RMP Steering Committee Meeting

12 August 2024





1. Introductions and Review Goals for the Meeting (10 minutes)



- 1. Introductions and review goals of the meeting (10 min)
- 2. Approve last meeting summary, confirm future meeting dates (10 min)
- 3. TRC Meeting summary from June 13 (10 min)
- 4. SC Chair and Vice-Chair Plan, RMP Charter Amendments (30 min)
- 5. RMP Financial Update for 2024 Quarter 2 (15 min)
- 6. Update on Fee Schedules and the MOU (30 min)
- 7. Approve Special Studies for 2025 and List of Eligible Studies for SEP Funding (1 hr)
- 8. Proposals for Funding from Undesignated Reserve (30 min)
- 9. RMP/USEPA Budget and Workplan Development (30 min)
- 10. Multi-Year Planning Workshop Agenda (45 min)
- 11. Communications (30 min)
- 12. Deliverables and Action Items (15 min)
- 13. Plan Agenda Items (5 min)
- 14. Plus/Delta (5 min)



Decision: Approve Meeting Summary from April 15, 2024 and Confirm Future Meeting Dates (10 minutes)

Desired outcomes:

- Approve meeting summary
- Confirm future SC meeting and Annual Meeting dates

Meeting Schedules

Scheduled Steering Committee meetings: November 4, 2024 (+ MYP Workshop)

January 2025 TBD

Scheduled Technical Review Committee meetings: September 24, December 12, 2024

Annual Meeting:

October 16, 2024



3. Information: TRC Meeting Summary from June 13, 2024 (10 minutes)

Desired outcome:

• Informed Committee

TRC 6/13 Meeting Summary

- Information: USEPA San Francisco Bay Program Office Funds
- Discussion: Presentation of Special Study Proposals Recommended by Workgroups
- Decision: Recommendation for Special Studies for 2023
- Discussion: 2024 S&T Monitoring Update and Plans for 2025
- Decision: Update List of RMP Projects Eligible for SEP Funding and Recommend Allocation of Existing SEP Funds
- Discussion: Plus/Delta on workgroup Meetings



4. Decision: SC Chair and Vice-Chair Plan, RMP Charter Revisions (30 minutes)

Desired outcome:

 Decisions on: Adding a SC seat for USEPA, Emeritus members, SC Chair and Vice-Chair plan

Adding a Seat for USEPA

- Now that USEPA is providing major funding for the RMP, should they have a seat on the Steering Committee?
 - Note: USEPA already has a seat on the TRC
 - If yes, will revise the Charter



RMP Timeline

RMP MILESTONES 1986-2017

The RMP has been made possible by the contributions of scores of people over the years. This timeline highlights people mentioned in the text and those who are still active in the Program and have been active for 10 years or more, with photos indicating each person's first year of RMP activity.



RMP Timeline



RMP Timeline



PCBs TMDL approved

RMP Founders: 2004 Annual Meeting

Thank You Tom Mumley!

- One of the RMP Founders
- Outstanding committee and workgroup member
- Joined SC as Water Board representative in 2007
- SC Chair from 2011 to 2024
- On to the next phase!



2006 Annual Meeting





Emeritus SC Members

- A new element for the SC
- Good for the RMP to retain access to the knowledge of retired SC members
- Questions
 - Voting members or just advisors?
 - If voting members
 - Presumably they get a "seat"
 - Need to revise the Charter
 - How many emeritus seats should be allowed?
 - Can they be Chair/Vice-Chair?
 - If advisors
 - Don't need a "seat"
 - May not need to alter the Charter
 - No need to limit the number
 - Can they be Chair/Vice-Chair?



Chair/Vice Chair Plan

- Today: Tom/Karin
- November 4: ??/??
- At November 4 meeting confirm chairs and Charter for the next 12 months (item on the annual calendar for the SC)



5. Information: RMP Financial Update for 2024 Q2 (15 minutes)

Desired outcome:

• Informed Committee

The Big Picture



2024 Budget and Expenses

Budget Final and Actuals JTD





- 26% expended
- 78% of invoiced fees received
- Surplus of \$56



- 81% expended
- 100% of invoiced fees received
- Surplus of \$98k due to \$118,250 in SEP funds supporting part of task 45 Sediment Delivery to Marshes in C&N Bays



- 88% expended
- 100% of invoiced fees received
- Surplus of \$18k (reduced from \$138k in previous quarters)



- 89% expended
- 100% of invoiced fees received
- Surplus of \$3.5k



- 94% expended
- 100% of fees have been collected



- 95% expended
- 100% of fees have been collected

Unencumbrances

• None this quarter



Undesignated Funds Balance



Undesignated Funds Changes LAIF (local agency investment fund) interest received

2023

- Q1 LAIF interest of \$34,081 (2.74% rate)
- Q2 LAIF interest of \$38,160 (3.15% rate)
- Q3 LAIF interest of \$55,146 (3.59% rate)
- Q4 LAIF interest of \$61,057 (4% rate)

2024

- Q1 LAIF interest of \$59,339 (4.30% rate)
- Q2 LAIF interest TBD (4.55% rate)



Unbudgeted Funds Summary



S&T Set Aside Funds

S&T Monitoring Dedicated Set-Aside Funds and S&T Budget



Information for Steering Committee

- **Unallocated SEP Funds**
 - \$195,289 currently unallocated in SEP funds

Information for Steering Committee

Participant & Supplemental Fee Update

- Municipal participant & supplemental fee invoicing sent (May)
- Industrial participant fee invoicing sent (June)
- Stormwater participant & supplemental fee invoicing sent (June & Aug)
- Dredger invoicing pending



6. Discussion: Update on Fee Schedules and the MOU (30 minutes)

Desired outcome:

• Initial discussion of RMP fees for 2026-2028

Bay RMP fee increase history

- Fee increases have ranged from 1-5% since 2000
- Budget increases have rarely kept up with inflation (except 2000, 2002, 2003, and 2020)
- No fee increases in 2006, 2011, 2012, and 2022
- Usually set fees for a three year window for planning purposes



RMP Budget projections 2025-2028

Assumptions:

- Project Management assumes 3.3% increase annually based on avg. CPI for the last 10 years
- S&T cost includes set-aside contributions/withdrawals as outlined in MYP
- Special Studies estimates only go to 2026 in MYP, 2027 and 2028 are averages of previous years + 3.3% COLA
- Does not account for any SEP, USEPA, AMR, or MRP funds
 - Fairly certain of USEPA funds for RMP years 2025 & 2026
 - Less certain of 2027 & 2028
- Did not adjust for any dredger shortfall



	2025	2026	2027	2028
RMP Fees	\$4,081,340	TBD	TBD	TBD
Pred. Cost of PM	\$1,545,515	\$1,596,517	\$1,649,202	\$1,703,626
Pred. Cost of S&T	\$1,578,000	\$1,660,000	\$1,674,000	\$1,600,000
Pred. Cost of SS	\$2,391,000	\$2,023,000	\$2,279,831	\$2,304,909
Difference	-\$1,433,175	TBD	TBD	TBD
0% (same as 2025)		-\$1,198,177	-\$1,521,693	-\$1,527,195
+ 3% (business as usual)		-\$1,075,737	-\$1,399,253	-\$1,404,755
+ 1.5% (reduced fees)		-\$1,136,957	-\$1,460,473	-\$1,465,975
+ 4% (higher fees)		-\$1,034,923	-\$1,358,439	-\$1,363,941

Next Steps

- Discussions on the next dredger fee schedule are ongoing and fees will be set at the November SC meeting
- The next MOU amendment will be issued in the fall



Decision: Approve Special Studies for 2025 and List of Eligible Studies for SEP Funding (1 hour)

Desired Outcome:

- Approved list of special studies to be funded in 2025 and updated SEP list
- Approval of early release of funds for selected proposals
Link to: 2025 Special Studies Proposals

Link to: Draft SEP List

Emerging Contaminants Workgroup

Proposal Name	Tier	Budget	Notes
CEC Strategy	1	\$70k	
Stormwater CECs Monitoring and Modeling 2025 (base funding)	1	\$300k*	This project will continue implementing the RMP stormwater CECs integrated monitoring and modeling program. It builds on prior projects that have identified priority near-term management questions, identified the modeling and data analysis approach to address these questions, developed and piloted the SFEI Mayfly remote sampler, and are currently framing out the stormwater CECs monitoring design. * Early release of RMP funds requested
Plastic Additives in Bay Water and Archived Sediment**	1	\$235.2k	Plastic additives are an extensive group of chemicals used in the production of plastics. Further monitoring already approved for 2024 will examine plastic additive classes in wastewater. We propose a study to assess the concentrations of plastic additives in Bay water (leveraging S&T sample collection) and archived sediment. Data would result in addition of multiple new chemicals and classes to the RMP tiered risk-based framework.

Proposal Name	Tier	Budget	Notes
Quaternary Ammonium Compounds (QACs) in Bay Water (and Stormwater)**	1	\$111k*	The COVID-19 pandemic increased use of products containing antimicrobial QACs. We propose a study to assess the concentrations of at least 20 QACs in Bay water. Data developed would allow for more definitive placement within the tiered risk-based framework. * Original ECWG budget \$106, increased to expand analyte list as requested ** Stormwater component considered highest priority for undesignated or 2026 funds
Nontarget Analysis of San Francisco Bay Fish (Year 2)	1	\$76k	This two-year study leverages 2024 S&T sport fish monitoring to collect samples for nontarget analysis. Year 1 included planning and sample collection. Year 2 will cover the laboratory analysis and reporting on unanticipated contaminants that may merit follow-up targeted monitoring. It will also allow comparison to Great Lakes fish.
Stormwater In Vitro Toxicity Screening (time sensitive)	1	\$26k	The USEPA Center for Computational Toxicology and Exposure (CCTE) and EPA Region 10 are piloting using a rainbow trout gill cell high-throughput assay to detect toxicity of stormwater samples. We leveraged RMP stormwater sampling to collect a modest number of samples for pro bono analysis. This proposal covers Bay Area-specific data analysis and interpretation as well as coordination with EPA Region 10 and CCTE. This project represents early implementation of an element of the CEC strategy, strategic use of novel toxicological methods to inform management.

Proposal Name	Tier	Priority	Budget	Notes
Stormwater CECs Monitoring and Modeling 2025 (expanded funding)	2	1	\$150k	Highest priority for ECWG.
Nontarget Analysis Add-On to Stormwater 2025 Monitoring	2	N/A	\$36k	ECWG requested add-on to stormwater study.
Plastic Additives in Stormwater	2	N/A	\$74.8	ECWG requested add-on to Plastic Additives in Bay Water and Archived Sediment proposal
Tire Rubber Marker Analysis for Tire Wear Particle Quantification	2	2	\$105k	Tire Wear Particles may be the biggest source of microplastics to the Bay, and are also a source of tire-related contaminants. Norwegian Institute for Water Research (NIVA) scientists have developed state of the art methods for quantifying tire wear particles using reference tire materials. This proposal would analyze tire tread rubber from a representative set of new tires for the Bay Area. Results will be publicly shared through a peer-reviewed manuscript led by NIVA, and integrated into future RMP and SFEI reports.

Proposal Name	Tier	Priority	Budget	Notes
PFAS NMR Analysis in Wastewater, Stormwater, and Bay Matrices (Year 1 of 2)	2	3	\$125k	Most PFAS studies focus on targeted analysis of up to 40 individual PFAS. A new approach uses 19F NMR spectroscopy to more broadly detect and quantify fluorine-containing compounds. We propose applying this new method to wastewater and stormwater samples to provide complementary analysis. Limited analysis of extracts of other Bay matrices is included.
Nontarget and Target Analysis of Fibers and Urban Stormwater	2	4	\$123.7k	Synthetic textiles represent a large and growing source of chemical and microfiber contamination globally. We propose to conduct nontarget analysis and target PFAS analysis on textile fibers and urban stormwater to identify textile-related contaminants with the potential to impact water quality. This study would leverage an independent study to investigate whether dryers are an important source of microfibers. Nontarget analysis can indicate the presence of plastic additives in fibers released to the environment, and statistical techniques can explore linkages between fibers and urban stormwater runoff.

Proposal Name	Tier	Priority	Budget	Notes
PFAS Rainwater (Wet Deposition Pathway) Community Science: Phase 1 Planning	2	5	\$60k	While PFAS have been detected in rain elsewhere, we lack local data that would allow us to draw assess the overall importance of this pathway to the Bay. Local community groups have expressed concern about PFAS exposures and health. We propose convening members of interested community groups to establish a collaborative plan to investigate the presence of PFAS in rainwater in the Bay Area. The planned study would be expected to incorporate citizen science to robustly monitor wet deposition through simple rainwater collection stations.
PFAS Analysis Add-On to Stormwater Depth Monitoring Pilot	2	6	\$55k	The proposed study would leverage a funded stormwater sample collection effort by collecting additional samples to provide an initial dataset to evaluate whether single-depth stormwater PFAS sampling is supported by field measurements.

Microplastics WG

Proposal Name	Priority	Budget	Notes
Microplastics WG Strategy		\$20K	
Special Study: Pilot Study for Field Collection Methods and Particle Distribution Analysis of Microplastics in Urban Stormwater (Year 2)	1	\$106.2K	Important for informing future stormwater monitoring approach, including how to leverage CECs stormwater monitoring approaches. Budget and sample number optimized to include microplastics and tires analysis using FTIR, LDIR, and pyrolysis GC-MS.
Tier 2: Microplastics in Sport fish	2	\$130K	Leverages S&T Sport fish sample collection. \$3.5K requested for archive

Sediment Workgroup

Proposal Name	Tier	Priority	Budget	Notes
Develop a study plan to improve characterization of bed sediments and settling velocity to advance sediment transport modeling for San Francisco Bay	1	1	\$99,550	High value study for improving our modeling capabilities. Could we accelerate the start of this effort by requesting early release of 2025 funds? That would set up a 2026 Special Study proposal to actually start executing the workplan
Shoreline Change in San Francisco Bay	2	2	\$50,000	Marsh edge erosion is a key aspect of marsh survival and needs to be studied baywide. The original budget was \$80k so SedWG recommended funding \$50k in 2025 (Phase 1) and have a 2026 proposal developed for Phase 2.
Suspended-Sediment Flux Measurements at Richmond-San Rafael Bridge, California	2	3	\$15,000	Effort focuses on installing a WQ sensor on the Richmond Br and monitoring for 1 year. The sensor data will supplement the sediment fliux transect work that will be done at the Richmond Br in CY2025. The sensor could reamain after CY2025 if funding is available.

Sediment Workgroup (cont'd)

Proposal Name	Tier	Priority	Budget	Notes
Refining the Conceptual Understanding of Sediment Transport in San Pablo Bay	1	4	\$65,000	Effort focuses on compiling existing sediment source, transport, deposition info in San Pablo Bay and describing our conceptual understanding of sediment process in this subembayment in a way that has not been done before.
Sediment dynamics in a fluvially influenced salt marsh	2	5	\$121,500	Effort focuses on sediment delivery to and accumulation in Grays Marsh on the Petaluma River. Sediment accumulation in river-influenced marshes hasn't hasn't really been studied in the Bay.

Sources Pathways and Loading Workgroup

Proposal Name	Tier	Budget	Notes
SPLWG WG Strategy		\$65k	
Integrated Monitoring and Modeling to Support PCBs and Mercury Watershed Loads Uncertainties Assessment and Monitoring Design (Year 2 of 2)	1	\$110k	This proposal is for Year 2 of 3 for the integrated monitoring and modeling activities for PCBs and Hg. In this study, we propose to estimate model uncertainties in the Watershed Dynamic Model, determine model sensitivities to parameter and data weaknesses, and provide PCBs and Hg monitoring design recommendations. For 2025, we will complete 2/3rds of these activities and intend for completion of the project in 2026.
Tidal Area Remote Sampler Pilot - Yr 3	1	\$15k	Funds finishing the Tidal Area Remote Sampler Pilot which involves sampling in eight tidally influenced areas around the Bay, and using the additional funds to resample one of the sites sampled last year where the sampler was vandalized and no sample was collected, as well as provide for an additional year of project management.
Stormwater CECs Modeling and Data Analysis	1	\$39k	Funds the expansion of modeling and data analysis work in the Stormwater CECs Modeling and Modeling 2025 project with the development and assessment of new geospatial datasets. This project will be coordinated with research on PFAS sources and solutions, with the anticipation of completing urban stormwater PFAS load estimates by 2028.

Sources Pathways and Loading Workgroup (cont'd)

Proposal Name	Tier	Budget	Notes
GIS Improvements to Support Modeling, Data Interpretation, and Site Selection	2	\$40k	Funds background workplan development for geographic datasets to support monitoring and modeling of Bay watersheds. Task 1 focuses on updating drainage area maps in urban areas, outdated due to population growth and construction. Task 2 focuses on updating land use and land cover data important for watershed modeling. New options leverage satellite remote sensing artificial intelligence. Outputs will include a survey of current dataset options, a pilot analysis, and a recommendation of which new datasets are most suitable.
Add-on to Stormwater Contaminants of Emerging ConcernMonitorin g and Modeling 2025 Project to Include Additional Non-CECs Analytes	2	\$50k	The proposed project adds on non-CECs analytes to the manual stormwater sampling efforts that will be completed through the Stormwater Contaminants of Emerging Concern Monitoring and Modeling 2025 project. Two goals underlie the proposed additional analyte collection: 1) to opportunistically obtain stormwater monitoring data about other pollutants of concern in the Bay, and 2) to inform CECs monitoring data interpretation, such as examining whether observed variability in CECs levels is consistent with our understanding of the variability of other constituents in urban runoff. Recommendations from the ECWG and SPLWG were considered during the workgroup meetings.

Sources Pathways and Loading Workgroup (cont'd)

Proposal Name	Tier	Budget	Notes
Develop Discharge Rating Curves at County-Operated Stage Monitoring Stations	2	\$30k	Cities, counties, water suppliers, and flood control districts operate a number of "stage-only" gauges that can be used to estimate discharge by monitoring and creating a relationship (called a rating curve) between recorded stage and discharge based on measurements over a wide range of flow conditions to minimize extrapolation errors. The recommended funding for this project is to research and develop an upfront workplan for monitoring select sites to where developing these rating curves would fill the biggest gaps in existing coverage. This planning effort will include working with and integrating input from advisors and stakeholders.
Stormwater Systems Management Upgrades	2	\$80k	Funds updating the systems that underlie the stormwater monitoring program for greater efficiency (e.g. automation sampling processes and sampling related documentation; expanded team training to build labor capacity; and labor time to contact other major sampling programs to identify best systems processes and the latest monitoring method technologies). Needed to continue expanding the program and delivering the highest quality data in the most efficient way.

PCB Workgroup

Proposal Name	Tier	Priority	Budget	Notes
Strategy			\$10,000	
Contaminant Flux Field Sampling in San Leandro Bay	2	1	\$704,500	Parts A and B. Need to start this winter to inform TMDL. Added passive samplers and sediment traps based on WG feedback.
Mapping Mudflat Morphodynamics Matching Imagery with Water Levels	2	1	\$25,000	Proposed for early 2025
Sediment Trap Collection Reconnaissance Pilot	2	1	\$22,000	Proposed to start this winter

- PCBWG recommended funding all three studies
- All would support model development in San Leandro Bay, a conceptual focal point for a revised TMDL

	EPA FY23/24 (augmenting RMP 25+26)	RMP 25 (\$1,540,171 available for SS)	Covered by forthcoming SEP	Notes
ECWG Strategy		\$80,000		
Tires Strategy		<mark>\$10,000</mark>		
ECWG Stormwater CECs Monitoring and Modeling 2025		\$450,000		Early release of RMP funds requested
ECWG Plastic Additives in Bay Water and Archived Sediment	\$250,000			
ECWG Quaternary Ammonium Compounds (QACs) in Bay Water and Stormwater	\$200,000			
ECWG Nontarget Analysis of San Francisco Bay Fish (Year 2)	\$76,000			
ECWG Stormwater In Vitro Toxicity Screening		\$26,000		Early release of RMP funds requested
ECWG Tire Rubber Marker Analysis for Tire Wear Particle Quantification	\$110,000			
ECWG PFAS NMR Analysis in Wastewater, Stormwater, and Bay Matrices	\$400,000			
ECWG Nontarget and Target Analysis of Fibers and Urban Stormwater		\$123,700		Early release of RMP funds requested
ECWG PFAS Analysis Add-On to Stormwater Depth Monitoring Pilot		\$55,000		Early release of RMP funds requested
ECWG Nontarget Analysis Add-On to Stormwater 2025 Monitoring		\$36,000		Early release of RMP funds requested

	EPA FY23/24 (augmenting RMP 25+26)	RMP 25 (\$1,540,171 available for SS)	Covered by forthcoming SEP	Notes
MPWG Strategy		\$30,000		
MPWG Microplastics Stormwater Monitoring Pilot (Year 2 of 2)		\$106,200		Early release of RMP funds requested
MPWG Microplastics in San Francisco Bay Sport Fish			\$130,000	
Nutrients Moored sensor high-frequency observation network	\$250,000			
SedWG Strategy		\$75,000		
SedWG Develop a study plan to improve characterization of bed sediments and settling velocity to advance sediment transport modeling for San Francisco Bay	\$106,900			USGS / Early release of funds requested
SedWG Shoreline Change in San Francisco Bay	\$100,000			
SedWG Suspended Sediment Flux Measurements at Richmond-San Rafael Bridge, California		\$15,000		
SedWG Refining the Conceptual Understanding of Sediment Transport in San Pablo Bay and Suisun Bay			\$125,200	
SedWG Sediment Dynamics in a Fluvially Influenced Salt Marsh			\$121,500	

	EPA FY23/24 (augmenting RMP 25+26)	RMP 25 (\$1,540,171 available for SS)	Covered by forthcoming SEP	Notes
SPLWG Strategy		\$75,000		
SPLWG Integrated Monitoring and Modeling to Support PCBs and Mercury Watershed Loads Uncertainties Assessment and Monitoring Design (Year 2 of 3)	\$110,000			
SPLWG Tidal Area Remote Sampler Pilot - Year 3		\$15,000		
SPLWG Stormwater CECs Modeling and Data Analysis	\$39,000			
SPLWG GIS Improvements to Support Modeling, Data Interpretation, and Site Selection	\$40,000			
SPLWG Stormwater Systems Management and Equipment Upgrades		\$80,000		Early release of RMP funds requested
SPLWG Develop Discharge Rating Curves at County-Operated Stage Monitoring Stations	\$30,000			
SPLWG Add-on to Stormwater Contaminants of Emerging Concern (CECs) Monitoring and Modeling 2025 Project to Include Additional Non-CECs Analytes		\$50,000		Early release of RMP funds requested
PCBWG Strategy	<mark>\$20,000</mark>	\$20,000		
PCBWG San Leandro Bay OPTICS Study		\$85,300	\$664,700	Early release of RMP funds requested
PCBWG Mapping Mudflat Morphodynamics	\$25,000			
PCBWG Sediment Trap Reconnaissance	\$22,000			



8. Decision: Proposals for Funding fromUndesignated Funds(30 minutes)

Desired outcome:

• Decision on funding of proposals 1 and 2

Recap

In an email request sent June 18 to the Steering Committee three proposals that were considered time-sensitive were presented for consideration. One was approved and it was decided that the other two required further discussion.

- Revised WDM Phase 3 project plan and budget Approved for funding via email on 6/28/2024 - memo including revised budget and timeline in agenda package
 - Note corrected budget amount
- 2. Land feature datasets for modeling CECs \$20K
- 3. Tire wear emissions and wash off estimates journal paper \$19K

Land feature datasets for modeling CECs

- \$20K
- Access to new commercial geospatial datasets will enable RMP staff to evaluate land features to support our CEC modeling work
- Example land features: solar panels, roofing materials
- Explore a range of potential datasets, conduct a simple evaluation of a sample dataset (if available), and contact potential vendors
- Also needed to compare to SFEI's own promising efforts to generate land feature information from satellite imagery and machine learning object recognition
- Time sensitivity: Needed now to support ongoing development of CECs modeling workplan

Tire wear emissions and wash off journal paper

- \$19K
- Would turn a RMP report from 2023 into a journal paper
- Sharing in the form of a journal paper would make it more widely used and could improve study design and data interpretation by others, thus improving the information available to the RMP
- Collaboration with RMP Science Advisor Dr. Barbara Beckingham (College of Charleston)
- Includes a journal open access fee (estimated at \$4,000)
- Time sensitivity: report was published in 2023





Reconvene at 1:15



9. Discussion: RMP/USEPA Budget and Workplan Development (30 minutes)

Desired outcomes:

- Informed Committee
- Guidance on proposed RMP/USEPA workplan and budget

SC/TRC supergroup (Tom, Chris, Luisa, Dana, Richard, Eric) met on July 30 to review proposed RMP planning for first allotment of USEPA San Francisco Bay Program funds

Supergroup recommendations included:

- Increase PCBWG strategy funds for PCB TMDL studies planning
- Agreed to \$50k for community engagement, requested to engage with South Bay groups
- Look to increase S&T wet weather monitoring after review of pilot study
- Agreed to funds in 2025 & 2026 for CECs methods investigations (method development, interlab comparisons)

In progress:

- Drafting workplan and budget for submission by 8/30
 - New guidance from EPA is to draft the workplan and budget for the total amount (\$23.5M) to be requested over the life of the grant

The RMP Funding Request

General RMP Request

5-Year General RMP Total	\$18M	
RMP29	\$4M	
RMP28	\$4M	
RMP27	\$4M	
RMP26	\$4M	
RMP25	\$2M	

\$6M "Phase 1" request from EPA FY24

Additional Items

Fixed-station Network	\$1M
PCB TMDL Studies	\$2M
Watershed Modeling	\$2.5M



Overall 5-Year Total Request: \$23.5M

Program Management and... RMP Years 25/26 \$2,356,000

Program Management - funds for staffing hiring, onboarding and training.

Governance - more meetings, more planning, more preparation

QA and Data Services - development of a data dashboard

Communications - eUpdates, social media, website design upgrades, more products, more design, engaging with disadvantaged communities to inform RMP planning

Program Management	A. Budget and Workplan Development	\$78,000
	B. Contract and Financial Management	\$190,000
	C. Technical Oversight	\$118,500
	D. Internal Coordination	\$260,000
	E. External Coordination	\$61,500
	F. Administration	\$50,000
Governance	A. SC Meetings	\$58,000
	B. TRC Meetings	\$58,000
	C. WG Meetings	\$132,000
	D. External Science Advisors	\$62,000
	E. ECWG	\$114,000
	F. MPWG	\$29,000
	G. PCBWG	\$47,500
	H. SedWG	\$88,000
	I. SPLWG	\$98,000
QA and Data Services	A. Quality Assurance System	\$82,000
	B. Online Data Access: CD3	\$115,500
	C. Database Maintenance	\$15,000
	D. Updates to SOPs and Templates	\$70,500
	E. DMMO Database Support	\$140,000
Annual Reporting	A. RMP Update/Pulse Report	\$40,000
	B. Annual Meeting	\$47,500
Communications	A. Communications Plan Implementation	\$82,500
	B. Stakeholder Engagement	\$45,000
	C. Responses to Information Requests	\$36,000
	D. Outreach Products	\$62,500
	E. Presentations at Meetings and Conferences	\$80,000
	F. RMP Website Maintenance	\$45,000
	G. Community Engagement	\$50,000

Status & Trends RMP Years 25/26 \$1,511,000

Status & Trends		
2025 and 2026	Community fish sampling	\$100,000
	Dry Season Water 25	\$60,000
	NTA 25	\$415,000
	Aquatic tox 25	\$21,000
	CTR 25	\$88,000
	Water 25 data management	\$90,000
	CTR 25 reporting	\$25,000
	North Bay Se 26	\$165,000
	Wet season water pilot report	\$80,000
	Wet season water 26	\$182,000
	Wet season water 24 data management	\$20,000
	Bird Eggs 24/25	\$40,000
	Bird Egg Reporting 26	\$25,000
	CECs Methods / Lab Intercomp 25	\$100,000
	CECs Methods / Lab Intercomp 26	\$100,000

Special Studies & "Other" RMP 2025 only \$1,511,000

Other	
Fixed Station Monitoring Network	\$150,000
WDM Model Maintenance	\$100,000

Special Studies 2025	Plastic Additives in Bay Water and Archived Sediment	\$250,000
	Quarternary Ammonium Compounds (QACs) in Bay Water and Stormwater	\$200,000
	Nontarget Analysis of San Francisco Bay Fish (Year 2)	\$76,000
	Tire Rubber Marker Analysis for Tire Wear Particle Quantification	\$110,000
	PFAS NMR Analysis in Wastewater, Stormwater, and Bay Matrices	\$400,000
	Moored sensor high-frequency observation network	\$250,000
	Develop a study plan to improve characterization of bed sediments and settling velocity to advance sediment transport modeling for San Francisco Bay	\$106,900
	Shoreline Change in San Francisco Bay	\$100,000
	Integrated Monitoring and Modeling to Support PCBs and Mercury Watershed Loads Uncertainties Assessment and Monitoring Design (Year 2 of 3)	\$110,000
	Stormwater CECs Modeling and Data Analysis	\$39,000
	GIS Improvements to Support Modeling, Data Interpretation, and Site Selection	\$40,000
	Develop Discharge Rating Curves at County-Operated Stage Monitoring Stations	\$30,000
	Mapping Mudflat Morphodynamics	\$25,000
	Sediment Trap Reconnaissance	\$22,000
	Fixed Station Monitoring Network	\$150,000
	WDM Model Maintenance	\$100,000
	PCB Strategy	\$20,000



Multi-Year Planning Workshop Agenda (45 minutes)

Desired outcomes:

• Priority agenda items for MYP Workshop



RMP Multi-Year Planning Workshop and Steering Committee Meeting

November 1, 2023 9:00 AM – 3:30 PM

Hybrid Meeting

SFEI 4911 Central Ave, Richmond, CA

Remote Access

https://us06web.zoom.us/i/92590225613 Meeting ID: 925 9022 5613 Dial by your location +1 669 900 6833 US (San Jose)

AGENDA

	MULTI-YEAR PLANNING WORKSHOP	
1.	Introductions and Goals for the Meeting Meeting goals: Review Program priorities Identify RMP priority information needs for 2024-2026 Review process for updating the MYP and workgroup strategies Discuss Status & Trends ongoing design tweaks Discuss 2024 workgroups and special study funding based on Program priorities Recognize new participants on the committees	9:00 (15 min) Tom Mumley
	Recognize new participants on the commutees	
2.	Discussion: Setting the Stage - Planning for 2024 and Beyond The RMP Manager will set the stage for discussions during the Workshop by providing an overview of major developments in the Program: e.g., S&T changes, WQIF proposals, special study highlights, and WG strategy updates. Other topics to touch on include: San Francisco Bay Program fund S&T timeline - 2025 decision point after three years of pilot work Event-based monitoring - a priority for planning in 2024	9:15 (20 min) Amy Kleckner
	Materials: None	
	Desired outcomes:	

	Informed Committee	
3.	Discussion: Information Priorities for 2024-2026 The group will review the management decision table in the Draft Multi-Year Plan and highlight information priorities for 2024-2026. To prepare for this discussion, the list of relevant upcoming management decisions in the Draft Multi-Year Plan (page 6) should be reviewed. Materials: Draft 2024 Multi-Year Plan, Sent Separately Desired outcomes: • Consensus on priority information needs for 2024-2026	9:35 (20 min) Tom Mumley
4.	Discussion: Status & Trends and Other Items Implementation of the updated Status & Trends monitoring design continued in 2023. Budget implications of S&T implementation will be discussed. In addition, the group will discuss other potential budget items, including model maintenance, stormwater monitoring, equipment maintenance, and event-based monitoring. Materials: S&T monitoring calendar, pages 7-10 Desired outcomes: • Discussion of these other items that will impact the budget	9:55 (30 min) Amy Kleckner
	Break	10:25 (10 min)
5.	Discussion: Multi-Year Plan and Workgroup Strategy Updates Update on workgroup progress in updating their management questions and strategies. The group will provide feedback on priorities for studies and funding level for workgroups. Materials: Draft 2024 Multi-Year Plan, Sent Separately Desired outcomes: Provide guidance on priorities and funding levels for workgroups Provide feedback on the Draft MYP	10:35 (60 min) Jay Davis
6.	Discussion: Workgroup Scheduling and Agendas Discuss plans for workgroup meetings in 2024 and ways to facilitate cross-workgroup coordination. Materials: None Desired outcomes: • Input on workgroup agendas and coordination	11:35 (15 min) Jay Davis

Key items for 2025/26: More...

- Funding: \$8 million per year in 2026 and beyond
- Staffing and infrastructure
- Workgroup activity
- Special studies
- S&T
- Special boosts: PCBs, watershed modeling, stormwater monitoring

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 Revie Revie Disce 	ls: ew Program priorities ify RMP priority information needs for 2024-2026 ew process for updating the MYP and workgroup strategies uss Status & Trends ongoing design tweaks	(15 min) Tom Mumley
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Next Steps

- Form subcommittee to plan Workshop? Volunteers?
- Meetings with stakeholder groups think harder about your information needs!



11. Discussion: Communications (30 minutes)

Desired outcomes:

- Update on the Pulse
- Decision on agenda for the Annual Meeting

Pulse 2024

- Theme: CECs
- Similar to the 2013 Pulse
- An updated go-to guide on CECs in the Bay





Articles

- Water Board
- DTSC

Sidebars

- Tiered Risk-Based Framework
- (EPA and PFAS: Sources to Solutions)
- (DPR and pesticides)
- (State Board CEC Strategy)
- (Essential Use Approach)

IN SAN FRANCISCO BAY

oducts Regulations /astewater

ation Sites of Pesticides to Bay Products 1 Europe

isures Contaminants in Calif

Status of Pollutants of Con

Contaminants

- PCBs
- Hg
- Se
- Cu
- Bacteria

8 LATEST MONITORING RESULTS

26 Nutrients 28 Mercury 31 Selenium

32 PCBs 34 PAHs 36 PBDEs

- 38 WATER QUALITY TRENDS AT A GLANCE
 - 38 Toxics and Bacteria 39 Chlorophyll and Dissolved Oxyg
 - 40 Nutrients and Sediment 41 Flows and Loads

42 Human Presence 43 Climate and Habitat

44 Populations 45 Graph Details

6 CEC MONITORING

48 MONITORING CONTAMINANTS OF EN CONCERN IN SAN FRANCISCO BAY

51 The RMP Emerging Contaminants Workgroup

54 A GUIDE TO CECs IN THE BAY

Guide to CECs

- PFAS
- Organophosphate Esters
- 6PPDQ
- Bisphenols
- Carbendazim
- Fipronil and Imidacloprid
- Microplastics
- Ethoxylated Surfactants
- PBDEs
- PPCPs
- QACs
- Alternative Flame Retardants

Article

• Summary of RMP CEC Strategy

Sidebars

• (Challenges of analytical methods)



Annual Meeting Early Draft Agenda

• General

- RMP Highlights (EPA funding, ...)
- CECs Block 1: ECWG advisor perspectives
 - Derek Muir
 - Bill Arnold: QACs in wastewater
 - Third advisor
- CECs Block 2
 - CEC strategy revision
 - Ethoxylated surfactants?
 - PFAS Sources to Solutions project intro
- PCBs +
 - In-Bay modeling
 - Pedro's watershed modeling
- Sediment
 - Sediment talk
- Nutrients
 - NMS highlights (NMS "Pulse", ...)
- SPL
 - SPL talk
- Microplastic
 - MP talk

2023 RMP ANNUAL MEETING AGENDA

October 12, 2023; 9:00AM – 4:00PM Hybrid meeting: Register to obtain information

	Hybrid meeting. <u>Register</u> to obtain mormation	
	Welcome and Introduction	
9:00	Welcome and Introduction	
	- Tom Mumley, San Francisco Bay Water Board, RMP Steering Committee Chair	
	Session 1: General RMP Highlights	
9:10	Introduction - Karin North, City of Palo Alto	
9:15	Reflections on 30+ Years of Regional Monitoring	
	- Tom Mumley, San Francisco Bay Water Board	
9:45	RMP Highlights	
	- Amy Kleckner, RMP Manager, San Francisco Estuary Institute	
10:10	Discussion - Moderated by Karin North, City of Palo Alto	
10:35	BREAK (20 minutes)	
	Session 2: Nutrients and Sediment	
10:55	Introduction - Ian Wren, Baykeeper	
11.00	Harmful Algal Bloom Update	
11.00	- Dave Senn, San Francisco Estuary Institute	
11.20	Dissolved Oxygen Studies	
11.20	- Ariella Chelsky, San Francisco Estuary Institute	
11.40	Sediment Loads from Creeks in Drought and Flood Years	
11.40	- Alicia Gilbreath, San Francisco Estuary Institute	
12:00	Discussion - Moderated by Ian Wren, Baykeeper	
12:20	LUNCH BREAK (60 minutes)	
	Session 3: PFAS	
1:20	Introduction - Maggie Monahan, San Francisco Bay Water Board	
1.25	PFAS in Bay Fish	
1.25	- Jay Davis and Miguel Mendez, San Francisco Estuary Institute	
	Investigation of PFAS Sources to Municipal Wastewater	
1:45	- Diana Lin, San Francisco Estuary Institute and Lorien Fono, Bay Area Clean Water	
	Agencies	
	Cosmetics Contribute to the PFAS Load at Wastewater Treatment Plants in	
2:05	California	
2.25	- Simona Balan, California Department of Toxic Substances Control	
2:25	Discussion - Moderated by Maggie Monahan, San Francisco Bay Water Board	
2:45	BREAK (20 minutes)	
2.05	Session 4: Contaminants of Emerging Concern in Stormwater	
3:05	Introduction - Chris Sommers, EOA, Inc.	
3:10	CECs in Stormwater	
	- <i>Rebecca Sutton, San Francisco Estuary Institute</i>	
3:30	CECS from 1 fres	
	- Ezra Miller, San Francisco Estuary Institute	
3:50	Les La des California Denantment of Taxia Substances Control	
	- Jen Jackson, Caujornia Depariment of Toxic Substances Control	
4:10	Discussion - Moderated by Chris Sommers, EOA, Inc.	
4:30	Adjourn	

Annual Meeting Draft Agenda

- Block 1: CECs
 - Derek Muir (confirmed)
 - Dan Villeneuve: CEC toxicity (probable)
 - CEC strategy revision: Becky
- Block 2: CECs
 - PFAS Update: Sources to Solutions, etc.: Kelly
 - Ethoxylated surfactants: Jennifer Dougherty
 - QACs in wastewater: Ezra or Miguel
- Block 3: CECs/Microplastics
 - DTSC Update: Anne-Cooper Dougherty
 - Water Board Update?
 - MP Strategy: Diana
- Block 4: General/PCBs +
 - RMP Highlights (EPA funding, the Pulse...): Amy
 - Watershed modeling: Pedro, Matt, or Steve Carter
 - In-Bay modeling: Craig Jones
- Other possibilities
 - Sediment?
 - Nutrients?
 - SPL?

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2.20	CECs from Tires		
5:30	- Ezra Miller, San Francisco Estuary Institute		
2.50	DTSC Actions on CECs and Microplastics		
5.50	- Jen Jackson, California Department of Toxic Substances Control		
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Other Details

- MC
- Moderators



12. Information: Status of Deliverables and Action Items (15 minutes)

Desired outcomes:

- Informed committee
- Feedback on progress and due dates

Deliverables - completed!

- All 2024 Workgroup Meetings
- Successful collection of 2024 S&T Bird Egg Samples
- Action Item: Council of Wisdom meeting to discuss event based monitoring (5/13/24)
- WDM Phase 3 Model data collation and preparation
- 2024 Interlab Comparison Study Design
- Continuous Suspended Sediment Monitoring in South and Lower
 South San Francisco Bay Technical Report SFEI Cont #1188
- Sport Fish SAP

Deliverables – Overdue...

• MTC Bay area land use update (SEP)

Deliverables – delayed

- NB Se in clams and water report (2021-2023)
- Impact of Remediation Actions on SLB from PCB contamination - Final Technical Report
- PCBs in sediment and fish SS/RC Final Technical Report
- Non targeted data mining spreadsheet

Deliverables – due before next SC meeting (11/4)

- Final Margins Report
- QACs in wastewater (SEP) Technical Memo
- Sediment Deposition on SB Marsh (Whales Tail) report
- RWSM updated model and technical report
- Annual Meeting
- 2024 Pulse



13. Discussion: Plan Agenda Items for Future Meetings (5 minutes)

Desired outcome:

• Identify future agenda items, including science updates



14. Discussion: Plus/Delta (5 minutes)



Thank you!