs	X		X											
PCBs	X								X					

Program	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Every 3 Years: Toxic Contaminants in Bird Egg Tissue														
Cormorant Eggs: Hg, Se, PCBs, PBDEs, PFCs (3 targeted sites) ^f			X		X			X			X			X
Tern Eggs: Hg, Se, PBDEs (variable fixed sites) ^g			X		X			X			X			X
Every 2 Years: Toxic Contaminants in Bay Margin Sediments (~40 random sites)														
Ag, Al, As, Cd, Cu, Fe, Hg, MeHg, Mn, Ni, Pb, Se, Zn, PCBs, TOC, N, % Solids, Grain Size		X		X			X		?		?		?	
Every 4 Years: Toxic Contaminants in Sediment (7 targeted sites and 20 random sites) ^h														
Ag, Al, As, Cd, Cu, Fe, Hg, MeHg, Mn, Ni, Pb, Se, Zn, PAHs, PCBs, TOC, N, % Solids, Grain Size	X				X				X				X	
PBDEs	X				X				X					
Fipronil	X				X				X				X	
Legacy Pesticides	X								?				?	
Sediment Toxicity ⁱ									?				?	
Benthic Macroinvertebrates ^j									?				?	
Every 5 Years: Toxic Contaminants in Sport Fish Tissue (7 targeted sites)														
Hg, Se, PCBs, PBDEs, PFCs, Dioxins	X					X					X			
Fipronil						X					?			

Notes:

"X" = Planned sampling event. "?" = Event that is planned but must be approved by the RMP Steering Committee before implementation. Additional parameters can be added to sampling events to support RMP Special Studies.

- a. The RMP Status and Trend Program provides direct support to the U.S. Geological Survey (PI: Dave Schoellhamer) for 5 SSC stations. However, this contribution leverages SSC data at 2 more stations and salinity at 8 stations funded by other partners. In addition, since 2012, the RMP has used Special Studies funds to add DO sensors at 6 stations and nutrient-related sensors to 3 stations.
- b. Monthly cruises are completed by the U.S. Geological Survey (PI: Jim Cloern). Phytoplankton speciation and nutrient sampling only occurs at 14 of stations.
- c. Aquatic Toxicity is measured following EPA Method 1007.0 (*Americamysis bahia*).
- d. CTR sampling occurs at the Sacramento River, Yerba Buena Island, and Dumbarton Bridge sites.
- e. Mussels (*Mytilus californianus*) are collected from Bodega Head State Marine Reserve, an uncontaminated “background” site of known chemistry, and are transplanted to 7 targeted locations in the Bay. After ~100 days, mussels from the transplanted sites and a sample from Bodega Head are collected for analysis. Three of the 7 transplant sites serve as back-ups in case something goes wrong with the transplants at the 4 primary sites. At the same time, resident clams (*Corbicula fluminea*) are collected from 2 sites in the Sacramento River and San Joaquin River.
- f. Double-crested Cormorants (*Phalacrocorax auritus*). Cormorant eggs are collected at three sites: Don Edwards National Wildlife Refuge, the Richmond-San Rafael Bridge, and Wheeler Island.
- g. Forster’s Tern (*Sterna forsteri*). Tern eggs are typically collected from multiple sites in the Don Edwards National Wildlife Refuge and the Hayward Shoreline Regional Park.
- h. Sediment samples are collected in the dry season (summer).
- i. Sediment toxicity is measured using the following methods: EPA 600/R-94-025 (*Eohaustorius estuaries*), EPA 821/R-02-012M (*Ceriodaphnia dubia*), EPA 600/R-99-064 (*Hyalella azteca*), and EPA 600/R-95-136M (*Mytilus galloprovincialis*)
- j. Benthic macroinvertebrates are measured during dry-season sediment sampling events (2014, 2022). Sediment samples are sieved through nested 1.0 and 0.5 mm sieves. Organisms are sorted into major taxonomic categories and taxonomy and abundance are determined to the lowest practical taxonomic level.

Acronyms:

SSC: Suspended Sediment Concentration
 Chl-a: Chlorophyll-a
 CTD: Conductivity, Temperature, and Depth
 CTR: California Toxics Rule, see <http://water.epa.gov/lawsregs/rulesregs/ctr/>
 DO: Dissolved Oxygen
 DOC: Dissolved Organic Carbon
 MeHg: Methylmercury
 NH₄: Ammonia (dissolved)
 NO₂: Nitrite (dissolved)
 NO₃: Nitrate (dissolved)
 PAHs: Polynuclear Aromatic Hydrocarbons
 PCBs: Polychlorinated Biphenyls
 PBDEs: Polybrominated Diphenyl Ethers
 “Pesticides”: The suite of legacy pesticides that has been routinely measured by the RMP: Chlordanes (Chlordane, cis-; Chlordane, trans-;

Heptachlor; Heptachlor Epoxide; Nonachlor, cis-; Nonachlor, trans-; Oxychlordane); Cyclopentadienes (Aldrin; Dieldrin; Endrin); DDTs (DDD(o,p’); DDD(p,p’); DDE(o,p’); DDE(p,p’); DDT(o,p’); DDT(p,p’)); HCHs (HCH, alpha-; HCH, beta-; HCH, delta-; HCH, gamma-); Organochlorines (Hexachlorobenzene; Mirex).
 PFCs: Perfluorinated Compounds
 PO₄: Phosphate (dissolved)
 POC: Particulate Organic Carbon
 Si: Silica (dissolved)
 TN: Total Nitrogen
 TOC: Total Organic Carbon
 TP: Total Phosphorus



RMP
REGIONAL MONITORING
PROGRAM FOR WATER QUALITY
IN SAN FRANCISCO BAY

sfei.org/rmp



2019 S&T Activities

September 19, 2018



2019 S&T Activities

- USGS Moored Sensor Network for Suspended Sediment
- USGS Monthly Cruises for Nutrients and Phytoplankton
- Toxic Contaminants in Water (done every 2 years)
- Toxic Contaminants in Sport Fish (done every 5 years)
- Intercalibration Studies
- Archives



Target Analytes

Water Cruise

- Me, Hg (diss. and part.)
- Cu (diss. and part.)
- Se (diss. and part.)
- Cyanide (weak acid dissociable)
- Aquatic toxicity (9 stations)
- Ancillary parameters
- Proposal: Drop nutrients

Sport Fish Sampling

- Hg
- PCBs (might be 209)
- Se
- PBDEs
- PFASs
- Dioxins and furans
- Fipronil (“lite”)



Target Sport Fish Species and “Add-on” Studies

- Species (Sport Fish WG will confirm)

- Striped Bass (*Morone saxatilis*)
- Shiner Surfperch (*Cymatogaster aggregata*)
- California Halibut (*Paralichthys californicus*)
- Jacksmelt (*Atherinopsis californiensis*)
- White Croaker (*Genyonemus lineatus*)
- White Sturgeon (*Acipenser transmontanus*)
- Barred Surfperch (*Acipenser argenteus*)
- Black Perch (*Embiotoca jacksoni*)
- Northern Anchovy (*Engraulis mordax*)
- Walleye Surfperch (*Hyperprosopon argenteum*)
- Staghorn Sculpin (*Leptocottus armatus*)
- White Surfperch (*Phanerodon furcatus*)
- Pile Surfperch (*Rhacochilus vacca*)
- Pacific Sardine (*Sardinops sagax*)
- Largemouth Bass (*Micropterus salmoides*)
- Common Carp (*Cyprinus carpio*)

- Add Ons

- Archives for Microplastics
- PCBs in Shiner Surfperch in Margin Areas



2019 Water Cruise Budget

Task	Expense Type	Budget	Notes
1. Planning	Labor	\$10,000	
2. Sample Collection	Vessel Cost	\$30,000	USGS R/V Turning Tide
	Subcontract/Direct Costs	\$70,000 AMS \$4,000 expenses	
	Labor	\$35,000	
3. Sample Analysis	Subcontract	\$48,000	Based on updated lab quotes
4. Data Management	Labor	\$24,000	
		\$221,000	This is \$7k under MYP

2019 Sport Fish Monitoring Budget

Task	Expense Type	Budget	Notes
1. Planning	Labor	\$20,000	Increased because of many “add ons”
2. Sample Collection	Subcontract/Direct costs	\$135,000 labs \$5,000 odc	Estimated based on inflation
3. Sample Analysis	Subcontract	\$150,000	Estimated based on inflation
4. Data Management	Labor	\$45,000	
5. Reporting	Labor	\$50,000	Increased from MYP because of many “add-ons”
		\$405,000	This is \$24k above MYP

Intercalibration Studies

Proposed Studies

- Selenium in tissue and water
- PCBs in sport fish tissue

Budget

- In the MYP, the budget for IC studies is \$69k in 2019
- Actual costs are expected to be \$47k



Selenium IC Study

		Tissue		Water
		Clam	Sturgeon	
Collection plan (see above)		USGS Archives	RMP Archives	Future cruise (prior to summer 2019) \$5,000
# of Samples		3-6 (per lab)	6 sites, 2 pseudo plugs per site (per lab)	5-6 sites + 1 duplicate (per lab) [range of sites in SB, SPB,CB]
Compositing Lab		BAL \$50/sample	BAL \$50/sample	N/A
Labs	BAL	\$100/sample	\$100/sample	\$110/sample - dissolved \$155/sample - particulate
	CCSF	\$50/sample (estimate)	\$50/sample (additional \$25/sample if initial results below MDL)	\$135/sample
	USGS	<i>Compare old data</i>	<i>Compare old data</i>	<i>Compare old data</i>
	ODU	N/A	N/A	\$6,185 total
		\$1,200	\$2,400	\$15,000
Direct Costs				\$2,000
Data Management				\$5,000
Reporting				\$6,000
Total				\$31,600

Sport Fish IC Study

- Media: Archives of shiner surfperch tissue
- Design: AXYS will analyze 6 archives that were previously analyzed by WPCL to check for shifts in baseline for PCBs

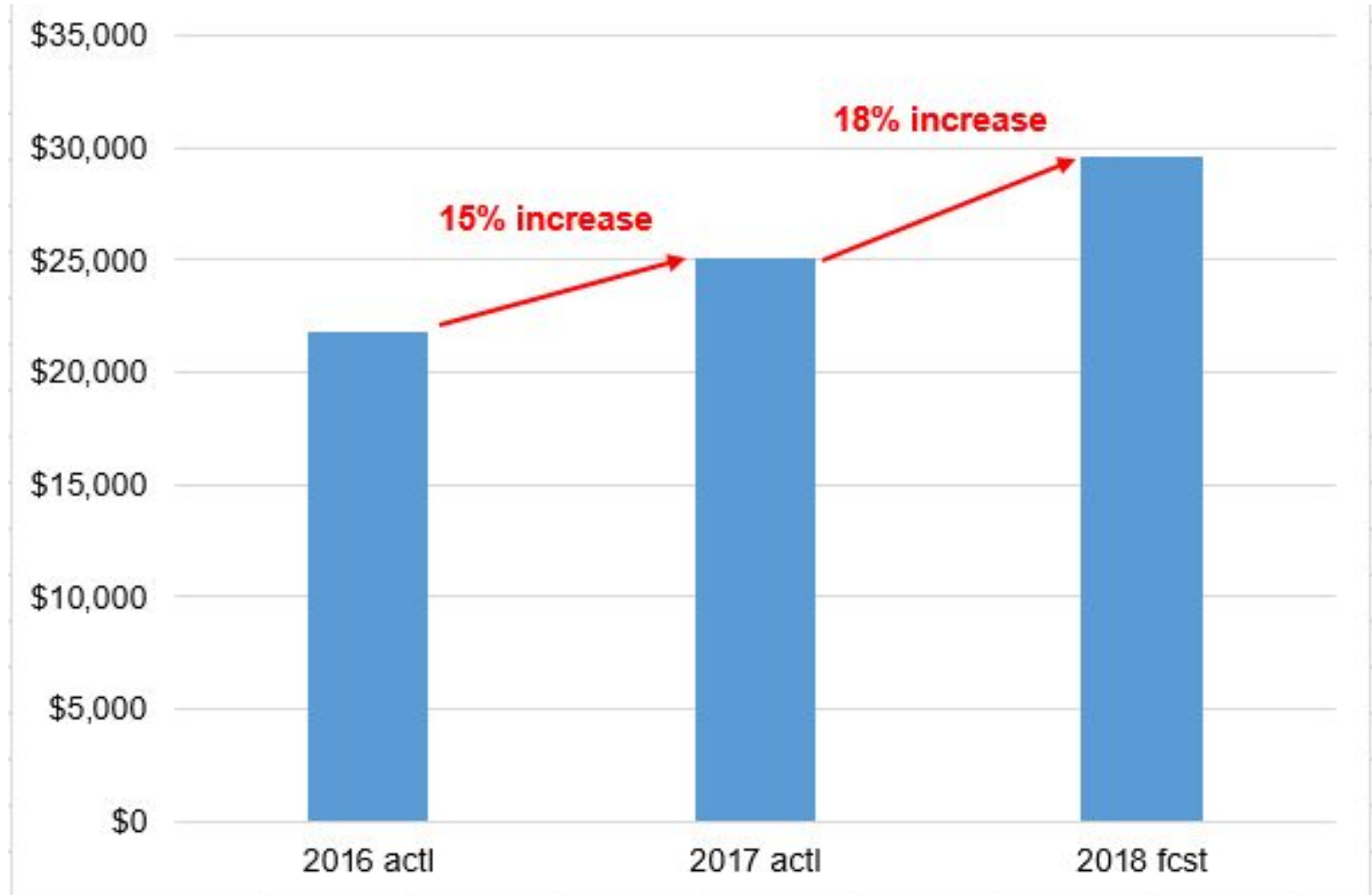
Item	Budget	Notes
Laboratory Analysis	\$9,000	Assumes \$1k/sample plus 3 paid QA
Shipping	\$1,000	
Planning & Analysis	\$5,000	
Total	\$15,000	

Archive Costs

Item	Proposed Budget	Notes
Short-Term Archives (Oakland)	\$35,000	Assumes 15% increase from 2018
Long-Term Archives (NIST)	\$20,000	Covers 2019 and 2020
Contractor Support	\$10,000	AMS
SFEI Labor	\$10,000	
Total	\$75,000	



Short-Term Archive Are Increasing By 15%/yr!



Proposed S&T Budgets

Program	2019 Budget	MYP Estimate
USGS SSC Monitoring	\$250k	\$250k
USGS Nutrient/Phyto Monitoring	\$242k	\$242k
Toxic Contaminants in Water	\$221k	\$228k
Toxic Contaminants in Sport Fish	\$405k	\$381k
Intercomparison Studies	\$47k	\$70k
Archives	\$75k	\$49k
Field Sampling Report	\$12k	\$21k
Set-Aside Contribution	\$0	\$0
Total	\$1,252k	\$1,239k
Delta relative to MYP	+\$13k	

Decision Whether to Continue Alkylated PAH analysis

Matrices monitored:

- Bivalves (every 2 years)
- Sediment (every 4 years)
- Water (every 10 years)

Target Analytes:

- High Molecular Weight (MW) PAHs, Low MW PAHs, Alkylated PAHs

Labs:

- Sediment: Formerly EBMUD. Switching to AXYS in 2018.
- Tissue: AXYS has run PAHs in bivalves since 2002.

Issue/Decision:

- Should we continue to measure alkylated PAHs? In which media? At what frequency? What to do for 2018 bivalves and sediment?

Factors to Consider

Cost. Dropping alkylated PAHs would save \$175 per sample (we would still get all the HMWPAHs* and LMWPAHs*). For sediment would save \$6k per sampling round. For bivalves would save \$2k.

Consistency over time. For tissue, the RMP has used 12 HMWPAHs, 13 LMWPAHs, and 15 AlkPAHs since 2002. It is the same for sediment but with 19 AlkPAHs. AXYS Lists 1-3 give us all of these compounds plus 32-36 more. See following sheet showing the RMP target analytes versus the lab lists.

Consistency with other programs. The target analytes on AXYS Lists 1-3 matches that used by Delaware River Basin Commission, Great Lakes Restoration Initiative, and Environment Canada.

*HMWPAH = High Molecular Weight PAHs
LMWPAH = Low Molecular Weight PAHs
AlkPAHs = Alkylated PAHs



PAH Compounds for RMP Sediment and Tissue Samples

SFEI Target PAH List from 2017 QAPP	AXYS List 1	AXYS List 2	AXYS List 3	Comments
High Molecular Weight PAHs				
Benz(a)anthracene	YES			
Benzo(a)pyrene	YES			
Benzo(b)fluoranthene	YES			
Benzo(e)pyrene	YES			
Benzo(g,h,i)perylene	YES			
Benzo(k)fluoranthene	YES			Reported as Benzo (JK) fluoranthene
Chrysene	YES			
Dibenz(a,h)anthracene	YES			"Dibenzo (ah)anthracene"
Fluoranthene	YES			
Indeno(1,2,3-c,d)pyrene	YES			
Perylene	YES			
Pyrene	YES			
Low Molecular Weight PAHs				
Acenaphthene	YES			
Acenaphthylene	YES			
Anthracene	YES			
Biphenyl		YES		
Dibenzothiophene	YES			
Dimethylnaphthalene, 2,6-	YES			
Fluorene	YES			
Methylnaphthalene, 1-		YES		
Methylnaphthalene, 2-	YES			
Methylphenanthrene, 1-	YES			
Naphthalene	YES			
Phenanthrene	YES			
Trimethylnaphthalene, 2,3,5-	YES			

PAH Compounds for RMP Sediment and Tissue Samples

SFEI Target PAH List from 2017 QAPP	AXYS List 1	AXYS List 2	AXYS List 3	Comments
Alkylated PAHs				
Chrysenes, C1-			see note	As C1- Benzo (a) anthracenes / Chrysenes
Chrysenes, C2-			see note	As C2- Benzo (a) anthracenes / Chrysenes
Chrysenes, C3-			see note	As C2- Benzo (a) anthracenes / Chrysenes
Chrysenes, C4-			see note	As C2- Benzo (a) anthracenes / Chrysenes
Dibenzothiophenes, C1-			YES	
Dibenzothiophenes, C2-			YES	
Dibenzothiophenes, C3-			YES	
Fluoranthene/Pyrenes, C1-			YES	
Fluorenes, C1-			YES	
Fluorenes, C2-			YES	
Fluorenes, C3-			YES	
Naphthalenes, C1-		YES		
Naphthalenes, C2-		YES		
Naphthalenes, C3-		YES		
Naphthalenes, C4-		YES		
Phenanthrene/Anthracene, C1-		YES		
Phenanthrene/Anthracene, C2-		YES		
Phenanthrene/Anthracene, C3-		YES		
Phenanthrene/Anthracene, C4-		YES		
Additional PAHs on the AXYS lists				
Benzofluoranthenes	YES			
1,2,6-Trimethylphenanthrene		YES		
1,2-Dimethylnaphthalene 1		YES		
1,4,6,7-Tetramethylnaphthalene 1		YES		
1,7-Dimethylphenanthrene		YES		
1,8-Dimethylphenanthrene		YES		
2,3,6-Trimethylnaphthalene 1		YES		

PAH Compounds for RMP Sediment and Tissue Samples

SFEI Target PAH List from 2017 QAPP	AXYS List 1	AXYS List 2	AXYS List 3	Comments
2,6-Dimethylphenanthrene		YES		
2-Methylanthracene		YES		
2-Methylphenanthrene		YES		
3,6-Dimethylphenanthrene		YES		
3-Methylphenanthrene		YES		
9/4-Methylphenanthrenes		YES		
Retene		YES		
1,7-Dimethylfluorene			YES	
1-Methylchrysene			YES	
2,4-Dimethyldibenzothiophene			YES	
2/3-Methyldibenzothiophenes			YES	
2-Methylfluorene			YES	
3-Methylfluoranthene/Benzo(a)fluorene			YES	
5,9-Dimethylchrysene			YES	
5/6-Methylchrysenes			YES	
7-Methylbenzo(a)pyrene			YES	
C1-Acenaphthenes			YES	
C1-Benz(a)anthracenes/Chrysenes			YES	
C1-Benzofluoranthenes/Benzopyrenes			YES	
C1-Biphenyls			YES	
C2-Benz(a)anthracenes/Chrysenes			YES	
C2-Benzofluoranthenes/Benzopyrenes			YES	
C2-Biphenyls			YES	
C2-Fluoranthenes/Pyrenes			YES	
C3-Benz(a)anthracenes/Chrysenes			YES	
C3-Fluoranthenes/Pyrenes			YES	
C4-Benz(a)anthracenes/Chrysenes			YES	
C4-Dibenzothiophene			YES	
C4-Fluoranthenes/Pyrenes			YES	



RMP Data Analysis Challenge

Project Description

The RMP is sponsoring a “Data Analysis Challenge” to attract more users to the Contaminant Data Display and Download (CD3; cd3.sfei.org) tool and to learn something new from the data displayed on CD3. This challenge coincides with the release of a new CD3 data download tool that enables users to better customize their downloads and retrieve data for multiple analytes and test materials.

Small cash prizes will be offered for the best story and analysis of data available through CD3. The TRC will decide the winners at the December TRC meeting. Below is the process and criteria for judging the submittals.

Judging Process and Timeline

- **Sept 19:** TRC approves judging process and criteria
- **Sept 20:** SFEI announces challenge: send email and flyer to RMP email list; send tweet; and add challenge to “Featured News and Events” item on SFEI’s website
- **Sept 20-Nov 19:** Submitters send submissions (one-page abstract and one-page static or interactive submission) to rmp-data-challenge@sfei.org. SFEI organizes submittals in dedicated folder and sends acknowledgements to submitters.
- **Nov 19:** Final day for submittals
- **Nov 20-Dec 3:** SFEI uses a Google form to score and select the top 10 submittals for TRC review

- **Dec 5:** SFEI includes top 10 submittals and scoring sheet in TRC December packet
- **Dec 13:** TRC scores submittals using the Google form or brings hard copy scoring sheet to TRC meeting
- **Dec 13:** TRC determines winners at TRC Meeting. The Prize Total is \$1,500 (1st - \$1,000 and 2nd - \$500).
- **Dec 14:** SFEI emails winners and announce winners on SFEI's website
- **Dec 31:** SFEI mails winners prize money

Evaluation Criteria

Submittals will be scored based on the following five criteria:

- **Completeness relative to guidelines** – Does the submission include a graphic, abstract, and a spreadsheet of the data used?
- **Quality of graphic or analysis** – Does the graphic tell the story in a clear and innovative way?
- **Quality of abstract** – Does the abstract describe the problem statement, methods used, results, and why the findings are important?
- **Originality and complexity of work** – Does the graphic attempt to address an original or complex question? Past analyses (e.g., diurnal fluctuations in salinity) are summarized in *The Pulse of the Bay* reports (<http://www.sfei.org/programs/pulse-bay>)
- **Breadth and scope of data used** – Does the graphic include more than one analyte, geographic scope, multiple years, or more than one test material?

Scoring Criteria and Process

Scoring results will be compiled using a Google form scoring sheet. The five evaluation criteria will be scored according to the following point system. The maximum score for a submission is 15 points.

- Strong (3 points)
- Medium (2 points)
- Weak (1 point)

Scoring will occur in two phases:

- Phase 1: SFEI (Phil, Don, Cristina, Nina) will review submissions and select the top 10
- Phase 2: TRC will review the top 10 submissions and select the winners.



RMP
 REGIONAL MONITORING
 PROGRAM FOR WATER QUALITY
 IN SAN FRANCISCO BAY
sfei.org/rmp

RMP 2018 ANNUAL MEETING AGENDA

Theme: RMP Update

October 11, 2018, The David Brower Center, Berkeley, CA

Remote Access: Audio: 1.415.594.5500, Access Code 943-326-397#; Slides: <https://join.me/sfei-conf-cw1>

9:00	Welcome and Introduction - <i>Tom Mumley, San Francisco Bay Water Board</i>
Session 1: RMP Highlights	
9:10	RMP Highlights: 2018 and 2019 - <i>Phil Trowbridge, San Francisco Estuary Institute</i>
9:30	Selenium in the Bay: Monitoring at a Crossroads - <i>Robin Stewart, US Geological Survey</i>
10:00	Dioxins in the Bay: Sources, Impairment, and Recovery - <i>Don Yee, San Francisco Estuary Institute</i>
10:20	Discussion - <i>Moderated by Tom Mumley, San Francisco Bay Water Board</i>
10:40	BREAK
Session 2: From Watersheds Through the Bay	
10:55	Water Quality Monitoring of the North Bay Fires - <i>Kevin Lunde, San Francisco Bay Water Board</i>
11:15	Green PlanIT: Planning Green Infrastructure for Stormwater Management in the Bay Area - <i>Jing Wu, San Francisco Estuary Institute</i>
11:35	Sediment Flux Through the Golden Gate During the High Flows of 2017 - <i>Maureen Downing-Kunz, US Geological Survey</i>
11:55	Discussion - <i>Moderated by Richard Looker, San Francisco Bay Water Board</i>
12:10	LUNCH
Session 3: Nutrients	
1:10	The Dissolved Oxygen TMDL for Suisun Marsh - <i>Barbara Baginska, San Francisco Bay Water Board</i>
1:30	What Factors Control Phytoplankton Blooms in the Bay? - <i>Zhenlin Zhang, San Francisco Estuary Institute</i>
1:50	Harmful Algae in San Francisco Bay - <i>Dave Senn, San Francisco Estuary Institute</i>
2:10	Discussion - <i>Moderated by Eric Dunlavey, City of San Jose</i>
2:25	BREAK
Session 4: Contaminants of Emerging Concern	
2:45	Pharmaceuticals in Wastewater - <i>Diana Lin, San Francisco Estuary Institute</i>
3:05	Bisphenols (Endocrine Disrupting Components in Plastics) in the Bay - <i>Ila Shimabuku, San Francisco Estuary Institute</i>
3:25	Flame Retardants in the Bay after the PBDE Ban - <i>Rebecca Sutton, San Francisco Estuary Institute</i>
3:45	Discussion - <i>Moderated by Karin North, City of Palo Alto</i>
4:00	Adjourn to Social







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
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@sefi.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			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
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.	Philip Trowbridge	12/31/18			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			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		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	09/30/18		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

Primary	Deliverable	Assigned To	Due Date	Status	Comments	Meeting Date
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
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		Report drafted and sent to the TRC on 6/4/18. Comments will be addressed by the end of the year.	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 unnecessary 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

Primary	Deliverable	Assigned To	Due Date	Status	Comments	Meeting Date
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, BAFPA, 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
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		Delayed until data have been QA'ed. Cyanide data is complete but Cu data are still awaiting a decision from the TRC about which results to use. This decision will be made in September 2018.	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

Primary	Deliverable	Assigned To	Due Date	Status	Comments	Meeting Date
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/charter-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
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
Technical Review Committee Action Items from 9/14/17	Finalize the June 8, 2017, TRC meeting summary and post to the public meetings folder.	Ila Shimabuku	09/25/17	Complete		09/14/17
Technical Review Committee Action Items from 9/14/17	Create a calendar event for the March 8, 2018 TRC meeting	Ila Shimabuku	09/25/17	Complete		09/14/17
Technical Review Committee Action Items from 9/14/17	Adjust the calendar event for the November 1, 2017, Multi-Year Planning meeting to include TRC members.	Ila Shimabuku	09/25/17	Complete		09/14/17
Technical Review Committee Action Items from 9/14/17	Reach out to all TRC and SC members to confirm their planned attendance at the RMP's Annual Meeting.	Philip Trowbridge	09/25/17	Complete		09/14/17
Technical Review Committee Action Items from 9/14/17	Revise the funding request memo for PBDEs in Tern eggs and put it on the agenda for the SC	Philip Trowbridge	11/01/17	Complete	On SC agenda	09/14/17
Technical Review Committee Action Items from 9/14/17	Develop a more specific plan for intercomparability studies to discuss at the December TRC meeting	Don Yee	12/14/17	Complete	On agenda for December mtg.	09/14/17

Primary	Deliverable	Assigned To	Due Date	Status	Comments	Meeting Date
Technical Review Committee Action Items from 9/14/17	Revise S&T Design based on feedback from the TRC and include it in the Multi-Year Plan	Philip Trowbridge	11/01/17	Complete		09/14/17
Technical Review Committee Action Items from 9/14/17	Determine why the RMP decided to test for water-column toxicity every 2 years instead of less frequently and report back to the TRC.	Jay Davis	12/14/17	Complete	On agenda for December mtg.	09/14/17
Technical Review Committee Action Items from 9/14/17	Report back to the TRC in December with information on the matrix that drives the continuing 303d listing for legacy pesticides and information on OEHHA guidelines for legacy pesticide in fish tissue.	Richard Looker	12/14/17	Complete	On agenda for December mtg.	09/14/17
Technical Review Committee Action Items from 9/14/17	Send information on all RMP data on legacy pesticides collected after 2006. Include both data tables and time series plots.	Philip Trowbridge	11/15/17	Complete	On agenda for December mtg.	09/14/17
Technical Review Committee Action Items from 9/14/17	Agendize a discussion of deploying radio-controlled moorings for bivalve samples for the December TRC meeting.	Philip Trowbridge	12/14/17	Complete	On agenda for December meeting	09/14/17
Technical Review Committee Action Items from 9/14/17	Ask Derek Muir about comparing results from the passive samplers to measured water concentrations. Report back to the TRC with the results from AQUAGAPS and how water concentrations from past RMP cruises compare.	Diana Lin	09/30/18		Delayed until data from AQUAGAPS is available.	09/14/17

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
Annual Reporting	Bay RMP (2018)	4. Annual Reporting	2018 RMP Update	Jay Davis	09/30/18				
Annual Reporting	Bay RMP (2018)	4. Annual Reporting	2018 Annual Meeting Venue and Catering Reservations	Ila Shimabuku	10/01/18				Date booked at DBC. Need to lock in a caterer and happy hour space at Jupiter. Figuring out remote connection & day-of logistics. Walk-through set for 9/27. Caterer being selected by Nina.
Annual Reporting	Bay RMP (2018)	4. Annual Reporting	2017 Annual Meeting	Philip Trowbridge	10/06/18				
Communications	Bay RMP (2018)	5. Communications	Q3 Estuary News Article	Jay Davis	09/30/18				
Communications	Bay RMP (2018)	5. Communications	Q3 RMP eUpdate	Jay Davis	09/30/18				
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				
Communications	Bay RMP (2018)	5. Communications	RMP Update for BPC	Philip Trowbridge	10/31/18				
Communications	Bay RMP (2018)	5. Communications	RMP Update for WSPA BATS Meeting	Philip Trowbridge	10/31/18				
Communications	Bay RMP (2018)	5. Communications	RMP Update for RB2 staff	Philip Trowbridge	10/31/18				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				
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				(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)

Focus Area	Project	Primary	Deliverable	Assigned To	Due Date	Due Date Extended	Old Due Date	Status	Comments
Data Management	Bay RMP (2018)	3. QA and Data Services	Updates to SOPs and Templates	Amy Franz	12/31/18				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				Report will cover 2018 Bird Egg, 2018 Bivalve, and 2018 Sediment data.
Dioxin	Bay RMP (2017)	Dioxin Synthesis Report	Dioxin Synthesis Report	Don Yee	09/30/18		12/31/17		Draft originally due 12/31/2017; Delayed due to competing priorities (year-end deadlines for San Leandro Bay SEP Report) and then staff absences. Draft to PCB/Dioxin WG due 5/3/2018. Final draft by 9/30/18.
Emerging Contaminants	Bay RMP (2016)	EC Non-targeted Analysis	Report on Non-Targeted Analysis of Water-Soluble CEC Compounds	Rebecca Sutton	09/30/18		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.
Emerging Contaminants	Bay RMP (2016)	EC Non-targeted Analysis	Fact Sheet on Non-Targeted Analysis of Water-Soluble CEC Compounds	Rebecca Sutton	09/30/18		06/30/17		Fact sheet is to accompany the final report. Provide final fact sheet to EB Parks.
Emerging Contaminants	Bay RMP (2018)	CUPs and Wastewater Contaminants in Margin Sediment and Water	Technical Report	Matt Heberger	09/30/18				Draft report due by summer '18; final due by 9/30/18
Emerging Contaminants	Bay RMP (2018)	Pharmaceuticals in Wastewater: Data Analysis and Reporting	Technical Report	Diana Lin	09/30/18				Draft report due by summer '18; final due by 9/30/18
Emerging Contaminants	Bay RMP (2018)	CUPs and Wastewater Contaminants in Margin Sediment and Water	Data upload to CEDEN	Amy Franz	11/01/18				In Progress.
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				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		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)	North Bay Post-Fire Monitoring	Manuscript on results of non-targeted analysis	Rebecca Sutton	01/31/19				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				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				
Emerging Contaminants	Bay RMP (2018)	Non-targeted Analysis of Sediment and Water	Fact sheet and technical report	Rebecca Sutton	05/05/19				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				
Emerging Contaminants	Bay RMP (2019)	Ethoxylated Surfactants Study	Wastewater and water sample collection	Diana Lin	08/31/19				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				
Emerging Contaminants	Bay RMP (2019)	Ethoxylated Surfactants Study	QA of data and upload to CEDEN	Amy Franz	02/28/20				

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Emerging Contaminants	Bay RMP (2019)	EC Strategy	Update RMP CEC Strategy Document	Rebecca Sutton	04/01/20				https://www.sfei.org/sites/default/files/events/ECWG%20-%2001%20-%20ECStrategyProposal2019.pdf
Emerging Contaminants	Bay RMP (2019)	EC Strategy	Present updated RMP CEC Strategy at SC	Rebecca Sutton	04/01/20				
Emerging Contaminants	Bay RMP (2019)	Ethoxylated Surfactants Study	Preliminary results presentation at ECWG Meeting	Diana Lin	04/01/20				
Emerging Contaminants	Bay RMP (2019)	Ethoxylated Surfactants Study	Manuscript and summary for managers	Diana Lin	08/01/20				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	09/30/18		04/15/18		Draft: April 2018; Final: June 2018 -> delayed to get comments from EEWG, Working on draft report, expect draft in Aug 2018.
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				
Exposure and Effects	RMP SEP	9. DMMO Data Synthesis for PCBs	Technical Report	Jay Davis	03/30/19				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	September TRC Meeting	Philip Trowbridge	09/13/18				
Governance	Bay RMP (2018)	2. Governance	October SC Meeting	Philip Trowbridge	10/24/18				
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				
Microplastics	Bay RMP (2018)	Microplastics in San Francisco Bivalves	Presentation to TRC/SC	Meg Sedlak	06/17/19				
Microplastics	Bay RMP (2017)	Microplastic Characterization Study (Moore Foundation)	Baseline Report - Year 2	Meg Sedlak	09/02/19				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				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				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				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-%20Priority2Microplastic%20in%20Sportfish%20Proposal05292018.pdf
Microplastics	Bay RMP (2019)	Microplastic Strategy	Present updated Microplastic Strategy to SC	Rebecca Sutton	01/31/20				
Nutrients	Bay RMP (2019)	Nutrients Special Studies							Nutrient special studies are tracked through the Nutrient Management Strategy.
Nutrients	Bay RMP (2018)	Ship-based sampling and sample analysis	Results reported in FY18 NMS Annual Report	Dave Senn	09/15/18				Ship-based discrete samples will be collected by USGS aboard the R/V Peterson on ~12 full-bay cruises and an additional ~12 South Bay cruises.
Nutrients	Bay RMP (2018)	Open-Bay and Slough Moored Sensors: Data Analysis, Interpretation, and Maintenance	Results reported in FY18 NMS Annual Report	Dave Senn	09/15/18				Maintain the network of moored sensors in open waters and margin areas of Lower South Bay measuring dissolved oxygen, etc. Data analysis with a major focus on quantitative mechanistic interpretation to identify factors contributing to observed DO conditions, possibly including the use of simplified reactive-transport models.
Nutrients	RMP SEP	3. 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	09/30/18		03/31/18		This deliverable will be an update to the CM report prepared in 2017. The update will incorporate the field data from Phase II and Phase III sampling efforts. Draft was sent to PCB WG on 5/3/18. Final by September 2018.

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PCB Strategy	Bay RMP (2017)	PCB Margins Conceptual Model	Steinberger Slough Priority Margin Unit Conceptual Model Report	Jay Davis	09/30/18		08/31/17		Revised due dates due to workflow (year-end SEP project deadlines): Draft for WG/TRC/SC by August 2018. Final by 9/30/18 – Review by PCB WG.
PCB Strategy	Bay RMP (2018)	San Leandro Bay Fish Diet Analysis	Technical Report	Jay Davis	09/30/18		03/31/18		Andy Jahn subcontract. Report prepared. Awaiting comments from PCBWG before finalizing. Final by September 2018.
PCB Strategy	Bay RMP (2018)	Richmond Harbor Priority Margin Unit Conceptual Model Development	Technical Report	Jay Davis	05/15/19				\$30K needed from 2019 or SEP. Draft report on Richmond Harbor due May '18; Final report on Richmond Harbor due August '18
PCB Strategy	Bay RMP (2019)	PCB Strategy	Updated PCB multi-year plan	Jay Davis	06/30/19				https://www.sfei.org/sites/default/files/events/PCBWG%20-%2001%20-%20Strategy%20Support%20and%20Technical%20Coordination%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				Coordinated sampling of PCBs in shiner surfperch in four PMUs as an add-on to S&T sport fish sampling. https://www.sfei.org/sites/default/files/events/PCBWG%20-%2003%20-%20Shiner%20Surfperch%20PMU%20Survey%20Revised.pdf
PCB Strategy	Bay RMP (2019)	Priority Margin Unit Stormwater PCB Monitoring	Stormwater sample collection at Emeryville Crescent sites in WY19 and WY20	Alicia Gilbreath	04/30/20				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/PCBWG%20-%2002%20-%20Priority%20Margin%20Unit%20Stormwater%20PCB.pdf
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				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/PCBWG%20-%2002%20-%20Priority%20Margin%20Unit%20Stormwater%20PCB.pdf
PCB Strategy	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				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				Draft by December 2020; Final by February 2021.
Program Management	Bay RMP (2018)	1. Program Management	Q4 RMP Financial Report	Philip Trowbridge	10/24/18				
Program Management	Bay RMP (2018)	1. Program Management	2019 Multi-Year Plan	Philip Trowbridge	01/31/19				Draft in October '19, Final in January '19
Program Management	Bay RMP (2018)	1. 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 (2019)	Sediment Conceptual Understanding and Monitoring Strategy	Working meeting with regional experts	Scott Dusterhoff	10/31/18				https://www.sfei.org/sites/default/files/events/SedimentWG%20-%2001%20-%20Dusterhoff%20-%20HWRB%20Sed%20Monitoring%20Strat%20Suppl_UPDATE5.pdf
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				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				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 Suspended Sediment 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

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Sediment Strategy	Bay RMP (2017)	Sediment Monitoring Strategy	Sediment Monitoring Strategy (in collaboration with HWRB Project)	Philip Trowbridge	01/01/19				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				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				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				
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 Beneficial Reuse Workshop	Workshop summary	Philip Trowbridge	05/31/19				Draft summary by May 2019 (for Sediment WG). Final by September 2019.
Sediment Strategy	Bay RMP (2019)	Sediment Bulk Density Study	Technical Report	Jeremy Lowe	05/31/19				Draft for Sediment WG by May 2019. Final by August 2019.
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				Presentation slides showing an analysis of sediment loads and comparisons with historical data.
Sediment Strategy	Bay RMP (2019)	Sediment Bathymetric Change Study	Interim Report (Year 1 Progress Report)	Bruce Jaffe (USGS)	06/30/19				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%20Update%205-24-18.pdf
Sediment Strategy	Bay RMP (2019)	Sediment Conceptual Understanding and Monitoring Strategy	Presentation of Final Conceptual Understanding and Strategy	Scott Dusterhoff	10/31/19				Forum will be the RMP Sediment WG or a Healthy Watersheds/Resilient Baylands Project meeting.
Sediment Strategy	Bay RMP (2019)	Sediment Bathymetric Change Study	Final Report (Year 2)	Bruce Jaffe (USGS)	07/31/20				Contract with Bruce Jaffe USGS. Project was split between two years. Draft due July 2020. Final report due October 2020
Selenium Strategy	Bay RMP (2015)	Selenium Special Studies / Selenium Sturgeon Tissue Plug Monitoring	2015 Sturgeon Muscle Plug Final Report	Jennifer Sun	09/30/18		05/31/16		Preliminary results presented at the Selenium Workgroup meeting in May 2016 and at the RMP Annual Meeting in October 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 9/30/18.
Selenium Strategy	Bay RMP (2016)	Selenium 2016 Derby Monitoring	2016 Sturgeon Derby Final Report	Jennifer Sun	09/30/18		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 9/30/18.
Selenium Strategy	Bay RMP (2017)	2017 Sturgeon Derby Monitoring	Technical Report on Selenium in White Sturgeon from the 2017 Sturgeon Derby	Jennifer Sun	09/30/18		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	6. Suisun Bay Selenium Monitoring Study	Upload 2016 and 2017 Tissue Plug Samples to CEDEN	Jennifer Sun	09/30/18				MMP funds
Selenium Strategy	RMP SEP	6. Suisun Bay Selenium Monitoring Study	Field Studies Report (2015, 2016, 2017 Muscle Plug Data)	Jay Davis	09/30/18				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 9/30/18. SEP deadline is 12/31/18.
Selenium Strategy	RMP SEP	6. Suisun Bay Selenium Monitoring Study	Financial Oversight	Jennifer Sun	12/31/18				Laboratory analysis by USGS and UCED.
Selenium Strategy	RMP SEP	8. North Bay Selenium Synthesis	Monitoring Design Framework Report	Jay Davis	12/31/18				Examination of the linkages between three indicators (water, sediment, tissue), statistical framework for monitoring design and data evaluation, and consideration of analytical methods.

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Selenium Strategy	Bay RMP (2019)	Selenium Strategy	Update Selenium Multi-Year Plan	Jay Davis	06/30/19				https://www.sfei.org/sites/default/files/events/SeWG%20-%2001%20-%20Strategy%20Support%20and%20Technical%20Coordination%202019.pdf
Selenium Strategy	Bay RMP (2019)	Selenium in Muscle Plugs	Collect and analyze muscle plug samples	Nina Busby	03/31/20				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-%20Sturgeon%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				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%20-%2002%20-%20North%20Bay%20Clam%20and%20Water.pdf
Sources Pathways and Loadings	Bay RMP (2016)	STLS Trends Strategy Support	POC trends, Guadalupe Trends Model Report	Philip Trowbridge	09/30/18		12/31/16		Report is in final draft form. Draft was sent to SPLWG/TRC in May 2018. Awaiting final comments from STLS (due by 8/31/18). History: This task started in 2016 but has continued through 2018 will an evolving scope. 2016 Trends Strategy funds were initially used to explore a power analysis using data from four well-sampled watersheds to determine a monitoring program that would be sufficient to track trends. Peer reviewers later recommended additional data exploration in one watershed (Guadalupe River). A trends model for the Guadalupe River was developed and presented to the SPLWG in May 2017. The model was refined in 2017. There was a call with the trends advisors in November 2017. A technical report on the new model was prepared by AMS by 12/31/17. Comments from science advisors and STLS were received by 2/28/18. The report was revised by 12/31/18.
Sources Pathways and Loadings	Bay RMP (2017)	STLS POC Watershed Characterization	Report on Pollutants of Concern monitoring in WY 2017	Alicia Gilbreath	09/30/18		05/31/18		Draft was sent to SPLWG/TRC in May 2018. Awaiting final comments from STLS (due by 8/31/18).
Sources Pathways and Loadings	Bay RMP (2018)	Planning Support for Stormwater Alternative Flame Retardants Conceptual Model	Technical Report	Diana Lin	09/30/18		04/15/18		Report drafted. Comments received from ECWG. Waiting for any final comments from SPLWG before finalizing (due by 8/31/18).
Sources Pathways and Loadings	Bay RMP (2018)	Trends strategy development	Develop a regional trends strategy road map	Jing Wu	09/30/18				Awaiting final comments from STLS (due by 8/31/18).
Sources Pathways and Loadings	Bay RMP (2019)	STLS WY19 POC Recon Monitoring	A. Site Selection List	Alicia Gilbreath	10/31/18				https://www.sfei.org/sites/default/files/events/SPLWG%20-%2002%20-%20POC%20Watershed%20Characterization%20Reconnaissance%20Monitoring.pdf
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 SPLWG/TRC review September 30 - Final draft
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				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				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				
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				Draft for SPLWG review by May 2019. Final by July 2019. Task B "model development" was not funded. https://www.sfei.org/sites/default/files/events/SPLWG%20-%2003%20and%2005%20-%20Regional%20Model%20Development%20for%20Trends%20Strategy.pdf

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Sources Pathways and Loadings	Bay RMP (2019)	STLS Advanced Data Analysis (Phase II)	Technical Report on Advanced Data Analysis	Lester McKee	05/31/19				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-%2004%20-%20Advanced%20Data%20Analysis.pdf
Sources Pathways and Loadings	Bay RMP (2019)	STLS WY 19 POC Recon Monitoring	C. Lab analysis, QA, and Data Management	Amy Franz	09/30/19				
Sources Pathways and Loadings	Bay RMP (2019)	STLS WY 19 POC Recon Monitoring	D. Interpretation & Reporting	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		05/31/18		Sport Fish WG meeting will be in the fall, not the spring.
Status and Trends	Bay RMP (2018)	6. Status and Trends C. 2018 Bivalve Cruise (Summer 2018)	Manage subcontracts for field and laboratory work & staff cruise	Philip Trowbridge	09/30/18				
Status and Trends	Bay RMP (2017)	6. Status and Trends F. Margins Sediment Study	Final Report for South Bay Margins Sediment Study	Don Yee	12/01/18				Draft to TRC by 12/1/18 (to discuss at Dec TRC meeting); final by 3/31/19.
Status and Trends	Bay RMP (2017)	6. Status and Trends L. PBDE Analysis for Archived 2016 Bird Eggs	Analysis of 12 archived tern egg samples. Results reported in an EDD.	Ila Shimabuku	12/31/18				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				(1) Standardize vocabulary for station names and other fields (2) Add field for Station Name and separate Station 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 less useful. 40-50 hours available for Michael. Use 20 hours to take a first cut at the tasks and then have a check-in meeting. 7/24/18: Chase down missing information in projects EEPS, 08RMPEE, 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 data 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)	6. Status and Trends H. 2018 Sediment Cruise Data Mgmt	Format, QA, and Upload 2018 Sediment Cruise Data	Amy Franz	03/01/19				