REGIONAL MONITORING PROGRAM FOR WATER QUALITY IN SAN FRANCISCO BAY

sfei.org/rmp

RMP Steering Committee Meeting

August 12, 2024
9:00 AM – 3:25 PM

HYBRID MEETING
In-person: First floor conference room at SFEI
Remote Access: https://us06web.zoom.us/j/92590225613
Meeting ID: 925 9022 5613
Dial-in: +1 669 900 6833

AGENDA

1.	**Introductions and Review Goals for the Meeting**	9:00 (10 min) Tom Mumley
2.	**Decision: Approve Meeting Summary from SC Meeting on April 15, 2024; Confirm Dates for Future Meetings** Scheduled SC meetings: November 4, 2024 (+ MYP Workshop), January 2025 TBD Scheduled TRC meetings: September 24, December 12, 2024. 2024 Annual Meeting: October 16 Materials: SC Meeting Summary, pages 6-21 Desired outcomes: ● Approve meeting summary ● Confirm future SC meeting and Annual Meeting dates	9:10 (10 min) Tom Mumley
3.	**Information: TRC Meeting Summary from June 13, 2024** Topics discussed at the most recent TRC meeting included: ● USEPA SF Bay Program Office Funds ● 2025 Special Studies Proposals ● S&T Update ● Plus/Delta on Workgroup Meetings Materials: TRC Meeting Summary, pages 22-34	9:20 (10 min) Amy Kleckner

	Desired outcome: ● Informed committee	
4.	**Decision: SC Chair and Vice-Chair Plan, RMP Charter Amendments** 1) As Tom Mumley moves into retirement, there is a need to discuss his role on the Steering Committee and modify the Charter accordingly. 2) Decide on including a seat on the Steering Committee for a USEPA representative given the substantial USEPA funding coming to the RMP. 3) Chair and Vice-Chair plan Materials: Slides presented at the meeting. Desired outcome: ● Decisions on proposed Charter amendments.	9:30 (30 min) Jay Davis
5.	**Information: RMP Financial Update for 2024 Quarter 2** The RMP Financial Update summarizes the balance of budgeted and reserved RMP funds as well as its cash position. Materials: Financial Update Memo, pages 35-59, Slides presented at the meeting Desired outcome: ● Informed Committee	10:00 (15 min) Beth Birmingham Amy Kleckner
6.	**Discussion: Update on Fee Schedules and the MOU** 1) RMP fees are approved in 3-year increments. The most recent approval was for 2023-2025. Fee options for 2026-2028 will be discussed and fees will be set at the November SC meeting. 2) The dredger fee schedule is reviewed every 3 years. The most recent approval was for 2022-2024. Discussions on the next fee schedule have begun and fees will be set at the November SC meeting. 3) The MOU between SFEI and the Water Board for administering the RMP is amended every two years. The most recent amendment was for 2023-2024. The next amendment will be issued in fall 2024. Materials: Slides presented at meeting Desired outcome: ● Initial discussion of RMP fees for 2026-2028	10:15 (30 min) Amy Kleckner Jay Davis

7.	**Decision: Approve Special Studies for 2025 and List of Eligible Studies for SEP Funding** Between April and June 2024, workgroups met to develop proposals for special studies in 2025. On June 13, 2024, the TRC reviewed all the proposals put forward by the workgroups and recommended a suite of studies for 2025. The Steering Committee will review the recommended studies, make any adjustments they deem warranted, and then approve the special studies for 2025. Funding from core RMP fees and AMR fees will be decided during this item. Some proposals have requested early release of funds. In addition, the RMP maintains a list of projects that have been vetted by Workgroups and/or the TRC but were not previously funded. This list of projects is a resource to the Water Board as they negotiate Supplemental Environmental Projects. Materials: Special Study summary tables with TRC recommendations, pages 59-61 (full proposals can be found in the June TRC Agenda package and current SEP list, pages 62-64 Desired outcomes: ● Approved list of special studies to be funded in 2025 and updated SEP list ● Approval of early release of funds for selected proposals	10:45 (1 hour) Jay Davis Amy Kleckner
8.	**Decision: Proposals for Funding from Undesignated Funds** In an email request sent June 18th to the Steering Committee three proposals were presented for consideration. One was approved and it was decided that the other two required further discussion. The three proposals are: 1. Tire wear emissions and wash off estimates journal paper 2. Land feature datasets for modeling CECs 3. Revised WDM Phase 3 project plan and budget - Approved for funding via email on 6/28/2024 Materials: Proposals 1 and 2 summaries, pages 65-67; Proposal 3 approval memo pages 68-71 Desired outcome: ● Decision on funding proposals 1 and 2.	11:45 (30 min) Jay Davis Kelly Moran
	LUNCH	12:15 (1 hour)

9.	**Discussion: RMP/USEPA Budget and Workplan Development** Discuss how the expected USEPA San Francisco Bay Program FY23/24 funds will be used to expand program management tasks, S&T monitoring, and special studies. Materials: Slides presented at meeting Desired outcomes: ● Informed Committee ● Guidance on proposed RMP/USEPA workplan and budget	1:15 (30 min) Jay Davis Amy Kleckner
10.	**Discussion: Multi-Year Planning Workshop Agenda** The Multi-Year Planning (MYP) Workshop is an opportunity for Steering Committee members and Technical Review Committee members to discuss the priorities for the RMP in the upcoming 3-5 years. In this agenda item, the SC will discuss how to structure the agenda for the MYP Workshop and consider forming a subcommittee to do further planning. Materials: Slides presented at meeting Desired outcome: ● Priority agenda items for MYP Workshop	1:45 (45 min) Jay Davis Tom Mumley
11.	**Discussion: Communications** Finalize speakers for RMP Annual Meeting; update on timeline for the Pulse. Materials: Slides presented at the meeting Desired outcome: ● Decision on speakers for the Annual Meeting	2:30 (30 min) Jay Davis
12.	**Information: Status of RMP Deliverables and Action Items** Materials: Action Items & Deliverables reports and summary slides, pages 72-82 Desired outcomes: ● Informed Committee ● Feedback on progress and due dates	3:00 (15 min) Amy Kleckner
13.	**Discussion: Plan Agenda Items for Future Meetings** Desired outcome: ● Identify future agenda items, including science updates	3:15 (5 min) Tom Mumley

14.	**Discussion: Plus/Delta**	3:20 (5 min) Tom Mumley
	Adjourn	**3:25**

Recently Completed RMP Reports/Products

Paterson, K.; Miller, E.; Lin, D. 2024. **Microplastics Monitoring and Science Strategy for San Francisco Bay 2024 Revision**. SFEI Contribution No. 1144. San Francisco Estuary Institute: Richmond, CA.

Bay RMP Steering Committee Meeting

April 15, 2024

San Francisco Estuary Institute

Meeting Summary

Attendees

SC Member	Affiliation	Representing	Present
Eric Dunlavey	City of San Jose	POTW-Large	**Y**
Amanda Roa	Delta Diablo	POTW-Small	**Y**
Karin North**	City of Palo Alto	POTW-Medium	**Y**
Adam Olivieri	BAMSC / EOA, Inc.	Stormwater	**Y**
Cameron Carr	Bay Planning Coalition	Dredgers	**Y**
Ellie Covington	US Army Corps of Engineers	USACE	**N**
Tom Mumley*	SF Bay Regional WQCB	Water Board	**Y**
Maureen Dunn	Chevron	Refineries	**Y**

* Chair, ** Vice Chair, alternates in gray and italicized

Staff and Others:

- Jay Davis, SFEI
- Amy Kleckner, SFEI
- Martin Trinh, SFEI
- Beth Birmingham, SFEI
- Luisa Valiela, EPA
- Matt Heberger, SFEI
- Xavier Fernandez, SFBRWQCB

1. Introductions and Review Goals for the Meeting (00:02:30)

Tom Mumley began the meeting with a brief round of introductions, giving a special welcome to Cameron Carr who is attending as an interim representative for Bay Planning Coalition. He then reviewed the day's agenda. Key agenda items included presentations on the USEPA San Francisco Bay Program Office funds, introducing SFEI's new watershed modeler, workgroup planning updates, Status & Trends (S&T) updates, and the upcoming 2024 RMP Pulse.

2. Summary from SC Meeting on January 22, 2024; Confirm Dates for Future Meetings (00:03:50)

Tom Mumley asked the group for any final comments on the previous meeting's summary. Receiving no comments, he continued to confirm the dates for upcoming meetings. The SC meeting was confirmed for August 12, 2024, and the proposed date for the Multi-Year Planning (MYP) Workshop/SC meeting was approved for November 4, 2024. The Technical Review Committee (TRC) will meet on June 13, 2024, September 24, 2024, and December 12, 2024. The RMP Annual Meeting has been confirmed for October 16, 2024.

Action Item:

- Send out calendar invitations for the November 4, 2024 SC meeting (Martin Trinh, May 1, 2024)

Decision:

- Eric Dunlavey motioned to approve the meeting summary. Adam Oliveri seconded the motion. The motion was carried by all present members.

3. Information: TRC Meeting Summary from March 26, 2024 (00:05:20)

The March 26th TRC meeting began with the usual agenda items. Following these items, Alicia Gilbreath presented an update on this year's wet season sampling efforts. Alicia emphasized the growth and diversification of project goals in recent years, including expanded pollutant monitoring, piloting of remote samplers in previously inaccessible areas, bioretention monitoring, and near-field S&T sampling. She reported on the progress on current manual sampling, and deployment of remote samplers at multiple locations and sampling events. She discussed the challenges faced this year related to obtaining permits for stormwater sampling efforts. With the efforts to obtain permits being time consuming and often costly, Alicia also emphasized the variability in permit issuance, noting that about ⅓ of municipalities readily approved permits while

others were requiring extensive time and effort to obtain. She shared some of the lessons learned this year during the piloting of the remote samplers. Alicia also highlighted the recent blank test of vacuum samplers meant to address tubing contamination issues and the discussion raised concerns about the practical implementation of vacuum samplers. The TRC acknowledged that the technical and logistical challenges discussed need to be further addressed.

The next agenda item was an update on S&T monitoring. Amy began with an update on the wet season water sampling pilot study which is in its third and final year. All wet season samples have been collected and we now only need to collect once during the dry season to complete the three-year pilot study of the new water design. Changes were made to bird egg sample processing for this year. In an effort to streamline the delivery of the bird eggs to the labs, the RMP has asked Moss Landing to do the post-collection processing, compositing, and aliquoting instead of SGS AXYS this time around. This will result in the eggs only crossing the international border once instead of twice and potentially eliminate some of the permitting and shipping issues that held up the process last time. In addition, the eggs will be shipped through an AXYS facility in WA where there has been better success with keeping samples temperature-controlled during shipping. However, MLML could not fit the effort in until April 2025. Sport fish monitoring is well into the planning stages. ICF will handle the sampling and this year's effort will include a focus on PFAS monitoring and coordination with the SWAMP Realignment. 2024 is year two of a two-year pilot study on marine mammals and is currently underway. The Marine Mammal center is once again handling sample collection and the aim is to sample 10 harbor porpoises and 10 harbor seals. Amy also introduced details of a non-RMP study ("Selenium Impacts on Aquatic Life") which involves the sampling of water and fish from Carquinez Strait for selenium.

In the next agenda item, the TRC was introduced to SFEIs new watershed modeler who will also be introduced today.

Next Jay presented information on workgroup planning efforts, which began with an update on the potential significant funding from the EPA San Francisco Bay Program Office. He then turned it over to the workgroup leads who summarized the proposals they are planning to present to their workgroups. Afterwards Jay emphasized the need for coordination between all the workgroups to ensure alignment and avoid duplication of efforts.

The next agenda item focused on future Status and Trends monitoring and how the potential future EPA funding might be utilized there as well. This is something the SC will also be discussing in this meeting today.

Don Yee then provided a summary of the results of the 2023 Interlaboratory Comparison Study. The purpose of the study was to assess the agreement among different labs conducting PFAS analysis in water. The three labs compared were SGS AXYS, Enthalpy, and Eurofins. Overall the labs demonstrated consistency, with results generally within ~30% of each other. Discussions then turned to upcoming intercomparison studies with particular focus on tissue testing and leveraging this year's S&T monitoring efforts.

Martin Trinh then shared the results of the 2021 Cu and CN rolling averages update. The results showed that the levels of copper and CN remained below trigger levels. Those results are posted and can be found on the website. We plan to have the 2023 rolling averages updated by the end of the year.

Jay gave an update on Communications starting with highlighting the upcoming 2024 Pulse and then moving on to discussing plans for the RMP Annual Meeting which will also be discussed here today. The meeting participants discussed potential speakers, structure of the sessions, and strategies for promoting the Meeting and ensuring effective communications with attendees with the goal of maximizing attendance and engagement.

4. Information: RMP Financial Update for 2024 Quarter 1 (00:17:45)

Beth Birmingham provided the regular financial update for Q1 of 2024. For 2024, 11% of funds have been expended on the year, with invoices being sent out soon. There is a surplus of $56. The 2023 budget has been 70% expended, with 99% of invoiced fees collected. Only two invoices remain. There was a surplus of $98k due to $118,250 in SEP funds supporting part of task 45 Sediment Delivery to Marshes in Central and North Bays. The 2022 budget has been 87% expended, with 100% of invoiced fees collected. There is a surplus of $18k that has been reduced from $138k in the previous quarter after funding for various projects was approved by the SC. For 2021, 87% of funds have been expended with 100% of invoiced fees collected. There is a surplus of $3.5K. For 2020, 94% of the budget has been expended and 100% of fees have been collected. For years 2019 and 2018, 95% and 98% of the budgets have been expended respectively and all fees collected. The RMP is ready to unencumber 2018. Beth paused to address any questions and received a request to explain why they kept books open for many years. She explained that ongoing projects spanning multiple years necessitated keeping the books open until all projects were completed and expenses paid, allowing for clean transitions of funds into reserves. Amy added that

contracts with subcontractors also influenced the decision to keep books open, as they preferred not to create new contracts every year.

The RMP requested that a total of $60,731 will be unencumbered from the 2018 budget and added to the undesignated funds. This amount consists of a $61,149 surplus from closed programmatic and S&T tasks and a $418 deficit from closed Special Studies Tasks. Beth reported no changes to the Undesignated Funds Balance since the November meeting. Beth noted the Q1 LAIF interest rates for 2024 have not been posted. She then reviewed additional funds managed, including undesignated, designated, and set-aside funds, highlighting the balance and allocation status. Jay elaborated on the funding process, explaining the ups and downs in the fund contributions due to the status and trend program's monitoring schedule. Tom discussed the accumulation of funds from mandatory minimum penalties for wastewater permit violations, which could augment the budget for special projects. To conclude the item, Beth shared that by the end of April 2024; there will be $179,289 in unallocated SEP funds, of which $19.5k remaining to be received.

Decision:

- Karin North motioned to approve the request for unencumbered for the 2018 budget. Amanda Roa seconded the motion. The motion was carried by all present members.

5. Information: Introducing Our New Watershed Modeler (00:32:55)

Jay introduced Matt Heberger as the new watershed modeler, replacing Tan Zi. Notably, Matt had previously served as the program manager for the Delta RMP and exhibits a fervent dedication to watershed modeling, akin to Alicia's passion for monitoring. Jay noted that they will make an excellent team. Matt shared that he is currently in Paris following the completion of his PhD but anticipated returning to Richmond in August. Matt provided an overview of his academic and professional background, starting with his degrees in agricultural and biological engineering and civil and environmental engineering, culminating in a recent PhD in Earth sciences from Sorbonne University in Paris. He elaborated on his MS thesis research focused on watershed loading models for bacteria in the Mystic River, Massachusetts, emphasizing the importance of predicting bacteria levels to preempt beach closures. Transitioning to his consulting experience at CDM Smith in Cambridge, Massachusetts, he detailed his work on hydrology and hydraulics projects, notably on the Merrimac River, addressing various water quality challenges. Subsequently, he shared his tenure at the Pacific

Institute in Oakland, where he delved into diverse water issues, including sea-level rise, groundwater, and desalination.

Matt's presentation then covered his global experiences, including his time at the Paris Observatory, where he engaged in earth observation using remote sensing data to study the water cycle. He provided a description of his PhD research, focusing on optimizing water cycle estimates globally using optimization methods and machine learning. Additionally, he discussed his volunteer work with nonprofits in Mali, West Africa, emphasizing his commitment to public health and education. Transitioning to his love for open science and open-source software, Matt shared his GitHub page and personal website, showcasing his global watershed delineation tool. Finally, he outlined his aspirations for contributing to the Bay RMP, emphasizing his expertise in hydrologic science, watershed modeling, and pollutant loading, along with his background in project management and facilitation.

Jay commended Matt's extensive experience and skills, particularly noting his patience, a valuable trait given his role in the Delta Regional Monitoring Program. Matt expressed his gratitude and eagerness to connect with everyone further.

6. Information: USEPA San Francisco Bay Program Office Funds (00:45:55)

Jay notified the SC that the EPA has introduced a list of 11 priority areas for funding through their new Program Office. This list, which will be updated annually, is still in draft form. However, Jay noted that the list is expected to remain largely unchanged when finalized. Luisa Valiela confirmed that the list is indeed still a draft and is anticipated to be finalized by the end of April, pending the completion of a new process and signature requirements. She noted that only minor wording changes are expected.

Jay emphasized the significance of these 11 funding categories, especially highlighting the inclusion of the RMP (Regional Monitoring Program) and NMS (Nutrient Management Strategy) as critical priorities. Additional notable categories include funding for PCB and PFAS management. Further discussion focused on the importance of the regional consensus that is developed in the RMP in setting priorities for these topics, facilitated by workgroups and RMP governance structure. The RMP can play a pivotal role in helping the EPA allocate funding efficiently.

Jay reviewed discussions from a January meeting where the SC recommended increasing the program's budget by 50% for the next fiscal year. This recommendation

is being actively implemented, with workgroups developing study ideas and planning for this budget increase.

Luisa then explained the immediate need to allocate current fiscal year funds, which must be allocated by the end of September. She mentioned that $5 to $7 million could be available for the RMP. Luisa also noted that the funding level is expected to continue at approximately $54 million annually for fiscal year 2025 and beyond, necessitating strategic planning to utilize these funds effectively.

To secure these funds, the RMP must first obtain an exception memo, justifying the RMP's exemption from the general EPA competitive solicitation process. This memo will outline the rationale and a general list of work areas. Jay will work with Tom and Luisa on finalizing this memo. Once the exception is approved, Step 2 will be the development of a detailed workplan with specific tasks and deliverables by the end of June. The goal is to have the agreement in place by the end of September (Step 3).

Jay also highlighted the importance of addressing environmental justice and climate adaptation in their funding requests, aligning with EPA's priorities. He reassured the SC that the program has sufficient matching funds to meet the required 25% match.

Jay proposed an initial request of $6 million for the next two fiscal years, $2 million in FY24 and $4 million in FY25. The next three years would each request $4 million, bringing the five-year total request to $18 million. Jay emphasized the need for careful planning to avoid overburdening existing staff.

Jay emphasized the importance of enhancing data management and public accessibility to RMP data. He acknowledged current challenges in data accessibility and expressed a commitment to improving this aspect as the RMP expands. Tom noted that the exception memo did not require too much specificity, leaving room for future flexibility. Tom also noted that the RMP could expand its data management program with future funds.

7. Information: Workgroup Planning Updates (01:26:30)

In this item, the RMP’s workgroup leads provided planning updates for their respective workgroups. Workgroup proposals will be prioritized at the June TRC meeting and approved by the SC in August. Jay noted the workgroups had organized the special study proposals into two tiers: Tier 1 for funding from the planned RMP special study pot and Tier 2 for alternate funding sources such as SEPs or the USEPA SF Bay Program Office funds.

Leading off for the Emerging Contaminants Workgroup, Becky Sutton of SFEI discussed Tier 1 proposals. Strategy funding would require $70K while stormwater CEC monitoring will cost $300K. Plastic additives in water would require $173K or $235K if sediment is added. Quaternary ammonium compounds (QACs) in water would cost $106K or $164K if sediment was added. This would be followup work to the draft report just released by Becky and Bill Arnold. Synthetic dyes in sediment, water, wastewater and stormwater is an early outgrowth of the workgroup's data mining exercise where it will look at targeted data and additional priorities. This would be an additional exploration for $171K. Non-target analysis (NTA) of Bay fish would be conducted for a second year for $76K and could be done with a new analytical partner. NTA of fibers in stormwater will look at plastic additives leached from textiles and fibers for $124K. A stormwater in vitro toxicity screening would test a new method developed by the EPA for $26K.

Becky proceeded to review the Tier 2 proposals for the ECWG. Augmented stormwater CECs monitoring aimed to extend previous work in monitoring contaminants of emerging concern (CECs) in stormwater, possibly with additional funding to enhance monitoring efforts for $150K. Becky proposed a PFAS nuclear magnetic resonance (NMR) analysis, utilizing advanced analytical techniques to comprehensively analyze per- and polyfluoroalkyl substances (PFAS) in various matrices such as wastewater, stormwater, and bay samples for $380K. A journal paper on tire wear emissions will collaborate with a European laboratory to assess tire wear based on chemical markers, potentially contributing to the understanding of tire-related pollutants in the environment for $15K. An analysis on tire rubber markers will conduct detailed analyses of tire particles using paralysis gas chromatography-mass spectrometry (GCMS), enhancing the accuracy of tire wear particle measurements in stormwater samples for $105K. Becky proposed a PFAS analysis add-on to stormwater depth monitoring pilot proposed incorporating PFAS analysis into an existing pilot study on stormwater microplastics, aiming to evaluate the impact of different depth sampling on PFAS evaluation that would be $55K. Finally, an analysis on PFAS wet deposition pathways project would involve community groups to collect samples and share data, focusing on assessing PFAS contamination through wet deposition pathways, with particular attention to the importance of rainfall data for exposure assessment. This effort would cost either $185K or $320K. Focusing on rainfall data importance for exposure assessment and would include involvement of community groups to gather samples and share data.

For the Sediment Workgroup, Scott Dusterhoff presented the Tier 1 Proposals, stressing that the dollar amounts were flexible. In Tier 1, Scott proposed three main project ideas in addition to $50K for strategy and coordination. Firstly, the Bay conceptual model, which was completed two years ago, would be updated. The

workgroup would consider whether to update it at the bay scale or sub-embayment scale. This would cost $50K. Secondly, the workgroup would develop a work plan for studies supporting hydrodynamic model calibration, focusing on assessing erodibility and sediment flocculation impacts on settling velocity for $75K. The group also proposed a pilot project for using satellite imagery to determine suspended sediment concentration, aiding in assessing sediment flux in the Bay for $125K. Tier 2 proposals included developing a shoreline change analysis for areas such as San Pablo Bay ($75K), tributary sediment load monitoring ($100K), monitoring flux at key bay cross-sections like the Richmond Bridge ($100K), and continuing flux and deposition monitoring on mudflats and marshes, potentially at new locations ($100K). Additionally, he suggested continuing monitoring at US Army Corps shallow stations and for bathymetric data collection (TBD).

For the Sources, Pathways, and Loadings Workgroup (SPLWG), Alicia Gilbreath presented the team's Tier 1 proposals. In Tier 1, proposals included a strategy and coordination budget aimed at enhancing internal and external coordination for monitoring and modeling needs ($65K). Alicia also presented a tidal area remote sampler project addressing ongoing needs and permit-related expenses ($10K). Lastly, there will be PCB and Mercury monitoring and modeling to support load and trend assessment, focusing on estimating model uncertainties and providing monitoring design recommendations for $167K. Tier 2 proposals included GIS improvements in watershed delineation and land use integration to support modeling, data interpretation and site selection decision-making ($60K-$100K). Another proposal involved full stormwater systems management and equipment upgrades to automate sampling processes and enhance data management for ($60K-$100K). Large storm event contingency funds planning and implementation would cost $175K, while discharge rating curve sampling would be $90K. Loads/trends monitoring at Mallard Island would cost $150-$200K and a trend analysis update for Guadalupe River would be around $60K.

For the Microplastics Workgroup, Diana Lin outlined the Tier 1 proposals, including $20K for strategy funding. The first proposal featured a stormwater pilot study that hoped to continue exploring sampling biases between single-depth and depth-integrated methods for an additional year ($100K). Additionally, the workgroup plans to leverage the 2025 Status and Trends water cruise monitoring to collect smaller microplastic water samples, enhancing previous data by capturing microplastics as small as 10 micrometers, crucial for evaluating toxicity and understanding particle size distribution in ambient water samples. This effort would cost $202K. Transitioning to Tier 2 proposals, Diana presented a study to analyze microplastics in sport fish, utilizing specimens collected during the 2024 status and trends sport fish monitoring ($130K).

Lastly, the tire rubber marker analysis would be conducted in conjunction with the ECWG ($105K).

Jay presented the proposals from the PCB Workgroup. The Tier 1 proposal only covers on strategy and coordination ($10K) as the group already has substantial funding secured for modeling work from Destination Clean Bay and other sources. Tier 2 introduced a proposal driven by the modeling team to gather empirical data supporting modeling efforts in San Leandro Bay, involving the deployment of sensor arrays to track suspended sediment and other parameters, aiming to enhance modeling accuracy. Finally, he shared a cross workgroup proposal on creating a fixed station watershed monitoring network that would span the SPLWG, ECWG, SedWG, and PCBWG.

Jay emphasized the need for coordination between all of the workgroups and other initiatives, particularly the Regional Monitoring Program (RMP), to ensure alignment and avoid duplication of efforts. Additionally, there was mention of potential future data needs dependent on factors like regulatory reviews and adaptation efforts, indicating a dynamic approach to research prioritization. Luisa expressed that a public facing dashboard would be helpful and inquired if this could be implemented on the website. The EPA expects to see investment in data analysis and management and that communicating through the website should be a priority for SFEI. Jay noted that SFEI is currently overhauling the Institute website with Jay working on mapping the last RMP revision to the new format.

8. Discussion: Program Management and Status and Trends 2025 (02:02:30)

Jay and Amy provided updates on RMP program management and S&T 2025 planning. Jay emphasized the need for extensive enhancements across several areas to accommodate the anticipated growth in workload. Internal and external coordination will require increased budgets for new hires and enhanced collaboration between workgroups, external partners, and labs. This expansion will ensure effective project management and coordination as the scope of the RMP widens.

Technical oversight will also require more hours dedicated to internal and external review of deliverables. This step is critical for maintaining the quality and accuracy of the RMP’s outputs. As the RMP grows, contract and financial management will also need additional funding to handle more contracts.

Governance processes must evolve to support the expanding staff's participation in SC, TRC, and workgroup meetings. The RMP needs to increase general WG funds to

facilitate proposal development, literature reviews, and internal coordination within WGs. Additionally, the budget for maintaining and editing the sample archive database must grow from its current $8K to accommodate the increased use of archived samples.

RMP funds must also be allocated for an equipment maintenance budget. This budget will cover the acquisition of new YSIs and the implementation of regularly scheduled calibrations. It will also support the maintenance costs of remote samplers and ISCOs, which need to be fired up and tested every six months. Other essential equipment such as peristaltic pumps, new vacuum pumps for lab and field use, safety harnesses, and CTD replacements will be included in this budget.

SFEI lab improvements are a crucial part of support of the RMP and NMS. These improvements will include expanding and upgrading freezer capacity to meet the increased storage needs of our growing sample volume.

Looking ahead to the S&T 2025 planning, the RMP has identified several key initiatives. The multi-year plan for 2025 includes resuming the selenium project, which had been paused in 2024 to reassess the best way forward. Additionally, non-target analysis in S&T, initially budgeted at $12,000, now requires a significantly larger budget for realistic execution. This method, which involves advanced techniques to identify various substances in water samples, holds great promise for enhancing the RMP’s CEC monitoring capabilities.

There is a push for more extensive environmental justice work, aligning with EPA's emphasis on this area. In the RMP, this can involve additional fish monitoring and expanding the RMP’s community fish collection efforts, particularly in regions like Hunters Point. The RMP also plans to continue wet weather sampling by increasing the number of stations and events sampled. Other potential expansions include more frequent selenium sampling, incorporating more sound-based stations, and enhancing sediment monitoring.

Finally, the RMP aims to improve its reporting and analysis capabilities, support manuscript writing, and upgrade systems for better sample tracking. This includes developing a sites database and modernizing field data collection methods through the use of tablets and phones, thereby reducing reliance on traditional pen and paper.

These strategic enhancements across various facets of program management and monitoring are essential to meet the growing demands and maintain the high standards of our work. As the RMP moves forward, careful planning and allocation of resources will be pivotal in achieving these objectives.

9. Discussion: Communications (02:27:00)

Jay opened discussion to brainstorm ideas for the upcoming RMP Pulse and Annual Meeting. Jay has been working with Becky and her team to begin writing profiles and summaries for the highest priority contaminants, with the process set to commence immediately. He presented an outline of the project highlighting changes from the 2013 edition and new elements to be included.

Jay emphasized the need to identify authors for a management article, particularly seeking collaboration between the Water Board and DTSC. Tom suggested that Maggie from the Water Board and representatives from DTSC could contribute, with an immediate call for potential authors to start drafting. Sidebars accompanying the management article include the tiered risk-based framework, sources to solutions for EPA and PFAS, DPR and pesticides, the state board's CEC strategy, and the essential use approach.

Moving to the Annual Meeting, the focus was on the agenda and key sessions. The highlight of the meeting would be a series of talks by RMP science advisors, focusing on RMP and beyond. These talks aim to leverage the expertise of the world-class advisors involved in the RMP workgroups. Jay sought approval to start lining up speakers, which is a crucial step at this stage.

Other presentations were considered, including general RMP highlights and the significant funding increase for the program. The meeting would maintain a strong focus on CECs, similar to the previous year, with at least two blocks dedicated to this topic. An article summarizing the RMP CEC strategy will also be highlighted at the Annual Meeting. The meeting will feature a block of advisor presentations from the Emerging Contaminants Work Group (ECWG), including speakers like Derek Muir, Bill Arnold discussing QACs in wastewater, and a potential third advisor. Karin recommended Ed Kolodziej, who could present on Next Gen. Rob Budd of DPR and Dan Villanueve, suggested by Becky, are other potential speakers, with Luisa noting the need for more female representation. The CECs discussion will extend to include a second block, covering the CEC Strategy, ethoxylated surfactants (with either Jennifer Dougherty or Diana) and PFAS sources to solutions, for which Jay recommends Kelly. Tom raised the question of whether we can present more than just a proposal, to which Karin suggested discussing the example of the phase-out of PBDEs and the similar transition to moving from detection to management for PFAS.

Additionally, the meeting will cover PCB modeling in the Bay and watershed modeling by Pedro, sediment, and nutrients with highlights from the Nutrient Management Strategy (NMS), SPL, and microplastics.

10. Discussion: Status of RMP Deliverables and Action Items (02:50:50)

Amy reviewed the deliverables and action items with the SC. Amy highlighted the completion of several deliverables, including the 2021 copper and cyanide rolling averages, distribution of participation letters to BACWA and WSPA, and payment of honoraria and gifts to science advisors. She emphasized the completion of S&T wet weather water sampling for the wet season. Despite a team member being on leave, the data services team managed to update the sample data archive database with all the archives and bird eggs collected in 2022. The final deliverable for 2021 Nutrients special study was a technical memo on semi-imposed light extinction estimates for biochemical modeling applications in San Francisco Bay. Amy noted the completion of the 2024 RMP QAPP update, which is now posted on the website, as it facilitated contract negotiations with Destination Clean Bay. The CEC modeling exploration report is also completed. Additionally, the stormwater CECs manuscript has been submitted.

Amy also addressed overdue deliverables, such as the MTC Bay Area land use update, the STLS regional model development, 2020 S&T Design report, and RWSM update and technical report.

Delayed deliverables include the STLS WY21 POC Reconnaissance Monitoring, which required an update of data for the Advanced Data Analysis. This project is waiting on input from BAMSC, Lester has been in contact with Lisa Sabin to discuss next steps. The North Bay Selenium in clams and water report has had all data through 2022/2023 run through DS. Work on the NTA Sediment Data Manuscript and Fact Sheet has slowed, prioritized behind CEC strategy revisions and 2025 ECWG proposal prep. Work on the PFAS in Archived Sport Fish Manuscript has slowed, prioritized behind CEC strategy revisions and 2025 ECWG proposal prep, and the QACs report, delayed until summer 2024.

Deliverables due before the next SC meeting include the Impact of Remediation Actions on San Leandro Bay Recovery from PCB Contamination technical report, which is currently under review with the PCBWG and aiming to be finalized in April. Wastewater partners needed more time on the The QACs in Bay wastewater SEP but the intention is to have the report ready for the ECWG meeting. Don and Data Services are still working on the reanalysis for the Final Margins report. This was prioritized behind the 2023 lab intercomparison results, Bird Egg PFAS QA for ECWG, and the ambient Bay numbers update for the BCDC. With help from Miguel on QA ancillary datasets, the 2021 QA Summary Report for S&T Activities should be completed by June. A draft of the North Bay Selenium in clam and water data report (2019-2020) has been sent for review by the Selenium workgroup, aiming for finalization in April. The

2020 S&T Design Report will be completed without review from Tom Grieb. The Sediment Deposition on SB Marsh (Whales Tail) report will be submitted soon. The Integrated Watershed monitoring and modeling strategy report as well as the PFAS in archived sport fish effort will also be completed before the August meeting.

Action Item:

- Schedule meeting to discuss event based monitoring (Amy Kleckner, May 1, 2024)

11. Discussion: Plan Agenda Items for Future Meetings (02:59:00)

The main items for the August SC meeting include voting on special study funding, planning the agenda for the MYP workshop, fee discussions and Annual Meeting talks. Given the agenda is already full, a technical update from SFEI was deemed optional. The charter will potentially have to be revised given Tom's retirement. Tom suggested an item on dredging community fees

12. Discussion: Plus/Delta (03:06:00)

The group commended Amy and SFEI for hosting the hybrid meeting and keeping on time. Karin particularly appreciated the staff introductions.

Adjourn

About the RMP

RMP ORIGIN AND PURPOSE

In 1992 the San Francisco Bay Regional Water Board passed Resolution No. 92-043 directing the Executive Officer to send a letter to regulated dischargers requiring them to implement a regional multi-media pollutant monitoring program for water quality (RMP) in San Francisco Bay. The Water Board's regulatory authority to require such a program comes from California Water Code Sections 13267, 13383, 13268 and 13385. The Water Board offered to suspend some effluent and local receiving water monitoring requirements for individual discharges to provide cost savings to implement baseline portions of the RMP, although they recognized that additional resources would be necessary. The Resolution also included a provision that the requirement for a RMP be included in discharger permits. The RMP began in 1993, and over ensuing years has been a successful and effective partnership of regulatory agencies and the regulated community.

The goal of the RMP is to collect data and communicate information about water quality in San Francisco Bay in support of management decisions.

This goal is achieved through a cooperative effort of a wide range of regulators, dischargers, scientists, and environmental advocates. This collaboration has fostered the development of a multifaceted, sophisticated, and efficient program that has demonstrated the capacity for considerable adaptation in response to changing management priorities and advances in scientific understanding.

RMP PLANNING

This collaboration and adaptation is achieved through the participation of stakeholders and scientists in frequent committee and workgroup meetings (see Organizational Chart, next page).

The annual planning cycle begins with a workshop in October in which the Steering Committee articulates general priorities among the information needs on water quality topics of concern. In the second quarter of the following year the workgroups and strategy teams forward recommendations for study plans to the Technical Review Committee (TRC). At their June meeting, the TRC combines all of this input into a study plan for the following year that is submitted to the Steering Committee. The Steering Committee then considers this recommendation and makes the final decision on the annual workplan.

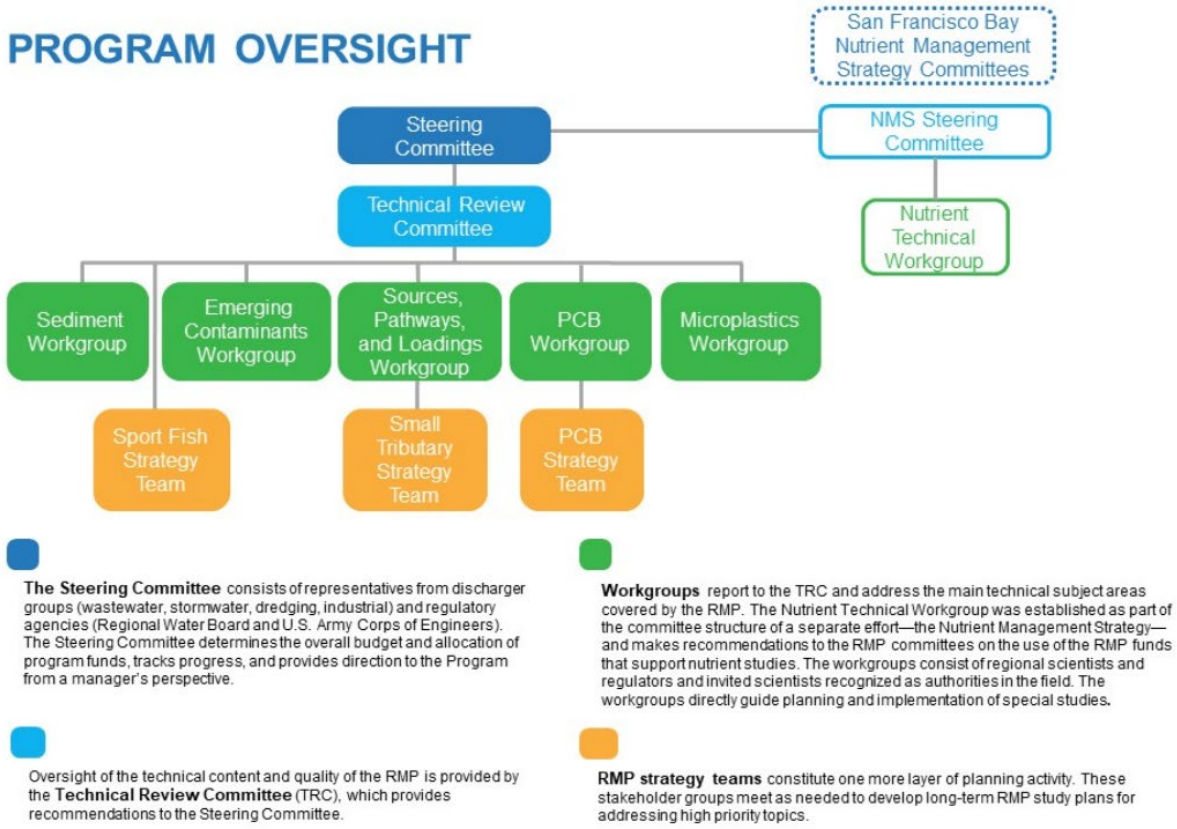
In order to fulfill the overarching goal of the RMP, the Program has to be forward-thinking and anticipate what decisions are on the horizon, so that when their time comes, the scientific knowledge needed to inform the decisions is at hand. Consequently, each of the workgroups and teams develops five-year plans for studies to address the highest priority management questions for their subject area. Collectively, the efforts of all these groups represent a substantial body of deliberation and planning.

PURPOSE OF THIS DOCUMENT

The purpose of this document is to summarize the key discussion points and outcomes of a workgroup meeting.

Governance Structure for the
Regional Monitoring Program for Water Quality in San Francisco Bay

Figure 1. Collaboration and adaptation in the RMP is achieved through the engagement of stakeholders and scientists in frequent committee and workgroup meetings.



Bay RMP Technical Review Committee Meeting

June 13, 2024

Meeting Summary

Attendees

TRC Member	Affiliation	Representing	Present
Alicia Chakrabarti	EBMUD	POTW	**Y**
Mary Lou Esparza	Central Contra Costa SD	POTW	**N**
Tom Hall	EOA, Inc.	POTW	**N**
Heather Peterson	City and County of SF	CCSF	**N**
Samantha Engelage	City of Palo Alto	POTW	**Y**
Bridgette DeShields*	Integral Consulting	Refineries	**Y**
Chris Sommers	BAMSC (EOA, Inc.)	Stormwater	**N**
Shannon Alford	Port of San Francisco	Dredgers	**N**
Richard Looker	SF Bay Regional WQCB	Water Board	**Y**
Luisa Valiela	US EPA	US EPA-IX	**Y**
Ian Wren	Baykeeper	NGOs	**Y**
Jamie Yin	US Army Corps of Engineers	USACE	**Y**
Anne Hansen Balis	City of San Jose		**N**

Staff and Others

- Jay Davis – SFEI
- Amy Kleckner - SFEI
- Martin Trinh - SFEI
- Bryan Frueh - City of San Jose
- Gerardo Martinez - SFBRWQCB
- Scott Dusterhoff – SFEI
- Diana Lin - SFEI
- Miguel Mendez - SFEI
- Rebecca Sutton - SFEI
- Alicia Gilbreath - SFEI
- Don Yee – SFEI
- Matthew Heberger – SFEI
- Pedro Avellaneda – SFEI
- Bonnie de Berry – EOA/BAMSC
- Dana Michels – EPA Region 9
- Michael Beakers – EPA Region 9
- Emily Perales – EPA Region 9
- Simret Yigsaw - City of San Jose

1. Introductions and Review Agenda

Bridgette DeShields opened the meeting with a round of introductions and a brief review of the day's agenda.

2. Decision: Approve Meeting Summary from March 26, 2024, and Confirm/Set Dates for Future Meetings

Bridgette DeShields asked the group for any final comments on the previous meeting's summary. Receiving no comments, Bridgette confirmed the dates for upcoming meetings. The next TRC meeting was confirmed for September 24, 2024 and the Multi-Year Planning Meeting was confirmed for November 4, 2024. The 2024 RMP Annual Meeting was confirmed for October 16, 2024.

Decisions:

- Richard Looker motioned to approve the meeting summary. Ian Wren seconded the motion. The motion was carried by all present members.

3. Information: SC Meeting Summary from April 15, 2024

Amy Kleckner went over the notable items from the April Steering Committee meeting, beginning with the Q1 financial update from Beth. Beth provided a summary for each open budget year (2018-2024) - what percentage of funds had been expended and what percentage of fees had been collected. The 2018 RMP budget was ready to be closed and a total of $60,731 was unencumbered and added to the undesignated reserve. Beth also shared that at the end of April, there was to be $179,289 in unallocated SEP funds available.

The next agenda item was to introduce the newest member of the modeling team - Dr. Matthew Heberger. Jay then gave an update on the USEPA SF Bay Program Office Funds, starting with a review of the list of priority areas for Funding. Luisa shared the need to allocate current fiscal year funds by the end of September and that the next step for the RMP to secure these funds would be to obtain an exception memo. Jay proposed an initial RMP request of $6 million for the next two fiscal years. Jay emphasized the need for careful planning to avoid overburdening existing staff. He also noted the importance of enhancing data management and public accessibility to RMP data. Tom suggested that the RMP could expand its data management program with future funds.

The next agenda item was an update from the workgroups on their plans for their respective workgroup meetings. Workgroup leads summarized the 2025 special study proposals they were planning to bring to their workgroups.

Next was an update from Jay and Amy on plans and ideas for RMP Program Management tasks and Status and Trends Monitoring in 2025 with anticipated USEPA funds. The discussion included aligning EPA's emphasis on environmental justice work with the RMP efforts. Ideas for this included expanding the RMPs community fish collection efforts, particularly in regions like Hunters Point. The agenda item concluded with discussions on improving RMP reporting and analysis capabilities, support of more manuscript writing, and upgrades to systems for improved sample tracking including sites databases and modernizing field data collection methods.

For the communications update Jay opened the discussion with a brainstorm session for the 2024 Pulse and Annual Meeting. Jay highlighted the need to identify authors for a management article. Tom suggested that Maggie Monahan from the Water Board and representatives from DTSC could contribute, with an immediate call for potential authors to start drafting. Moving to the Annual Meeting, Jay sought approval to start lining up speakers for key sessions. Such speakers might include RMP science advisors and RMP staff for CECs focused sessions. Additionally the meeting could cover PCB modeling in the Bay and watershed modeling by Pedro, with highlights from the other workgroups.

4. Information: USEPA San Francisco Bay Program Office Funds

Jay explained that the EPA has introduced a list of 11 priority areas for funding through their new Program Office. This list, which will be updated annually, has been finalized. Jay emphasized the significance of these 11 funding categories, especially highlighting the inclusion of the RMP (Regional Monitoring Program) and NMS (Nutrient Management Strategy) as critical priorities. Additional notable categories include PCB and PFAS management. Further discussion focused on the importance of the regional consensus that is developed in the RMP in setting priorities for these topics, facilitated by workgroups and RMP governance structure. The RMP can play a pivotal role in helping the EPA allocate funding efficiently. Jay also highlighted the importance of addressing environmental justice and climate adaptation in RMP funding requests, aligning with EPA's priorities. He noted that the RMP has sufficient matching funds to meet the required 25% match.

Jay reviewed discussions from the January meeting where the SC recommended increasing the program's budget by 50% for the next fiscal year. This recommendation is being actively implemented, with workgroups developing study ideas and planning for this budget increase.

Luisa then explained EPA's immediate need to allocate current fiscal year funds, which must be allocated by the end of September. She mentioned that $5 to $7 million could be available for the RMP. Luisa also noted that the funding level is expected to continue at approximately $54 million annually for fiscal year 2025 and beyond, necessitating strategic planning to utilize these funds effectively.

Jay proposed an initial request of $6 million to augment the next two years of the RMP (2025 and 2026), $2 million for 2025 and $4 million for 2026. The following three years (2027-2029) would each request $4 million. Additional items - $1 million for the fixed station network, $2 million for PCB TMDL studies, and $2.5 million for watershed modeling - bring the overall five-year total request to $23.5 million. Jay emphasized the need for careful planning to avoid overburdening existing staff.

To secure these funds, the RMP must first obtain an exception memo, justifying the RMP's exemption from the general EPA desire for competitive solicitations. This memo will outline the rationale and a general list of work areas. Once the exception is approved, Step 2 will be the development of a detailed workplan with specific tasks and deliverables. The goal is to have the agreement in place by the end of September (Step 3). Jay and Amy are currently working on developing the workplan.

Jay emphasized the importance of enhancing data management and public accessibility to RMP data. He acknowledged current challenges in data accessibility and expressed a commitment to improving this aspect as the RMP expands.

5. Discussion: Presentation of Special Study Proposals Recommended by Workgroups

Jay Davis introduced the item by giving an overview of the budget, and then discussing the extensive coordination happening across workgroups. He continued with a review of the number and type of special studies that were up for consideration, noting that the time during this agenda item should be used to ask technical questions of the proposal authors present at the meeting.

Workgroup leads then briefly outlined each of the proposals, highlighting how each related to other RMP efforts - both proposed or already completed - as well as

time-sensitivity. After reviewing the proposals for each workgroup, the TRC members discussed the technical details of the presented studies.

Leading off for the Emerging Contaminants Workgroup, Becky Sutton of SFEI discussed Tier 1 proposals. Strategy funding would require $70K while stormwater CEC monitoring will cost $300K. The ECWG is requesting early release of RMP funds for this. Plastic additives in water would require $235.2K, with the ECWG recommending the addition of stormwater monitoring. Quaternary ammonium compounds (QACs) in water would cost $111K, increased by $5K to expand the analyte list as requested. This would be follow up work to the draft report just released by Becky and Bill Arnold. Non-target analysis (NTA) of Bay fish would be conducted for a second year for $76K and would allow comparison to Great Lakes fish. A stormwater in vitro toxicity screening would test a new method developed by the EPA for $26K.

Becky proceeded to review the Tier 2 proposals for the ECWG. Augmented stormwater CECs monitoring aimed to extend previous work in monitoring contaminants of emerging concern (CECs) in stormwater, possibly with additional funding to enhance monitoring efforts for $150K. This is the highest Tier 2 priority for the ECWG. Two additional add-ons for consideration are the NTA add on to Stormwater 2025 Monitoring for $36K and the addition of plastic additives in Bay Water and Archived Sediment proposal for $74.8K. An analysis on tire rubber markers will conduct detailed analyses of tire particles using pyrolysis gas chromatography-mass spectrometry (GC-MS), enhancing the accuracy of tire wear particle measurements in stormwater samples for $105K. Becky proposed a PFAS nuclear magnetic resonance (NMR) analysis, utilizing advanced analytical techniques to comprehensively analyze PFAS in various matrices such as wastewater, stormwater, and bay samples for $125K. A nontarget and target analysis of fibers and urban stormwater would leverage an independent study to investigate whether dryers are an important source of microfibers for $123.7K. An analysis on PFAS wet deposition pathways project would involve community groups to collect samples and share data, focusing on assessing PFAS contamination through wet deposition pathways, with particular attention to the importance of rainfall data for exposure assessment. This effort would cost $60K. Focusing on rainfall data importance for exposure assessment and would include involvement of community groups to gather samples and share data. Finally, Becky proposed a PFAS analysis add-on to stormwater depth monitoring pilot proposed incorporating PFAS analysis into an existing pilot study on stormwater microplastics, aiming to evaluate the impact of different depth sampling on PFAS evaluation that would be $55K.

For the Microplastics Workgroup, Diana Lin outlined the Tier 1 proposals, including $20K for strategy funding. The first proposal featured a stormwater pilot study that

hoped to continue exploring sampling biases between single-depth and depth-integrated methods for an additional year, costing $106.2K. Transitioning to Tier 2 proposals, Diana presented a study to analyze microplastics in sport fish, utilizing specimens collected during the 2024 status and trends sport fish monitoring for $130K.

For the Sediment Workgroup, Scott Dusterhoff presented the Tier 1 Proposals, stressing that the dollar amounts were flexible. In Tier 1, Scott proposed three main project ideas in addition to $40K for strategy and coordination. Firstly, the development of a study plan to improve characterization of bed sediments and settling velocity to advance sediment transport modeling for San Francisco Bay would improve the RMP's modeling capabilities. The SedWG is requesting an early release of the 2025 funds ($99.5K) so a special study can be set up for 2026. The second proposal from the workgroup would examine shoreline change in San Francisco Bay for $50K. The original budget was $80k so the SedWG is recommending funding $50k in 2025 (Phase 1) and have a 2026 proposal developed for Phase 2. The next proposal would install a water quality sensor on the Richmond Bridge and include monitoring for one year for $15K. The sensor data will supplement the sediment flux transect work that will be done at the Richmond Bridge in CY2025. The sensor could remain after CY2025 if funding is available. The next proposal would focus on compiling existing sediment source, transport, deposition info and describing this conceptual understanding of sediment process in San Pablo Bay for $65K. The final proposal from the SedWG would study sediment dynamics in Grays Marsh on the Petaluma River, a fluvially influenced salt marsh.

For the Sources, Pathways, and Loadings Workgroup (SPLWG), Alicia Gilbreath presented the team's Tier 1 proposals. In Tier 1, proposals included a strategy and coordination budget aimed at enhancing internal and external coordination for monitoring and modeling needs ($65K). The first special study in Tier 1 would be Year 2 of 3 for the integrated monitoring and modeling activities for PCBs and Hg. In this study, SPLWG proposes 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, SPLWG will complete 2/3rds of these activities and intend for completion of the project in 2026. This year's effort would cost $110K. The next proposal would be the conclusion of the Tidal Area Remote Sampler Pilot for $15K as well as resampling a vandalized site from last year. The final Tier 1 proposal would fund 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 for $39K. This project will be coordinated with research on PFAS sources and solutions, with the anticipation of completing urban stormwater PFAS load estimates by 2028.

Tier 2 proposals include GIS Improvements to support modeling, data interpretation, and site selection for $40K. An add-on to stormwater CECs monitoring and modeling 2025 Project to include additional non-CECs analytes would cost $50K. The development of discharge rating curves at county-operated stage monitoring stations would research and develop an upfront workplan for monitoring select sites to where developing these rating curves would fill the biggest gaps in existing coverage for $30K. Finally, long needed upgrades to the RMP's stormwater management systems such as 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 would require $80K.

Jay presented the proposals from the PCB Workgroup. Strategy and coordination ($10K) was the only RMP Special Study item as the group already has substantial funding secured for modeling work from Destination Clean Bay and other sources. Additional PCBWG studies will be funded by the $2M request from the EPA Program Funds. The PCBWG recommended funding three studies; all would support model development in San Leandro Bay, a conceptual focal point for a revised PCBs TMDL. Contaminant flux field sampling in San Leandro Bay for $704.5K would ideally begin this winter to help inform the TMDL. Previous WG feedback spurred the addition of passive samplers and sediment traps to this study. Mapping mudflat morphodynamics matching imagery with water levels would cost $25K and is proposed to begin early 2025 while a sediment trap collection reconnaissance pilot is proposed to begin this winter for $22K.

6. Decision: Recommendation for Special Studies for 2023

The process of study prioritization by TRC members was similar to last year, and played out in a smooth and successful manner. The total RMP planning budget for 2025 with additional EPA funds was $2,310,257. Tier 1 studies for ECWG, MPWG, and SPLWG were all approved. PCBWG proposals will be funded from a separate non-RMP pot but were otherwise approved. Although SedWG did not tier its proposals, the TRC recommended funding the first four as Tier 1 studies and the Sediment Dynamics in a Fluvially Influenced Salt Marsh study as a Tier 2 proposal. All Tier 2 proposals for SPLWG were approved for funding, although the Stormwater Systems Management and Equipment Upgrades effort could be funded from another funding pot. The TRC recommended the Microplastics in SF Bay Sportfish effort be funded from another funding pot, perhaps through an upcoming SEP. As for ECWG, two Tier 2 proposals - Tire Rubber Marker Analysis for Tire Wear Particle Quantification and Nontarget Analysis Add-On to Stormwater 2025 Monitoring were recommended to be funded, but the former could be done later as it is not time-sensitive. PFAS NMR Analysis in

Wastewater, Stormwater, and Bay Matrices and Nontarget and Target Analysis of Fibers and Urban Stormwater did not fit in the overall budget but were endorsed for funding from other sources if possible. The PFAS Analysis Add-On to Stormwater Depth Monitoring Pilot was the lowest ranked proposal and would need to be conducted along with the microplastics study making it time sensitive. Finally, the TRC recommended further development on the PFAS Rainwater (Wet Deposition Pathway) Community Science: Phase 1 Planning proposal before potential funding in the future.

Decisions:

- The Committee approved the 2025 Special Study list. The motion was carried by all present members.

7. Discussion: 2024 S&T Monitoring Update and Plans for 2025

Amy provided an update on the S&T monitoring conducted in 2024 as well as plans for 2025. In 2024, the S&T Monitoring program plans to collect final dry season water samples in August and has successfully gathered cormorant eggs from various sites, including Rich Island (Suisun), Richmond San Rafael Bridge, and Newark Ponds, through USGS efforts. For sport fish, ICF is prepared to begin sampling pending permit approval.

For 2025, USEPA Bay Program Funds will allow expansion of S&T monitoring. The existing NTA budgets for 2025-2026 are inadequate, prompting Becky to draft a revised budget proposal for review. For sport fish, the RMP can begin supporting SWAMP Realignment-related work, which involves community fish collection and adding locations such as Hunters Point. Continuing S&T pilot studies can increase the number of wet season water sampling stations and storm events monitored, while also exploring targeted harbor seal sampling. The selenium monitoring program plans to increase the sampling frequency and include South Bay stations. Additionally, the proposed plan would allocate funds for more reporting, analysis, and manuscript writing, as well as upgrades to sample tracking systems, site databases, and field apps.

Adjustments for 2025 include an increase from $416K to $878K budget for the S&T Dry Season Water Cruise, with significant allocations for NTA ($403K), Aquatic Toxicity ($20K), and data management ($90K), and the removal of passive samplers (-$51K). The proposed North Bay Selenium program would cost $136K for 2025 and an additional $29K for 2026. No wet season water sampling is planned for 2025, but data from the three-year pilot will be analyzed. The S&T Bird Eggs program has a $36K budget for reporting in 2025, with the report expected in 2026. The sport fish budget will include $100K to support SWAMP Realignment related work, funding community fish collection. S&T pilot studies would see increased funding for wet season water sampling

and data management ($73k to produce a pilot report and $20k to cover data management deficit). The 2026 budget is also set to increase.

Selenium monitoring would receive more funds in 2026, focusing on two North Bay stations. The next sediment sampling is planned for 2028, and additional funds are allocated for reporting, analysis, and manuscript writing. There will be funds for more reporting and analysis as well as manuscript writing, such as a CTR, wet season pilot, and sport fish reports all in 2026. Systems upgrades are proposed to improve sample tracking, site databases, and field apps. Reporting from the USGS moored sensors may be added to the 2025 budget.

During discussions, Richard highlighted the nutrient network. Richard and Amy discussed tracking the 25% match for funding, with assistance from Sarah Lowe in identifying suitable tasks for the match.

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

Jay discussed the updated SEP list that was last revised in August 2023. Tom pointed out that some items on the list may have already been funded as special studies. The team considered adding unfunded studies to the SEP list. Bridget guided the team through the process, noting that some projects on the list, like microplastics in fish, might need merging or reviewing.

Tom emphasized the need for workgroups to review the list to ensure it is current and relevant. The team discussed the importance of including only viable projects and discussed the transition process from Tom's role. The group also contemplated a more structured system for selecting projects in the future.

The TRC discussed the relevance of keeping nutrient-related projects on the SEP list, given the expanded resources for the nutrient program. They considered whether these projects should remain on the list since the NMS might reprioritize them.

Additionally, there was a discussion about the need for formal documentation connecting projects to the Board, particularly for enforcement actions. They use templates to document projects, which are attached to settlement agreements and made public. This ensures transparency and accountability in project funding and execution.

The TRC also explored the future structure of managing nutrient projects and how to account for new funding. There was discussion on whether, over the long-term, to merge the nutrient science program into the RMP or keep it separate.

Finally, the TRC addressed the use of MMP funds. The group discussed identifying priorities for these funds and whether to recommend spending them on immediate projects or hold onto them for future needs. The conversation concluded with a focus on strategic use and flexibility in funding decisions to support ongoing and new projects effectively.

Action Items:

- Ask WG leads to review/edit the current SEP list, add any endorsed but not funded proposals, create a folder with links to all the proposals (Amy Kleckner, July 31, 2024)

9. Discussion: Plus/Delta on Workgroup Meetings

Jay queried the TRC on their experiences during the recent RMP workgroup meetings. The group noted they found the meetings challenging but ultimately successful. They noted an increase in proposals, many of which were fundable, reflecting the staff's ability to rise to the challenge of having more funds available. The workgroups did well in prioritizing the bigger lists, and there was strong attendance from key members.

The discussion shifted to the process and the need for improvements. The TRC discussed the potential for having more workgroup meetings and whether it was sustainable. The group touched on the challenges of cramming too much into one meeting and the possibility of spreading discussions across multiple sessions. One suggestion was to pre-record presentations for participants to watch before meetings, though there were concerns about whether people would actually do the pre-work.

There was a discussion about the size of the agenda packet, which was 192 pages, and the need to possibly revisit and streamline the template for write-ups to make them leaner and more manageable. Luisa emphasized the importance of trust in the workgroup recommendations and the need for clear communication and planning to handle challenges in ranking proposals.

The TRC agreed on the need for a poll to gather broader feedback from all workgroup members regarding the proposal format and meeting structure. They discussed the possibility of having a condensed version of proposals for easier review,

with the full details available for those who needed them. The item concluded with an invitation for further feedback and ongoing discussions on improving the process.

Action Items:

- Poll WG leads for feedback on governance, i.e. more meetings, pre-watch presentations, new proposal format (Amy Kleckner, August 30, 2024)
- Share feedback from TRC with WG leads that when asking for review of documents when possible be specific about which sections or areas (Executive Summary) to focus on in the review (Amy Kleckner, August 29, 2024)

10. Discussion: Communications Update

Jay began the Communications agenda item by updating the group on the status of the upcoming Pulse. He is currently reaching out to authors with guidance on word counts and content expectations. He will follow up with specific individuals, such as Maggie Monahan from the Water Board and others. Miguel Mendez is currently making progress on the CEC profiles.

Jay then turned the group's focus to potential speakers for the Annual Meeting, including advisors. Derek Muir had confirmed his spot, but others like Bill Arnold (QACs in wastewater) and Dan Villeneuve (CEC toxicity) were tentative.

Block one of the meeting would start with Amy giving an RMP update, followed by Derek's keynote. For block two, updates included a strategy revision by Becky, an update on the PFAS Sources to Solutions from Kelly Moran, and a presentation on Ethoxylated Surfactants by Jennifer Doherty with someone more senior to help handle Q&A. They also explored other session topics, including PCB modeling, watershed modeling, and integrating workgroup focus areas. The group suggested asking Pedro to present on PCB modeling and CEC modeling. Steve Carter was also mentioned as a potential speaker due to his expertise in watershed modeling and prior work in San Mateo and Santa Clara counties.

Jay discussed leveraging presentations from other regions and preparing for future comprehensive updates, possibly aiming for the 2026 Pulse. The dialogue included consideration of showcasing integrated modeling strategies and the ongoing development of a watershed modeling strategy. The item concluded with a brief update on the upcoming SFEI website redesign for improved functionality and usability.

Action Items:

- Reach out to desired authors for the Pulse (Jay Davis, July 31, 2024)
- Talk to Scott Dusterhoff about the Annual Meeting (Jay Davis, July 31, 2024)

11. Information: Status of Deliverables and Action Items

Amy reviewed the deliverables and action items with the TRC members. She began by reporting on the completed items: the NB Se clam and water data report (2019-2020), the Year 2 Suspended Sediment in LSB with 15-minute SSC time series data from 8 stations, the Ambient Sediment Thresholds Update, and all 2024 Workgroup Meetings. She also noted the successful collection of 2024 S&T Bird Egg Samples. Additionally, the Council of Wisdom meeting to discuss event-based monitoring took place on May 13, 2024.

Amy then addressed the overdue items, starting with the MTC Bay Area land use update, for which a proposal by Tony and others for SFEI to take on this work has been completed. Matt H wrote a memo requesting additional project funding and a revised timeline for the STLS regional model development, which was sent to the SC. The 2020 S&T design report is being finalized by Jay, who had to prioritize workgroup efforts first. The STLS WY21 POC Reconnaissance Monitoring data update for the Advanced Data Analysis is still pending input from Lisa Sabin. The Integrated Watershed Bay Modeling Strategy and Pilot Report remains overdue as well.

Next, Amy outlined the delayed deliverables. The 2021 S&T Bird Egg data upload is awaiting PCB results from AXYS. Pedro has begun work on the RWSM Updated Model and Technical Report, aiming to complete it by the end of June. The Ethoxylated Surfactants in Ambient Water, Margin Sediment, and Wastewater report faces external delays due to necessary analytical instrument repairs. The PCB In-Bay contaminant modeling report is not quite ready yet, though a detailed progress report was provided at the PCBWG meeting on May 30.

Finally, Amy highlighted the items due before the next meeting: the Final Margins Report, the 2021 QA Summary Report for S&T Activities, and the Sediment Deposition on SB Marsh (Whale's Tail) report, which is currently in co-author review and planned for submission in July. Additionally, the Integrated Watershed Monitoring and Modeling Strategy report is expected to be completed.

Action Item:

- Talk to Tony about an adequate report to close out the MTC SEP (Amy Kleckner, July 31, 2024)

12. Discussion: Plan Agenda Items for Future Meetings

Amy and Jay will provide an update on the workplan for EPA funds. The Annual Meeting and Pulse will be discussed as well as the SEP list.

13. Discussion: Plus/Delta

Overall, the group was commended for their sustained effort and focus throughout the day. The TRC particularly appreciated the efficient recommendation session.

DATE: July 30, 2024

TO: RMP Steering Committee

FROM: Beth Ebiner and Amy Kleckner

RE: RMP Financial Update – Period Ending 06/30/2024

The purpose of this memorandum is to provide an update of budgets and expenses for all open RMP budget years and the balances of reserve and designated funds. All of the information presented is for job to date labor and expense billing through June 30, 2024, hereafter referred to as the "current period."

RMP 2024 Budget

$2,829,785 of the $3,638,285 (78%) in 2024 invoiced fees have been collected. Notes:

1. The full 2024 revenue is $5,396,130 which includes
    a. $400,000 pass through from USACE to USGS
    b. $680,000 from set aside funds (per approval from SC on 01/22/24)
    c. $320,000 from undesignated reserve (for strategy funds & remote sampler purchase)
2. In RMP 2024, we are passing $523,000 in revenue directly through to the NMS to support NMS projects;
3. The full 2024 planned expenses are $5,396,074 (including the $400k in item 1 above and $523k in item 2 above);
4. RMP 2024 has an overall surplus of $56.
5. Table 6 shows the outstanding Accounts Receivable for 2023.

The expected fees are the sum of core fees ($3,956,642) and supplemental fees paid by wastewater agencies ($339,488) under Water Board Order R2-2016-0018 and updated Order R2-2021-0028 (hereafter referred to as Alternative Monitoring and Reporting funds or AMR funds) and $100,000 in stormwater fees per the Municipal Regional Permit.

As of June 30, 2024, we are 26% expended on the total budget.

RMP 2023 Budget

$3,899,799 of the $3,899,799 (100%) in 2023 invoiced fees have been collected. Notes:

1. The full 2023 revenue is $4,701,374 which includes
    a. $400,000 which is a pass through from USACE to USGS
    b. $300,000 from set aside funds
    c. $136,200 from undesignated reserve
2. In RMP 2023, we are passing $515,000 in revenue directly through to the NMS to support NMS projects;

3. The full 2023 planned expenses are $4,603,350 (including the $400k in item 1 above and $515k in item 2 above);
4. RMP 2023 has an overall surplus of $98,024.
5. In June 2024, the SC authorized usage of $79,000 in undesignated funds to support the STLS Regional Model Development Special Study.
6. The total amount invoiced does not include the $400,000 that will go from USACE to USGS directly;
7. The total amount invoiced includes the $98,872 invoiced to Caltrans in January 2024;

The expected fees are the sum of core fees ($3,835,574) and supplemental fees paid by wastewater agencies ($329,600) under Water Board Order R2-2016-0018 and updated Order R2-2021-0028 (hereafter referred to as Alternative Monitoring and Reporting funds or AMR funds) and $100,000 in stormwater fees per the Municipal Regional Permit.

As of June 30, 2024, we are 81% expended on the total budget.

RMP 2022 Budget

$3,645,669 of the $3,645,669 (100%) in 2022 invoiced fees have been collected. Notes:

1. The full 2022 revenue is $4,038,513 and includes $400,00 which is a pass through from USACE to USGS.
2. In RMP 2022, we are passing $508,000 in revenue directly through to the NMS to support NMS projects;
3. The full 2022 planned expenses are $3,670,800 (including the $400k in item 1 above and $508k in item 2 above);
4. The total amount invoiced does not include the $400,000 that will go from USACE to USGS directly;
5. RMP 2022 has an overall surplus of $17,713. Note that the previous surplus amount was $137,713. At the November 2022 Steering Committee meeting, the SC authorized usage of $108,000 of surplus funds to support multiple tasks: 1) $35k for the Emerging Contaminants Workgroup Strategy update, 2) $27k for the Microplastics Workgroup Strategy update, 3) $10.5k for the Sources, Pathways, and Loading Workgroup Strategy update 3) $35.5k for the Regional Watershed Dynamic Model. In addition, the Steering Committee also authorized up to $72,000 for additional stormwater sampling during Water Year 2023. As of 6/30/2023, $12,000 of the $72,000 has been allocated for additional stormwater monitoring.

The expected fees are the sum of core fees ($3,718,033) and supplemental fees paid by wastewater agencies ($320,480) under Water Board Order R2-2016-0018 and updated Order R2-2021-0028 (hereafter referred to as Alternative Monitoring and Reporting funds or AMR funds).

As of June 30, 2024, we are 88% expended on the total budget.

RMP 2021 Budget

<u>Revenue</u>

$3,675,092 of the $3,675,093 (100%) in 2021 invoiced fees have been collected. Notes:

1. The full 2021 revenue is $4,101,908 and includes $400,00 which is a pass through from USACE to USGS and $26,815 from undesignated funds. $50,000 of RMP 2021 revenue was transferred (deducted from the revenue) from RMP 2021 to Set-Aside Funds for S&T Monitoring and an additional $74,516 was transferred (deducted from the revenue) to the undesignated reserve. Therefore operating revenue is $$3,977,392;
2. The full 2021 planned expenses are $3,973,715 (including the $400k in item 1 above);

3. During Q1 2022, the dredger invoice amount was determined. This amount was $5,391 higher than planned. The full revenue amount has been updated in item 1 above.
4. The total amount invoiced does not include the $400,000 that will go from USACE to USGS directly;
5. Due to the higher than planned dredger revenue, RMP 2021 has an overall net surplus of $3,677 (was previously a deficit of $1,800).

The expected fees are the sum of core fees ($3,795,792) and supplemental AMR funds paid by wastewater agencies ($279,301).

As of June 30, 2024, we are 89% expended on the total budget.

RMP 2020 Budget

Revenue

$3,873,721 of the $3,873,721 (100%) in 2020 invoiced fees have been collected. Notes:

1. The full 2020 revenue is $3,716,846 which includes $88,129 from set aside funds for RMP Program Review, $30,000 from undesignated reserve, and deducts $275,000 which was transferred to Set-Aside Funds for S&T Monitoring;
2. The total amount invoiced does include the $400,000 that will go from USACE to USGS directly;
3. The total amount invoiced includes the $93,196 for Caltrans;
4. The total RMP 2020 local dredger revenues have been calculated at $82,814, which is lower than the original estimate of $209,489; and
5. RMP 2020 budgets were adjusted to reflect the lower dredger revenue (reduced multiple budgets by a total of $53,800) and there remains an overall revenue shortfall of $18,328.

The expected fees are the sum of core fees ($3,594,416) and supplemental AMR funds paid by wastewater agencies ($279,301).

As of June 30, 2024, we are 94% expended on the total budget.

The RMP budget is now planned at $3,735,174 which results in a deficit of $18,328. We have closed all of tasks 1-5 and the balance remaining in these tasks is $203k. After accounting for the $18k deficit, there's a remaining balance of $185k in tasks 1-5. We will hold these funds in the RMP 2020 account until we unencumber the entire year.

RMP 2019 Budget

Revenue

$3,459,851 of the $3,460,087 (99%) in 2019 fees have been collected. SFEI has written off the expected revenue from Marina Dredge Neighbors in the amount of $200. After accounting for this write off, 100% of 2019 funds have been received. Notes:

1. The full 2019 revenue is $3,879,760 (including $169,672 from undesignated reserve funds and $400,000 that will go from USACE to USGS directly);
2. The total amount invoiced does not include the $250,000 that went from the USACE to the USGS directly.

The expected fees are the sum of core fees ($3,430,787) and supplemental AMR fees paid by wastewater agencies ($279,301). There is reduced dredger revenue of $262,334 ($150,000 in reduced revenue from USACE and $112,334 reduced revenue from local dredgers). Due to this lower than expected revenue, the planned 2019 RMP expenses exceeded revenue by $36,108. At the August 2019 Steering Committee meeting, a decision was made to move $16,762 from Undesignated Reserve Funds to RMP 2019 and to reduce the RMP 2019 unallocated budget from $19,346 to $0. These two changes balanced the RMP 2019 budget.

Expenses

As of June 30, 2024, we are 95% expended on the total budget. To date, we are over budget on some tasks by about $58.7k ($39.7k on workgroup meetings, $10k on the water cruise, and $9k on the Selenium North Bay clam study (these overages were previously approved by the RMP SC). Through 12/31/2023, we have a positive balance of about $115.2k on tasks-1-5 (program management tasks). This $115.2k balance will be needed to cover previous Steering Committee approved overages. We aim to complete remaining tasks on budget and will wait until we are near 100% complete on projects to unencumber funds.

Unencumbrances this Quarter

- There is no request to unencumber at this meeting.

RESERVE FUNDS

Dedicated Set-Aside Funds

The RMP has several dedicated set-aside funds. The purpose of these funds is to spread out the cost of large projects across multiple budget years. The current balance of all set-aside funds is **$397,975**. The current balance of each set-aside fund is shown in Table 2. In the first quarter of 2022, $350,000 was transferred to the S&T set aside funds from RMP 2022. At the start of CY2023, $300,000 was withdrawn from this account and moved to RMP year 2023. At the start of CY2024, $680,000 was withdrawn from this account and moved to RMP year 2024. The historical and projected balance of the S&T Set-Aside Fund is shown in Figure 3.

Dedicated Dredger Reserve Fund

The balance of the Dredger Reserve Fund was reset to zero on January 1, 2018, when new dredger fees took effect. In 2018, there was a $62,665 credit to the Fund for dredger fees associated with the 6-month “stub year” that was created when the new fee schedule was developed[1]. There was also a debit of $109,060 because the local dredger fee payments were below their target for the year. In 2019, 2020, 2021, and 2022 there was a dredger revenue reduction due to dredged materials below targets of $262,334, $209,498, $196,757, and $192,844 respectively. Therefore, the balance of the Dredger Reserve is currently **-$907,828**. Table 3 tracks the running balance of the Dredger Reserve Fund.

Undesignated Funds

The RMP has a policy to maintain a Reserve of Undesignated Funds of at least $400,000 (this was increased from $200,000 at the October 2018 Steering Committee meeting) to allow for response to unanticipated funding needs or revenue shortfalls.

Going forward, all RMP earned interest will be deposited directly into Undesignated Funds and will be reported each quarter.

Any remaining Undesignated Funds are available for spending at the discretion of the Steering Committee. Figure 2 shows how the balance of Undesignated Funds has changed over time. The balance of Undesignated Funds through the current period is **$916,523**. Table 4 shows the withdrawals and deposits in the Undesignated Funds during the last two budget years. Q1 2024 LAIF interest was $59,339 (4.30% interest), Q2 2023 LAIF interest amount TBD (4.55% interest). The following amounts have been authorized by the Steering Committee to be transferred from the reserve during the past year:

- $38,000 (Apr 2023 additional funding to complete 3023 006 G for fish / sediment)
- $180,000 (Aug 2023 for the purchase of RMP 2024 remote sampler equipment)
- $140,000 (Nov 2023 for WG Strategy funds not accounted for in RMP 2024 Special Studies planning)
- $10,815 (Jan 2024 additional funding to complete task 3021-026 STLS Integrated Conceptual Model)
- $79,000 (Jun 2024 additional funding to complete task 3023-029 STLS Regional Model Development Special Study)

Supplemental Environmental Project (SEP) Funds

The total amount of RMP SEP funds received through the current period is $3,989,070, which includes $11,650 of additional funding for project oversight that supported previously completed and closed projects (no change since last reporting period). There are $194,289 of unallocated SEP (MMP) settlement funds that were previously received and are available.

As of the end of the current reporting period, $3,189,352 was spent on current and previous SEP projects, which includes 32 projects to date. The current balance of SEP funds is **$799,718** (includes the unallocated funds that have been received and not yet committed to a project). Table 5a summarizes the budget status for current, active SEP projects through this reporting period. Descriptions of the active and approved projects are listed in Table 5b.

FOR STEERING COMMITTEE APPROVAL

- No items for approval.

Figures and Tables

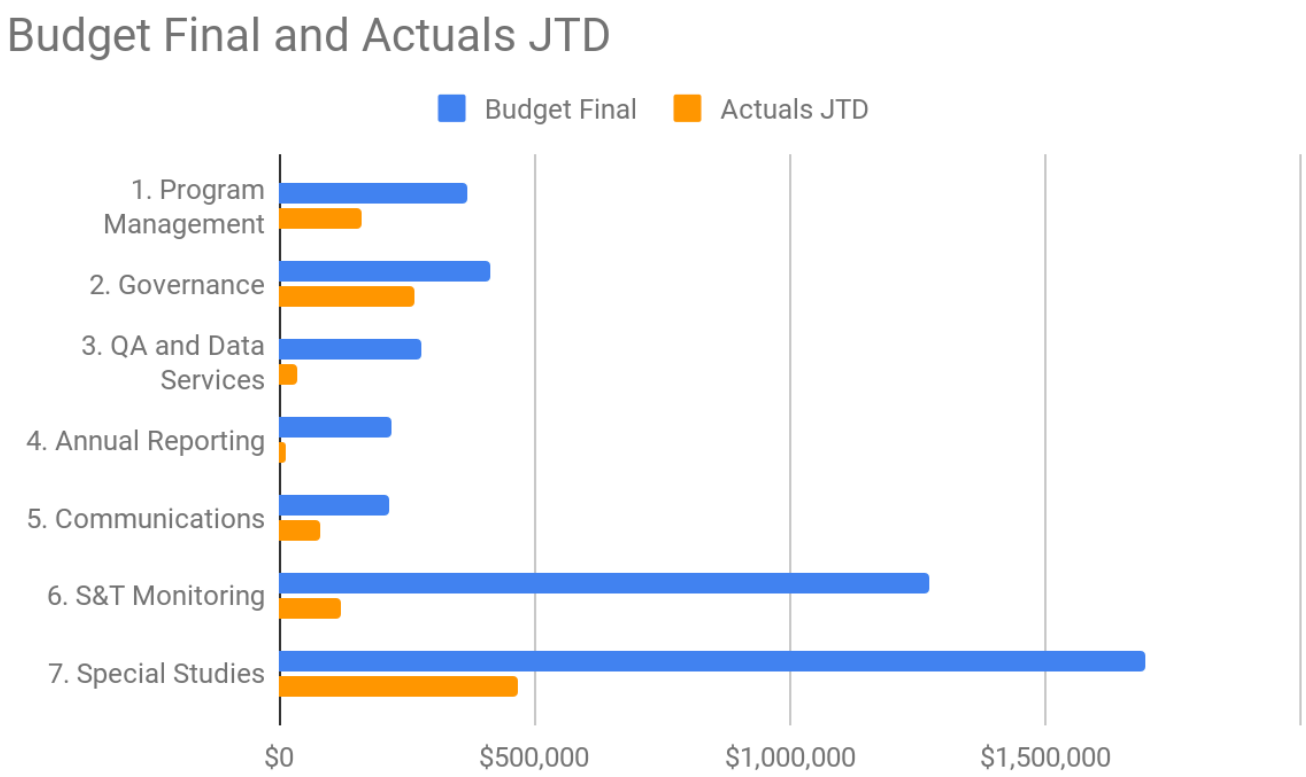


Figure 1 Bay RMP 2024 Budget. Budget and expenses through the current period by category.

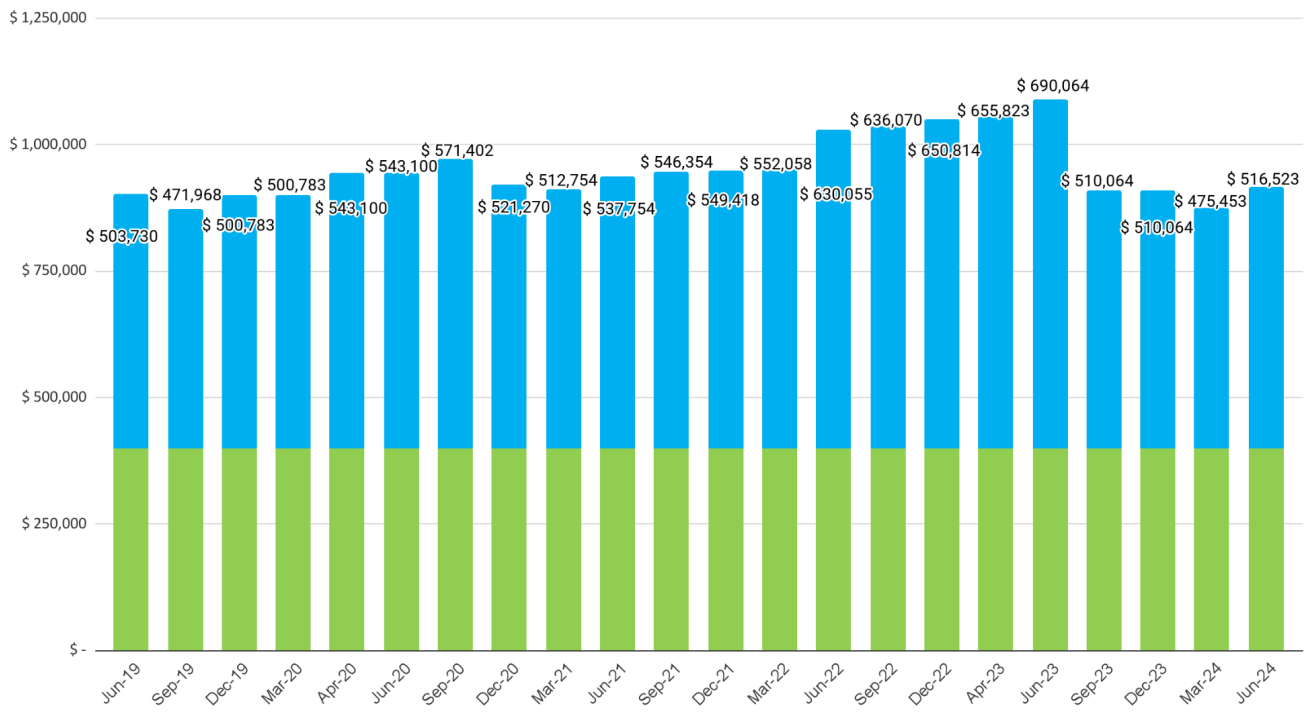


Figure 2: Bay RMP Undesignated Funds Balance over the past three years. The height of the bar shows the total balance of the Undesignated Funds. The bar is color coded to indicate the RMP policy that $400,000 of the Undesignated Funds should not be spent. Note that prior to December 2018, the RMP policy for restricted Undesignated Funds was $200,000. The increase to $400,000 was approved at the October 2018 Steering Committee meeting.

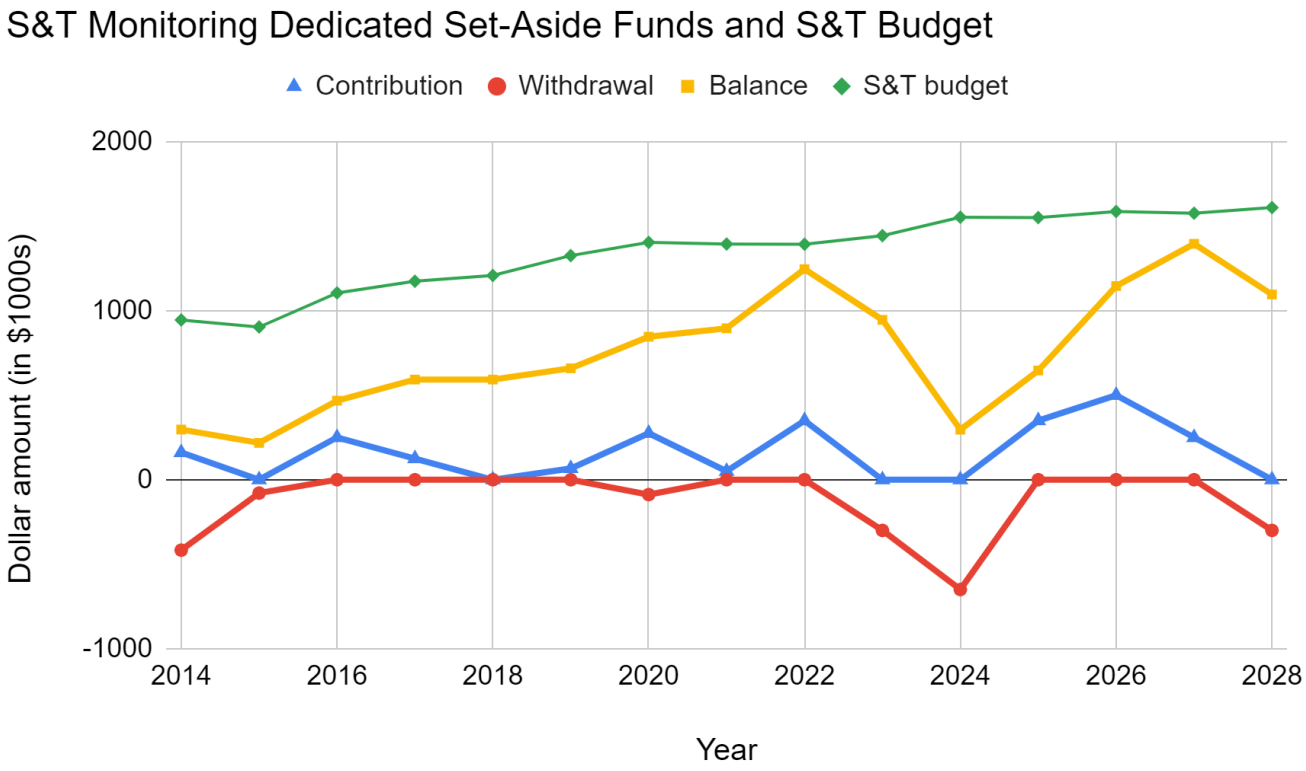


Figure 3. Contributions to and withdrawals from the S&T Set-Aside Fund from 2014 to 2022, anticipated contributions and withdrawals from 2023 to 2028, S&T actual budget for 2014 to 2021, and S&T projected budget for 2023 to 2028.

Table 1a: Bay RMP 2024 Budget: Budget and expenses for active tasks through the current period by line item.

Task	*Subtask*	*Subtask Name*	Budget	Expenses JTD	% Complete
Task Number: 001 Program Management	A	Budget and Workplan Development	$49,000	$23,750	48%
	B	Contract and Financial Management	$74,000	$20,599	28%
	C	Technical Oversight	$76,500	$42,330	55%
	D	Internal Coordination	$122,000	$55,873	46%
	E	External Coordination	$40,000	$16,287	41%
	F	Administration	$8,000	$1,093	14%
Task Number: 002 Governance	A	SC meetings	$54,500	$15,872	29%
	B	TRC meetings	$54,500	$25,417	47%
	C	General WG meetings (MF, EA, Admin only)	$64,000	$44,117	69%
	E	Emerging Contaminants WG	$55,000	$51,663	94%
	H	Sediment WG	$42,500	$41,452	98%
	I	PCB WG	$23,000	$17,541	76%
Task Number: 003 QA and Data Services	A	Quality Assurance System	$40,000	$4,694	12%
	B	Online Data Access: CD3	$75,000	$0	0%
	C	Database Maintenance	$65,000	$7,199	11%
	D	Updates to SOPs and Templates	$46,000	$17,405	38%
	E	DMMO Database Support	$54,000	$5,013	9%
Task Number: 004 Annual Reporting	A	Pulse Report	$132,000	$10,711	8%
	B	Annual Meeting	$90,000	$1,194	1%
Task Number: 005 Communications	A	Communications Plan Implementation	$53,000	$27,890	53%
	B	Stakeholder Engagement	$30,000	$7,615	25%
	C	Responses to Information Requests	$23,500	$9,993	43%
	D	Outreach Products	$19,000	$1,869	10%
	E	Presentations at Conferences and Meeting	$69,000	$26,597	39%
	G	RMP Website Maintenance	$19,500	$7,532	39%

Task	*Subtask*	*Subtask Name*	Budget	Expenses JTD	% Complete
Task Number: 006 S&T Monitoring	A	USGS Sacramento Support	$0	$0	0%
	B	USGS Menlo Park Support	$0	$0	0%
	C	Dry season water sampling	$32,894	$5,332	16%
	D	Dry season water sampling data mgmt	$5,000	$0	0%
	E	Wet season water sampling	$109,106	$11,865	11%
	F	Wet season water data mgmt	$15,000	$1,505	10%
	G	Bird egg sampling	$165,000	$41,221	25%
	H	Bird egg sampling data mgmt	$30,000	$0	0%
	I	S&T Laboratory Intercomparison Studies	$82,000	$811	1%
	J	Sample archive	$56,000	$23,723	42%
	K	S&T Field Sampling Report & Support	$25,000	$4,331	17%
	L	Sport fish sampling	$505,000	$27,731	5%
	M	Sport fish sampling data mgmt	$55,000	$0	0%
	N	North Bay Se monitoring	$15,000	$0	0%
	O	North Bay Se monitoring data mgmt	$3,000	$0	0%
	P	Harbor Seals sampling	$116,500	$1,654	1%
	Q	Harbor Seals sampling data mgmt	$10,000	$0	0%
	R	Model maintenance	$50,000	$1,502	3%
Task Number: 021 Special Study: PCBWG Mon of Sed in SLB		Special Study: PCBWG Mon of Sed in SLB	$95,846	$30,233	32%
Task Number: 023 Special Study: Microplastic Strategy		Special Study: Microplastic Strategy	$16,000	$300	2%
Task Number: 024 Special Study: Microplastic SW Mon Pilot	A	Study Design	$12,300	$4,637	38%
	B	Field Sampling	$59,300	$0	0%
	C	Data Management	$6,500	$0	0%
Task Number: 027 Special		Special Study: SPLWG	$37,000	$24,666	67%

Task	*Subtask*	*Subtask Name*	Budget	Expenses JTD	% Complete
Study: SPLWG Strategy		Strategy			
Task Number: 030 Special Study: Int Mon & Mod PCBs & Hg	A	Uncertainty Analysis	$62,000	$3,224	5%
	B	Stormwater monitoring and data mgmt	$84,000	$45,930	55%
	C	Reporting	$18,000	$0	0%
	D	Project Management	$16,000	$5,322	33%
Task Number: 031 Special Study: SPL Tidal Area Remote Sam	A	Field Work	$25,920	$9,014	35%
	B	Reporting	$23,480	$411	2%
	C	Data Management	$12,600	$0	0%
Task Number: 033 Special Study: EC Strategy Support		Special Study: EC Strategy Support	$62,000	$27,792	45%
Task Number: 035 Special Study: CEC: Tires Strategy		Special Study: CEC: Tires Strategy	$10,000	$4,623	46%
Task Number: 037 Special Study: Tire-related Contaminants	A	Study Design	$4,250	$0	0%
	B	Sample Collection	$8,250	$0	0%
	C	Data Management	$5,000	$0	0%
	D	Analysis & Reporting	$32,500	$0	0%
Task Number: 038 Special Study: NTA of SF Bay Fish		Special Study: NTA of SF Bay Fish	$23,000	$376	2%
Task Number: 039 Special Study: PFAS Synthesis and Strate	A	Synthesis	$82,000	$8,837	11%
	B	Strategy	$20,000	$0	0%
	C	Report Revisions	$5,000	$0	0%
Task Number: 040 Special Study: Plastic Add in Wastewater	A	Study Design	$2,800	$4,129	147%
	B	Sample Collection	$12,600	$106	1%
	C	Data Management	$10,000	$0	0%
	D	Analysis and Reporting	$70,000	$1,429	2%
Task Number: 042 Special Study: Suspended Sediment in LSB		Special Study: Suspended Sediment in LSB	$79,000	$13,933	18%
Task Number: 043 Special Study: Sediment WG		Special Study: Sediment WG Workplan	$15,000	$0	0%

Task	*Subtask*	*Subtask Name*	Budget	Expenses JTD	% Complete
Workplan					
Task Number: 044 Special Study: Spat var of sed SFB resto		Special Study: Spat var of sed SFB resto	$203,528	$0	0%
Task Number: 050 Special Study: Stormwater CECs Monitorin	B	Stakeholder & Science Advisor Engagement	$42,500	$14,199	33%
	C	CECs Model Development Groundwork	$55,000	$22,955	42%
	D	Integrated Scientific Systems Dev	$34,000	$28,695	84%
	E	Pilot - PFAS	$93,300	$65,784	71%
	F	Remote Sampler improvements	$65,200	$32,093	49%
Task Number: 051 Special Study: PFAS in Bay: TOP	A	Study Design	$4,847	$4,748	98%
	B	Data Management	$12,200	$0	0%
	C	Analysis and Reporting	$50,153	$27,347	55%
Task Number: 052 Remote Sampler Purchase		Remote Sampler Purchase	$180,000	$77,790	43%

Table 1b: Bay RMP 2023 Budget: Budget and expenses for active tasks through the current period by line item.

Task	*Subtask*	*Subtask Name*	Budget	Expenses JTD	% Complete
Task Number: 001 Program Management	D	Internal Coordination	$115,000	$111,928	97%
	F	Administration	$7,500	$586	8%
Task Number: 002 Governance	B	TRC meetings	$51,000	$49,991	98%
	C	Genaral WG meetings (MF, E	$61,707	$58,879	95%
	D	External Science Advisors	$60,000	$33,561	56%
Task Number: 003 QA and Data Services	B	Online Data Access: CD3	$73,200	$46,925	64%
	C	Database Maintenance	$62,000	$61,361	99%
	E	DMMO Database Support	$52,800	$41,498	79%
Task Number: 004 Annual	A	Pulse Report	$80,000	$42,225	53%

Task	*Subtask*	*Subtask Name*	Budget	Expenses JTD	% Complete
Reporting					
	B	Annual Meeting	$79,104	$67,277	85%
Task Number: 005 Communications	B	Stakeholder Engagement	$28,000	$24,994	89%
	C	Responses to Information Requests	$22,500	$20,900	93%
Task Number: 006 S&T Monitoring	C	Dry season Bay water cruise	$215,904	$193,684	90%
	D	Dry season Bay water cruise data mgmt	$33,197	$35,690	108%
	G	Nearfield and margins sediment & prey fi	$313,000	$271,286	87%
	H	Nearfield and margins sed & prey fish da	$50,000	$21,628	43%
	I	S&T Laboratory Intercomparison Studies	$60,000	$40,850	68%
	J	Sample archive	$80,000	$71,319	89%
	K	S&T Field Sampling Report & Support	$20,000	$13,885	69%
	L	Ambient Bay sediment	$170,000	$139,792	82%
	M	Ambient Bay sediment data mgmt	$30,000	$29,860	100%
Task Number: 021 Special Study: PCBs in sediment and fish		Special Study: PCBs in sediment and fish	$75,000	$46,348	62%
Task Number: 023 Special Study: Microplastic Strategy		Special Study: Microplastic Strategy	$13,000	$8,421	65%
Task Number: 029 Special Study: STLS Regional Model Devel		Special Study: STLS Regional Model Devel	$209,000	$119,624	57%
Task Number: 031 Special Study: SPL Tidal Area Remote Sam	C	Reporting	$9,000	$0	0%
Task Number: 034 Nontargeted data mining	A	Study Design	$7,000	$5,794	83%
	B	Analysis	$24,000	$18,901	79%
	C	Reporting	$14,000	$4,047	29%
Task Number: 036 CEC: Groundwork for CEC stormwater	C	Location Database	$46,300	$40,097	87%
	D	Data Analysis of SW Pilot Project	$53,000	$42,925	81%

Task	*Subtask*	*Subtask Name*	Budget	Expenses JTD	% Complete
Task Number: 037 Special Study: Tire-related Contaminants	A	Study Des & Smple Collection	$30,000	$3,319	11%
	B	Data Mgmt	$5,000	$4,273	85%
	C	Data Analysis & Report	$5,000	$0	0%
Task Number: 038 Spec Stud: EC Ethoxyl Surfact in Water	B	Data Services	$2,700	$832	31%
	C	Analysis and Reporting	$17,744	$491	3%
Task Number: 039 Spec Stud: SPL SW CECs Strategy Year 2	A	Draft Approach	$24,000	$0	0%
	B	Report	$31,000	$0	0%
Task Number: 040 Special Study: PFAS and NTA in marine ma	B	Data Management	$4,000	$0	0%
	C	Analysis and Reporting	$97,000	$8,622	9%
Task Number: 042 Special Study: Suspended Sediment in LSB		Special Study: Suspended Sediment in LSB	$52,000	$48,512	93%
Task Number: 044 Special Study: Sediment Flux Richmond Br		Special Study: Sediment Flux Richmond Br	$70,000	$0	0%
Task Number: 045 Special Study: Sediment Delivery to Mars		Special Study: Sediment Delivery to Mars	$16,750	$6,699	40%

Table 1c: Bay RMP 2022 Budget: Budget and expenses for active tasks through the current period by line item.

Task	*Subtask*	*Subtask Name*	Budget	Expenses JTD	% Complete
Task Number: 006 S&T Monitoring	C	Winter StormWater	$107,000	$102,854	96%
	D	Winter StormWater Data Mgmt	$20,000	$20,578	103%
	H	Dry season Bay water cruises	$25,000	$20,298	81%
	I	S&T Laboratory Intercomparison Studies	$22,000	$8,923	41%
	K	S&T Field Sampling	$10,000	$7,395	74%

Task	*Subtask*	*Subtask Name*	Budget	Expenses JTD	% Complete
		Report & Support			
Task Number: 029 Special Study: STLS Reg. Model Devpmt.		Special Study: STLS Reg. Model Devpmt.	$125,500	$121,417	97%
Task Number: 030 Small Tributaries Pollutants of Concern	E	Labs and Subs	$55,000	$54,522	99%
Task Number: 032 AQUA-GAPS passive sampler		AQUA-GAPS passive sampler	$10,000	$0	0%
Task Number: 034 Special Study: EC in Urban Stormwater	A	Stormwater Sampling	$33,000	$4,909	15%
	C	Analysis and Reporting	$62,000	$59,685	96%
Task Number: 037 Spec Stud: EC Tire-related contam in Bay	C	Data Analysis & Report	$9,065	$9,492	105%
Task Number: 038 Spec Stud: EC Ethoxyl Surfact in Water	A	Project Management	$2,509	$2,218	88%
	B	Data Services	$3,500	$0	0%
	C	Analysis and Reporting	$12,100	$3,485	29%
	D	Laboratory analysis	$11,891	$9,337	79%
Task Number: 039 Spec Stud: SPL SW monitor strat for CECs		Spec Stud: SPL SW monitor strat for CECs	$50,000	$23,680	47%
Task Number: 044 Special Study: Upload Data to DMMO		Special Study: Upload Data to DMMO	$20,000	$801	4%
Task Number: 045 Special Study: Sedimiment Temp variabili		Special Study: Sedimiment Temp variabili	$155,000	$155,125	100%

Table 1d: Bay RMP 2021 Budget: Budget and expenses for active tasks through the current period by line item.

Task	*Subtask*	*Subtask Name*	Budget	Expenses JTD	% Complete
Task Number: 006 S&T Monitoring	E	Bird Egg Sampling	$226,000	$124,508	55%
	F	2021 Bird Egg Data Mgmt	$30,000	$22,492	75%
	I	S&T Laboratory Intercomparison Studies	$28,000	$13,423	48%
Task Number: 021 Special Study: PCB Remediation Monitorin	C	Labs	$39,034	$29,111	75%
	D	Reporting	$12,830	$8,253	64%
Task Number: 026 Special Study: STLS Integrated Conceptua		Special Study: STLS Integrated Conceptua	$60,455	$50,042	83%
Task Number: 035 Special Study: Toxicology Strategy		Special Study: Toxicology Strategy	$60,000	$59,362	99%

Task	*Subtask*	*Subtask Name*	Budget	Expenses JTD	% Complete
Task Number: 046 Special Study: DMMO Database Enhancement		Special Study: DMMO Database Enhancement	$40,000	$26,846	67%
Task Number: 048 S&T RMP Prog Rev		S&T RMP Prog Rev	$220,000	$145,161	66%

Table 1e: Bay RMP 2020 Budget: Budget and expenses for active tasks through the current period by line item.

Task	*Subtask*	*Subtask Name*	Budget	Expenses JTD	% Complete
Task Number: 006 S&T Monitoring	E	2020 N Bay Margins Sediment Mon FieldWk	$220,600	$215,849	98%
	I	S&T Laboratory Intercomparison Studies	$37,000	$28,953	78%
	K	S&T Field Sampling Report & Support	$23,000	$10,646	46%

Table 1f: Bay RMP 2019 Budget: Budget and expenses for active tasks through the current period by line item.

Task	*Subtask*	*Subtask Name*	Budget	Expenses JTD	% Complete
Task Number: 035 Special Study: EC Ethoxylated Surf. Stud	A	Sample Collection and Reporting	$98,300	$79,492	81%
	B	Data Management	$24,700	$22,655	92%

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

Reserve Type	Purpose	Balance
Dedicated Set-Aside Fund	Monitoring Contingency	$50,000
Dedicated Set-Aside Fund	S&T Monitoring	$347,975
	TOTAL	**$397,975**

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

Year	Yearly Surplus/Deficit	Balance
Starting Balance from “Stub Year”		$62,665 (received) $62,665 (total)
2018	-$109,060	-$46,395
2019	-$262,334	-$308,729
2020	-$209,498	-$518,227
2021	-$196,757	-$714,984
2022	-$192,844	-$907,828

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

Budget Year	Deposit or Withdrawal	Reserve Type	Authorization	Date of Authorization	Amount	Comment
2023	Withdrawal	Undesignated Funds	Steering Committee	2/23/2023	-$8,200	$8,200 withdrawal from undesignated funds approved by SC on 2/23/23 allocated for 3023-43
2023	Withdrawal	Undesignated Funds	Steering Committee	2/23/2023	-$11,000	$11,000 withdrawal from undesignated funds approved by Tom/SC on 3/21/23 to be allocated to RMP project task 3023.00-047 to support the completion of the SEP project 3300-21E
2022	Deposit	Undesignated Funds	Program Manager	12/31/2022	$24,209	Q4 2022 LAIF interest
2023	Withdrawal	Undesignated Funds	Steering Committee	4/26/2023	-$38,000	$38k withdrawal from undesignated funds approved by SC for 3023 006 G for fish/sed
2023	Deposit	Undesignated Funds	Program Manager	3/31/2023	$34,081	Q1 2023 LAIF interest
2023	Deposit	Undesignated Funds	Program Manager	3/31/2023	$38,160	Q2 2023 LAIF interest
2023	Withdrawal	Undesignated Funds	Steering Committee	8/31/2023	-$180,000	SC approved $180k move from undesignated reserve to 3024.00 031 for purchase of remote sampler equipment.
2023	Deposit	Undesignated Funds	Program Manager	9/30/2023	$55,146	Q3 2023 LAIF interest

Budget Year	Deposit or Withdrawal	Reserve Type	Authorization	Date of Authorization	Amount	Comment
2023	Withdrawal	Undesignated Funds	Steering Committee	11/1/2023	-$140,000	SC approved 2024 WG Strategy funds not accounted for in Special Studies planning process
2024	Deposit	Undesignated Funds	Program Manager	1/31/2024	$61,058	Q4 2023 LAIF interest
2024	Withdrawal	Undesignated Funds	Steering Committee	1/22/2024	-$10,815	SC approved withdrawal of additional funding to complete task 3021-026
2024	Deposit	Undesignated Funds	Steering Committee	3/31/2024	$59,339	Q1 2024 LAIF interest
2024	Deposit	Undesignated Funds	Steering Committee	4/15/2024	$60,731	Left-over funds from 3018.00 unencumbered at the 4/15/24 SC meeting.
2024	Withdrawal	Undesignated Funds	Steering Committee	6/25/24	-$79,000	SC approved withdrawal of additional funding to complete task 3023-029 STLS Regional Model Development Special Study

Table 5a: Bay RMP Supplemental Environmental Project (SEP) Settlement Funds budget status for open, current projects or projects that ended within the last quarter. Listed are the amount of funds received and allocated to specific projects, the amount spent through the end of this reporting period, and the amount of unallocated funds available for this reporting period. The RMP maintains records of each settlement payment in their accounting system.

Active RMP SEP Projects	Amount Funded	Amount Spent	SEP Project Balance
Task 015: North Bay Selenium Clam and Water Data Management and Reporting	$40,000	$39,998	$2
Task 019: ECWG Special Study 2020 Q_Ammonium Compounds Survey	$58,200	$47,428	$10,772
Task 023: Integrated Watershed-Bay Modeling Strategy and Pilot Implementation	$200,000	$141,211	$58,789
Task 024: Regional Watershed Spreadsheet Model Update	$23,300	$16,168	$7,132
Task 026: Characterizing Per- and Polyfluoroalkyl Substances (PFAS) and Chlorinated Paraffins in San Francisco Bay Sediment	$106,150	$68,575	$37,575
Task 027: High speed mapping of water quality parameters on the eastern shoal of South San Francisco Bay	$184,470	$161,711	$22,759
Task 028: San Francisco Bay Sediment Transport and Fate Modeling	$408,000	$154,358	$253,642
Task 030: Non-targeted Analysis (NTA) Sediment Data Manuscript	$37,600	$32,794	$4,806
Task 031: Investigating harmful algal blooms in San Francisco Bay: priority data, model development/application, and synthesis	$252,300	$42,349	$209,951
Unallocated	$194,289	$0	$194,289
Total for above active projects and unallocated funds	**$1,504,309**	**$704,591**	**$799,718**
Total for all SEP Projects	**$3,977,420**	**$3,189,352**	**$799,718**

Table 5b: Active Bay RMP Supplemental Environmental Project Descriptions

Study Name	Budget	Description	Status
Task 015 North Bay Selenium Clam and Water Data Management and Reporting	$40,000	The goal of the study is to provide data quality assurance, data management, and preparation of a data report for clam and water selenium monitoring conducted by the Regional Monitoring Program for Water Quality in San Francisco Bay (RMP) in North San Francisco Bay. This monitoring is being conducted by the RMP in support of the North Bay Selenium TMDL. This study will cover clam and water selenium data generated by RMP monitoring in 2019 and 2020.	Approved
Task 019 ECWG Special Study 2020 Quaternary Ammonium Compounds Survey	$58,200	Quaternary ammonium compounds (QACs) are surfactants widely used in a variety of consumer products, particularly as antimicrobials. The current COVID-19 pandemic is thought to have increased use of products containing QACs, which is expected to continue into the near future. QACs have been detected in San Francisco Bay sediment, and are considered Possible Concern within the RMP tiered risk-based framework for emerging contaminants in the Bay. This ECWG special study will determine the concentrations of at least 22 QACs in Bay Area wastewater influent and effluent and begin to assess the temporal trends related to COVID-19.	Approved Started 7/2020
Task 023: Integrated Watershed-Bay Modeling Strategy and Pilot Implementation	$200,000	This project will produce and implement a strategy that integrates, links, and advances modeling tools to evaluate transport and loading of pollutants and sediment to San Francisco Bay from its tributary watersheds and other sources and pathways, and to evaluate the fate and transport of the resulting exposure of the pollutants in the Bay. Currently available models include watershed and Bay dynamic simulation models, watershed spreadsheet models, food web models, and mass balance conceptual box models of the Bay and Bay margins. Integrated use of these modeling tools and monitoring data will provide improved understanding of the linkages between ecosystem components and will better answer management questions to inform preventive and corrective actions for pollutants of concern, including contaminants of emerging concern, and management of sediment sources and supply needed for sea level rise resilience and adaptation, and habitat protection and restoration.	Approved Started 6/2021
Task 024: Regional Watershed Spreadsheet Model Update	$23,300	The Regional Watershed Spreadsheet Model (RWSM) was developed to estimate average annual regional and sub-regional scale pollutant loads to San Francisco Bay from stormwater runoff. It is part of a class of deterministic empirical models based on the volume-concentration method. In the Bay Area, it has so far been used for providing first approximations of regional (Baywide) and sub-regional (e.g., individual county, Bay segment, or priority margin unit) estimates of PCBs, mercury, copper, nutrients, and microplastics.	Approved Started 6/2021

Study Name	Budget	Description	Status
		The model will be recalibrated for flow using a new calibration period (1991-2020) and updated land use data to be published by the Metropolitan Transportation Commission in March 2021. The recalibrated flow model will be used to improve the model calibration and load estimates for mercury and one or more other pollutants.	
Task 026: Characterizing Per- and Polyfluoroalkyl Substances (PFAS) and Chlorinated Paraffins in San Francisco Bay Sediment	$106,150	This study will assess PFAS concentrations in San Francisco Bay sediment samples to improve our understanding of the occurrence and risks associated with PFAS in the Bay. Sediment samples collected throughout the Bay in 2018 and archived for the Status and Trends (S&T) Program will be analyzed, as well as a subset of samples expected to be collected in 2023 to provide information on current status. PFAS will be analyzed via targeted methods using tandem liquid chromatography/mass spectrometry (LC-MS/MS), and may also include analysis via the total oxidizable precursors (TOP) assay, which allows characterization of the overall presence of precursors rather than individual PFAS.	Approved Started 4/2022
Task 027: High speed mapping of water quality parameters on the eastern shoal of South San Francisco Bay	$184,470	This study will conduct high speed mapping of water quality parameters covering the eastern shoals of South San Francisco Bay (monthly) over 4 months. The mapping surveys will include information about water quality, nutrients, phytoplankton, and near-field remote sensing of high spatial resolution on the shoals and into the channels. The results will provide a quantitative understanding of phytoplankton and nutrient dynamics on the shoals and how they link to nutrient cycling processes in the channels of San Francisco Bay.	Approved Started 7/2022
Task 28: San Francisco Bay Sediment Transport and Fate Modeling	$408,000	This project will produce a foundational quantitative model of sediment transport and fate in San Francisco Bay that can be used to address management questions for polychlorinated biphenyls (PCBs), nutrients, and sediment. The study will have four major elements: 1. Compilation of existing information on (a) sediment loadings and boundary conditions and (b) sediment properties and parameters in San Francisco Bay; 2. Diagnostic analysis of sediment transport and fate model development; 3. Application of the model to answer management questions for PCBs, nutrients, and sediment supply; and 4. Coordination among the scientists working on the multiple facets of this effort and the stakeholders (including Regional Water Board staff) providing guidance via San Francisco Bay Regional Monitoring Program and Nutrient Management Strategy workgroups.	Approved Started 9/2022

Study Name	Budget	Description	Status
Task 030: Non-targeted Analysis (NTA) Sediment Data Manuscript	$37,600	This SEP funding supports the development of a manuscript that would report on non-targeted techniques to examine both nonpolar and polar contaminants in Bay sediment using data reported from a 2018 RMP study lead by Lee Ferguson at Duke and Eunha Hoh at San Diego State University. SFEI staff will use the data provided by the 2018 study to further assess the distribution patterns, pathway influences, potential compound sources, and available toxicity information to inform prioritization. In addition SFEI will develop a 2-page fact sheet to describe the results and their implications modeled after past RMP fact sheets for non-targeted analysis.	Approved Started 1/2023
Task 031: Investigating harmful algal blooms in San Francisco Bay: priority data, model development/application, and synthesis	$252,300	In August 2022, SFB experienced its first severe harmful algae bloom (HAB) event, with a large-scale bloom of the organism Heterosigma akashiwo resulting in unprecedented water quality impacts in South Bay and other regions, including widespread fish mortality. The recent SFB monitoring program investments allowed a team of regional scientists (SFEI, USGS, UCSC) to quickly mobilize and intensively track the HAB event, yielding valuable datasets (field surveys; in situ measurements using water quality moorings; remote sensing) and samples (preserved/archived) that are essential for understanding the factors that initiated and shaped this HAB event. In this study, SEP funds will be used to support a range of activities related to understanding the August 2022 HAB event, including: analysis of physical forcing data (sunlight, wind, tides); analysis of water quality datasets from ship-based, mooring, and remote-sensed measurements (nutrients; phytoplankton abundance; dissolved oxygen; suspended sediments; etc.) to characterize how conditions varied spatially and temporally over the course of the event; analysis of archived samples collected during or in the lead-up to the event for molecular/DNA related parameters (e.g., sequencing to characterize phytoplankton, grazers, bacteria, viruses); application of numerical models to quantitatively explore coupled transport/transformation hypotheses; and numerical simulations to explore how potential management actions (e.g., nutrient load reductions to SFB) could lower the risk of similar events in the future.	Approved Started 7/2023

Table 6: Steering Committee RMP Budget Summary as of 6/30/2024

Budget and Current Expenses

Year	Budget	Expended	Balance	Previously Unencumbered	Unencumbered this Period	Balance minus Unencumbered (Remainder)	% Remaining
	$	$	$	$	$	$	%
SEP	$3,989,070	$3,189,352	$799,718	0	0	$799,718	20%
2024	$4,473,074	$510,986	$3,962,088	0	0	$3,962,088	89%
2023	$3,688,350	$2,627,156	$1,061,194	0	0	$1,061,194	29%
2022	$2,762,800	$2,398,132	$364,668	0	0	$364,668	13%
2021	$3,573,715	$3,116,497	$457,218	0	0	$457,218	13%
2020	$3,735,174	$3,497,131	$238,043	0	0	$238,043	6%
2019	$3,819,850	$3,640,705	$179,145	0	0	$179,145	5%
Grand Total	**26,042,033**	**18,979,959**	**7,062,074**	**0**	**0**	**7,062,074**	**27%**

Year	Accounts Receivables & Remaining Interest:	Amount	Notes
2024	3024.03 Calistoga - Municipal	$6,471	

2024	3024.21 San Jose/Santa Clara - Municipal	$245,235	
2024	3024.32 Vallejo SFC - Municipal	$57,362	
2024	3024.34 Yountville - Municipal	$6,959	
2024	3024.35 Treasure Island (U.S. Navy) - Municipal	$15,175	
2024	3024.40 Rhodia Inc - Industrial	$19,810	
2024	3024.41 Martinez Refining Company - Industrial	$71,487	
2024	3024.43 Phillips 66 Company - Industrial	$71,487	
2024	3024.44 USS-POSCO - Industrial	$41,342	
2024	3024.48 Contra Costa - Stormwater	$185,727	
2024	3024.52 San Francisco - Stormwater	$50,179	
2024	3024.53 Vallejo - Stormwater	$16,878	
2024	3024.54 Fairfield-Suisun - Stormwater	$20,390	

Table 1: Summary of Proposals for RMP Special Studies in 2025

Workgroup	Study Name	PI / Agency	Funding Request	WG Ranking	TRC Recommenda-tion: Tier 1	TRC Recommenda-tion: Tier 2	TRC Notes	Time sensitive	Multi-year study	Multi-workgroup study	Notes
Emerging Contaminants	ECWG Strategy	Sutton / SFEI	$70,000	NA	$70,000						
Emerging Contaminants	Stormwater CECs Monitoring and Modeling 2025	Moran / SFEI	$300,000 - $450,000	Tier 1 ($300,000) Tier 2 - #1 ($150,000)	$300,000	$150,000		Y	N	Y	Early release of RMP funds requested
Emerging Contaminants	Plastic Additives in Bay Water and Archived Sediment	Mendez / SFEI	$170,750 - $310,920	Tier 1 ($235,200)	$235,200			N	Y	N	Bay Water Only $170,760, + $65, 350 (Archived Sediment), + $74,820 (Stormwater)
Emerging Contaminants	Quarternary Ammonium Compounds (QACs) in Bay Water and Stormwater	Mendez / SFEI	$111,000 - $174,000	Tier 1 ($106,000)	$106,000			N	Y	N	Bay Water Only $111k, Bay water and Stormwater $174k
Emerging Contaminants	Nontarget Analysis of San Francisco Bay Fish (Year 2)	Miller / SFEI	$76,000	Tier 1	$76,000			Y	N	N	year 2 of a two year project
Emerging Contaminants	Stormwater In Vitro Toxicity Screening	Miller / SFEI	$26,000	Tier 1	$26,000			Y	N	N	Early release of RMP funds requested
Emerging Contaminants	Tire Rubber Marker Analysis for Tire Wear Particle Quantification	Lin / SFEI	$105,000	Tier 2 - #2		$105,000	Not neccessarily time sensitive, could be done later.	Y	Y	Y	
Emerging Contaminants	PFAS NMR Analysis in Wastewater, Stormwater, and Bay Matrices	Mendez / SFEI	$125,000	Tier 2 - #3			endorsed for funding	Y	N	N	$125k Year1, est. $200-260k Year 2
Emerging Contaminants	Nontarget and Target Analysis of Fibers and Urban Stormwater	Lin / SFEI	$123,700	Tier 2 - #4			endorsed for funding	N	N	Y	Early release of RMP funds requested
Emerging Contaminants	PFAS Rainwater (Wet Deposition Pathway) Community Science: Phase 1 Planning	Mendez / SFEI	$60,000	Tier 2 - #5			Is more thinking required? Didn't receive endorsement for funding	N	N	N	$60k Phase1, est. $200-400k for implementation
Emerging Contaminants	PFAS Analysis Add-On to Stormwater Depth Monitoring Pilot	Lin / SFEI	$55,000	Tier 2 - #6			Time-sensitive, but lowest ranked, would need to be done with the MP study.	Y	N	N	Early release of RMP funds requested
Emerging Contaminants	Nontarget Analysis Add-On to Stormwater 2025 Monitoring	Miller / SFEI	$36,000	Tier 2 - ?		$36,000		Y	N	N	Early release of RMP funds requested
	Proposals Total		**$1,258,450 - $1,611,620**								
	Planning Budget for 2025 (Tier 1)		**$622,819**		**$813,200**						
	Estimated USEPA funds for 2025 (Tier 2)		**$311,409**			**$291,000**					
Microplastic	MPWG Strategy	Lin / SFEI	$20,000	NA	$20,000						
Microplastic	Microplastics Stormwater Monitoring Pilot (Year 2 of 2)	Lin / SFEI	$106,200	1	$106,200			Y	N	N	Early release of RMP funds requested
Microplastic	Microplastics in San Francisco Bay Sport Fish	Lin / SFEI	$130,000	2			$3.5k for archiving could be funded elsewhere	N	N	N	
	Proposals Total		**$256,200**								
	Planning Budget for 2025 (Tier 1)		**$99,560**		**$126,200**						
	Estimated USEPA funds for 2025 (Tier 2)		**$49,780**			**$0**					
Nutrients	Moored sensor high-frequency observation network	Senn / SFEI	$250,000	N/A	$250,000			Y	Y	N	
	Proposals Total		**$250,000**		**$250,000**	**$0**					
Sediment	SedWG Strategy	Dusterhoff / SFEI	$40,000	NA	$40,000						
Sediment	Develop a study plan to improve characterization of bed sediments and settling velocity to advance sediment transport modeling for San Francisco Bay	Lacy / USGS	$106,900	1	$106,900			Y	N	N	Early release of RMP funds requested
Sediment	Shoreline Change in San Francisco Bay	Braud / SFEI	$50,000	2	$50,000			N	Y	N	$50k Year 1, approx. $30k Year 2
Sediment	Suspended Sediment Flux Measurements at Richmond-San Rafael Bridge, California	Hart / USGS	$15,000	3	15,000			Y	N	N	
Sediment	Refining the Conceptual Understanding of Sediment Transport in San Pablo Bay	Stark / SFEI	$65,000	4	65,000			N	N	N	
Sediment	Sediment Dynamics in a Fluvially Influenced Salt Marsh	Nowacki & Lacy / USGS	$121,500	5		121,500		Y	Y	N	
	Proposals Total		**$398,400**								
	Planning Budget for 2025 (Tier 1)		**$271,108**		**$276,900**						
	Estimated USEPA funds for 2025 (Tier 2)		**$135,554**			**$121,500**					
Sources Pathways and Loading	SPLWG Strategy	Gilbreath / SFEI	$65,000	NA	$65,000						

Table 1: Summary of Proposals for RMP Special Studies in 2025

Workgroup	Study Name	PI / Agency	Funding Request	WG Ranking	TRC Recommenda-tion: Tier 1	TRC Recommenda-tion: Tier 2	TRC Notes	Time sensitive	Multi-year study	Multi-workgroup study	Notes
Sources Pathways and Loading	Integrated Monitoring and Modeling to Support PCBs and Mercury Watershed Loads Uncertainties Assessment and Monitoring Design (Year 2 of 3)	Avellaneda / SFEI	$110,000	Tier 1	$110,000			N	Y	N	
Sources Pathways and Loading	Tidal Area Remote Sampler Pilot - Year 3	Gilbreath / SFEI	$15,000	Tier 1	$15,000			Y	Y	N	
Sources Pathways and Loading	Stormwater CECs Modeling and Data Analysis	Avellaneda / SFEI	$39,000	Tier 1	39,000			Y	N	Y	
Sources Pathways and Loading	GIS Improvements to Support Modeling, Data Interpretation, and Site Selection	Heberger / SFEI	$40,000	Tier 2		40,000		N	N	N	
Sources Pathways and Loading	Stormwater Systems Management and Equipment Upgrades	Gilbreath / SFEI	$80,000	Tier 2		80,000	Should this be considered for funding elsewhere?	Y	N	N	Early release of RMP funds requested
Sources Pathways and Loading	Develop Discharge Rating Curves at County-Operated Stage Monitoring Stations	Heberger / SFEI	$30,000	Tier 2		30,000		N	N	N	
Sources Pathways and Loading	Add-on to Stormwater Contaminants of Emerging Concern (CECs) Monitoring and Modeling 2025 Project to Include Additional Non-CECs Analytes	Gilbreath / SFEI	$50,000	Tier 2		50,000		Y	N	Y	Early release of RMP funds requested
	Proposals Total		**$429,000**								
	Planning Budget for 2025 (Tier 1)		**$286,685**		**$229,000**						
	Estimated USEPA funds for 2025 (Tier 2)		**$143,342**			**$200,000**					
PCBs	PCBWG Strategy	Davis / SFEI	$10,000	NA	$10,000						
PCBs	San Leandro Bay OPTICS Study	Scheu / Integral	$704,000					Y	N	N	To be funded from separate PCB pot
PCBs	Mapping Mudflat Morphodynamics	Yee / SFEI	$25,000					Y	N	N	To be funded from separate PCB pot
PCBs	Sediment Trap Reconnaissance	Yee / SFEI	$22,000					Y	N	N	To be funded from separate PCB pot
	Proposals Total		**$761,000**								
	Planning Budget for 2025 (Tier 1)				**$10,000**						
	+ Estimated USEPA funds for 2025 (Tier 2)					**NA**					
	Proposed Total for RMP Special Studies Funding		**$2,397,050 - $2,750,220**	**TRC Grand TOTAL**	**$1,705,300**	**$612,500**	$2,317,800				
		TOTAL RMP Planning Budget for 2025			**$1,540,171**	**$770,086**					
		+ Estimated USEPA funds for 2025			**$2,310,257**		-$7,543				

RMP SUPPLEMENTAL ENVIRONMENTAL PROJECT CANDIDATE LIST Drafted 07-30-24

Project	Estimated Budget Range	Nexus Keywords	Geography	Matrix	Oversight Group	Project Lead	Year Proposed	Comments
Projects that have been reviewed by a RMP workgroup, and/or the Technical Review Committee, (as indicated in the Oversight Group column) and approved by the Steering Committee.								
Identification and Pilot Monitoring of High-Priority Current Use Agricultural Pesticides in Region 2	$75,000 - $125,000	Emerging Contaminants, Pesticides	North Bay	Stormwater	ECWG	SFEI	2014	
Monitoring for Halogenated Azo Dyes in Bay Sediments	$65,000 - $130,000	Emerging Contaminants, Azo dyes,	Whole Bay	Sediment	ECWG	SFEI	2020	
~~Monitoring Microplastics in San Francisco Bay Sport Fish~~	~~$50,000- $200,000~~	~~Microplastic, Sport Fish~~	~~Whole Bay~~	~~Sport fish~~	~~MPWG~~	~~SFEI/U. Toronto~~	~~2019~~	
Tire Particle/Contaminant Fate and Transport	$90,000 - $115,000	Microplastics	Whole Bay	Particles	MPWG	SFEI	2021	
Size Distribution of Microplastic Particles in SF Bay	$65,000 - $105,000	Microplastics	Whole Bay	Particles	MPWG	SFEI	2023	
~~Biogeochemical transformation rates in San Francisco Bay~~	~~$50,000 - $300,000~~	~~Nutrients~~	~~Whole Bay~~	~~Water~~	~~Nutrients~~	~~SFEI~~	~~2021~~	
Richmond Harbor PCB Conceptual Model Development	$50,000- $100,000	PCBs, Central Bay	Richmond Harbor	Sediment, Fish, Water	PCBWG	SFEI	2018	

Project	Estimated Budget Range	Nexus Keywords	Geography	Matrix	Oversight Group	Project Lead	Year Proposed	Comments
Filling Bathymetry Data Gaps	$50,000-$250,000	Bathymetry	Whole Bay	Sediment	SedWG	USGS	2019	
~~Toxicity Reference Value Refinement~~	~~$30,000~~	~~Toxicity, Dredged sediment, Beneficial reuse~~	~~Whole Bay~~	~~Sediment~~	~~SedWG~~	~~SFEI~~	~~2019~~	
Estimation of future sediment loadings from local tributaries	$70,000	Sediment, future conditions	Whole Bay	Water	SedWG	SFEI	2021	
Napa and Sonoma Sediment Loads	$138,500	Watershed sediment supply	North Bay	Sediment	SedWG	SFEI	2022	Addition: Special Study proposal put forth for 2023 funding but not selected.
Sediment Conceptual Model(s) for Individual San Francisco Bay Segments and Subembayments	modular	Sediment	Whole Bay	Sediment	SedWG	SFEI	2023	
Identifying mechanisms controlling selenium bioavailability at the base of the food web in North versus South San Francisco Bay	$112,000	Selenium, Bioavailability, South Bay	North and South Bay	Water	SeWG	USGS	2020	
~~Use of Remote Stormwater Sampling Devices to Improve Temporal Coverage of Sampling~~	~~Year 1: $160,000~~	~~PCBs, methods development,~~	~~Whole Bay~~	~~Stormwater~~	~~SPLWG~~	~~SFEI~~	~~2017; revised 2022~~	

Project	Estimated Budget Range	Nexus Keywords	Geography	Matrix	Oversight Group	Project Lead	Year Proposed	Comments
	~~Year 2: $120,000~~	~~remote samplers~~						
Develop a Statistical Model for Trends Evaluation	$35,000-$50,000	Stormwater flows, pollutant loads, PCBs	Whole Bay	Stormwater	SPLWG	SFEI	2018	We will keep this idea, but change the content of previously proposed work and run it through at the SPLWG meeting.
Mallard Island Monitoring for Loads and Trends	$150,000 - $200,000	Sediment load, Delta, PCBs, Hg, Se, Pesticides microplastics, CECs, Bay mass balance	North Bay	Sediment	SedWG SPLWG ECWG	SFEI	2020	
Nutrient exchanges between SFB and the coastal ocean (export, import)	$50,000-$300,000	Nutrients	Central, South Bays	Surface Water	Nutrients	SFEI	2023	
Expanded water quality monitoring to support nutrient management decisions	$50,000-$300,000	Nutrients	Whole Bay	Surface Water	Nutrients	SFEI	2023	
Biogeochemical transformation rates in San Francisco Bay: field studies and/or synthesis/interpretation	$50,000-$300,000	Nutrients	Whole Bay	Surface Water	Nutrients	SFEI	2023	

Tire Wear Emissions and Washoff Estimates Journal Paper

Summary: Tire wear is one of the top sources of microplastic releases to the environment. Tire wear also disperses tire-related chemicals into the environment. SFEI studies supported by the RMP and others have found tire wear particles and tire-related chemicals in San Francisco Bay and its small tributaries, which drain the Bay watershed's local urban areas. In 2023, RMP published a report *Tire Wear: Emissions Estimates and Market Insights to Inform Monitoring Design* estimating the total emissions of tire wear particles in the San Francisco Bay region and the state of California. The report used extrapolations from the limited available monitoring data from SFEI's one-time microplastic monitoring effort (Sutton et al., 2019) to estimate the potential scale of tire particle and chemical transport into Bay Area surface waters at about 2-16% of overall emissions. While this washoff fraction estimate is lower than the 15–50% used in published tire particle modeling studies, it is in the range that would be expected based on road particle washoff data (9%, Pitt et al., 2005). To our knowledge, this is the first quantitative comparison between microplastic emissions and loads in urban runoff.

Presentations on this report have garnered international interest. Sharing the information in the form of a scientific 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.

This proposal requests funding to turn the relevant portions of the report into a scientific paper for an open access publication in a peer-reviewed journal. We propose to collaborate on the publication with Professor Barbara Beckingham (College of Charleston), who helped us with tire particle volume estimates supporting the washoff estimates. The proposal includes a journal open access fee (estimated at $4,000).

Estimated Cost:	$19,000
Oversight Group:	ECWG and MPWG
Proposed by:	Kelly Moran and Rebecca Sutton (SFEI), Barbara Beckingham (College of Charleston)
Time Sensitive:	Yes, report was published in 2023

PROPOSED DELIVERABLES AND TIMELINE

Deliverable	Due Date
Task 1. Draft journal paper	Fall 2024
Task 2. Final journal paper	Spring 2025

References

Moran, Kelly; Gilbreath, Alica; Méndez, Miguel; Lin, Diana; Sutton, Rebecca. 2023. Tire Wear: Emissions Estimates and Market Insights to Inform Monitoring Design. SFEI Contribution #1109. San Francisco Estuary Institute, Richmond, CA.

Pitt, R. E., Williamson, D., Voorhees, J., & Clark, S. (2005). Review of Historical Street Dust and Dirt Accumulation and Washoff Data. *Journal of Water Management Modeling*, *13*, 203–246.

Sutton, R., Lin, D., Sedlak, M., Box, C., Gilbreath, A., Holleman, R., Miller, L., Wong, A., Munno, K., Zhu, X., & Rochman, C. (2019). *Understanding Microplastic Levels, Pathways, and Transport in the San Francisco Bay Region.* (SFEI Contribution No.950.)

Land feature datasets for modeling stormwater loads of contaminants of emerging concern

Summary: Land features are essential for developing hydrological models that estimate contaminant loads. For instance, most hydrologic models rely on the area of various land uses (e.g., industrial, commercial, residential) to estimate surface runoff volumes and contaminant loads. Exploring relationships between contaminants of emerging concern (CEC) concentrations and land features requires consideration of specific land features beyond land use.

Newer geospatial datasets from companies like Ecopia[1], Planet Labs[2], and others use satellite remote sensing and artificial intelligence to extract land features from the landscape. Access to these datasets will enable RMP staff to evaluate land features to support our CEC modeling work. For example, PFAS are used in many building products (e.g., roofing materials) and solar panels. Characterizing such features on the landscape will allow us to explore relationships between CEC concentrations and the spatial extent of such features. This characterization is at the core of our approach to obtain preliminary estimates of stormwater CEC loads. Funds from this proposal will allow RMP staff to explore a range of potential datasets, conduct a simple evaluation of a sample dataset (if available), and contact potential vendors. These data will be useful for improved watershed modeling and help identify priority locations for future monitoring. Findings from this project will support the development of the CEC modeling workplan and will be included in the project report.

Estimated Cost:	$20K	
Oversight Group:	SPLWG	
	Proposed by:	Pedro Avellaneda, Matthew Heberger, Kelly Moran
	Time Sensitive:	Yes, to support ongoing development of CECs modeling workplan

PROPOSED DELIVERABLES AND TIMELINE

Deliverable	Due Date
Section in Draft CEC modeling workplan	Fall 2024
Section in Final CEC modeling workplan	December 2024

[1] https://www.ecopiatech.com/
[2] https://www.planet.com/

Datasets for modeling of stormwater loads of contaminants of emerging concern – 2024 RMP Reserve funding request

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

MEMORANDUM

Date: July 29,2024
To: RMP Steering Committee
From: Amy Kleckner and Jay Davis
Subject: Undesignated Funds Approval

This memo documents the request and approval of allocating $79,000 of RMP undesignated funds to complete Phase 3 of the Watershed Dynamic Model (WDM) project.

On June 18, 2024 an email was sent to Steering Committee members requesting the review of three proposals and asking approval for immediate funding using Undesignated Funds. On June 28, 2024 the responses were in consensus to approve only one of the proposals: the revised WDM Phase 3 project plan and budget as proposed by Dr. Matthew Heberger and copied below. The two proposals not approved for immediate funding will be discussed at the August 12th Steering Committee meeting.

Memo

From: Matthew Heberger

To: RMP Technical Review Committee

Date: April 23, 2024

Re: Revised WDM Phase 3 project plan and budget request

This memo describes the revised workplan and budget for Phase 3 development of the Watershed Dynamic Model (WDM). This project was funded by the RMP in 2022 and 2023, in the following projects: 3022.29 and 3023.29. **SFEI is requesting an additional $79,000 budget allocation to complete this project.**

As of April 2024, the project is behind schedule and likely to go over budget, based on spending to date and project progress. The reasons for this are twofold. First, SFEI's lead watershed modeler, Tan Zi, left the organization in June 2023. (Currently, SFEI has two relatively new hydrologist/ modelers, Pedro Avellaneda and Matthew Heberger.)

Second, the project has been more difficult and complex than anticipated. Estimating "potency factors" (concentrations in soil and sediment) for PCBs is not straightforward. Stakeholders in the stormwater community wished to provide a great deal of input. Their keen interest is understandable given (a) their significant expertise and experience with monitoring and modeling of PCBs in the last decade under the regional stormwater permit, and (b) the potential for extensive and costly regulation in the forthcoming revised regional permit.

Work Breakdown Structure

This project plan includes a Work Breakdown Structure (WBS)[1] and Gantt Chart, hosted in smartsheet. An excerpt is shown in **Figure 1**, and the full, live version is online at:

https://app.smartsheet.com/b/publish?EQBCT=813258dc74024fb8a8045fa0cfed9e54

[1] A WBS should show all the tasks and substasks that are need to complete the project. (A rule of thumb is that no element of the work breakdown should be over 40 hours.) The Gantt, or waterfall chart, shows the sequence and timing of tasks (shown as bars) and milestones (diamonds). An additional field shows the percent complete (to be reported by staff and the project manager). Comparing this to the percent of time elapsed is useful to assess the risk of overruns and delays.

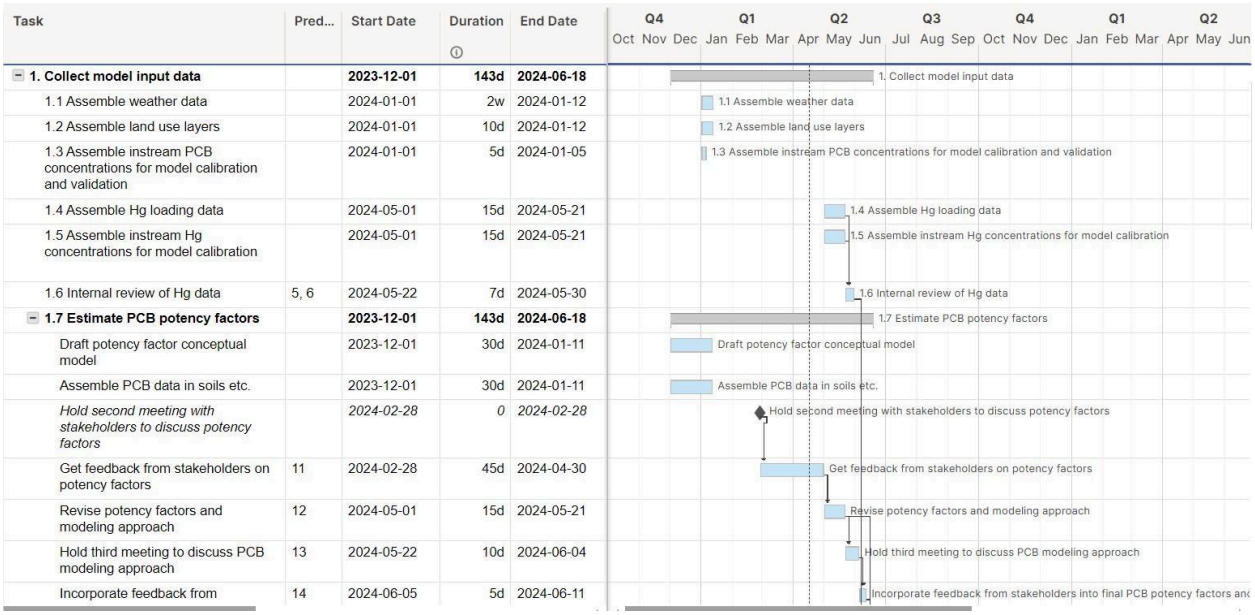


Figure 1 Work breakdown and Gantt chart. Link to online version.

The main tasks to complete the project are:

1. Collect model input data
2. Set up and calibrate model
3. Report writing
4. Create data sharing portal

Revised Schedule and Deliverables

Table 1 shows the original and revised deliverables and schedule.

We propose to drop one element of the planned study from Phase 3 – the analysis of the effects of current and future Green Stormwater Infrastructure (GSI). This is a complex and data-intensive undertaking, and we wish to do it in careful consultation with the stakeholders, particularly the Regional Water Board and the Bay Area Municipal Stormwater Collaborative (BAMSC). We plan to include this task (analysis of GSI) in next year's Phase 4 of WDM development.

Table 1 Deliverables and schedule.

Deliverable	Old	Revised
Model data collation and preparation	Summer 2023	June 2024
~~Control measures impact estimation~~	Fall 2023	Proposing to cancel, move to Phase 4
Draft modeling report for peer review	Fall 2023	Sept 2024
Final modeling report and data sharing portal	Winter 2023	Nov 2024

Revised Budget

The additional budget requested to complete Phase 3 WDM development is shown in **Table 2**.

Table 3 shows the original budget and job-to-date spending. All expenses are for SFEI labor. We estimate the amount needed to complete the project is $79,313 ($118,332 needed minus $39,019 in remaining funds).

Therefore, SFEI respectfully requests the RMP Steering Committee to authorize an additional $79,000 for this project.

Table 2 Budget to complete WDM Phase 3 development. [Source]

Staff member	1. Potency Factors	2. Modeling	3. Report	4. Data Portal	5. Project management	Total Hours	Expense
Matthew Heberger	60	80	64	12	18	234	$35,802
Pedro Avellaneda	54	120	40		6	220	$33,660
David Peterson	90	24	40	2	6	162	$19,440
Kyle Stark	50	40	40	2	6	138	$18,216
Alicia Gilbreath	8		4	1		13	$2,145
Lester McKee	8	10	12	1		31	$6,045
Jay Davis	8		4			12	$3,024
Total	**278**	**234**	**192**	**18**	**36**	**810**	**$118,332**

Table 3 Budget, spending to date, and remaining project funds.

Task	Budget	Spent as of end of March 2024	Remaining Funds
3022.29	$125,400	$112,770	$12,630
3023.29	$130,000	$103,611	$26,389
			$39,019

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

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
- 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

Bay RMP Deliverables Stoplight Report_new

	Focus Area	Project	Task	Deliverable	Assigned To	Due Date	Old Due Date	Days overdue	Due Date Extended (external delay)	Due Date Extended (internal delay)	# of extensions	Status	Comments
1	142758	RMP SEP	20. MTC Bay Area Land Use Update	Collect and transform data relevant to RMP Stakeholders	Tony Hale	04/30/23	03/31/21	1216			3		5/24/24 - Proposal for SFEI to take on this work completed by Tony, reluctance to spend RMP SFEI funds to satisfy MTC's needs. 3/18/24 - Tony has asked Melissa and Pete to develop a cost estimate for SFEI to update and maintain the data layer on a 2 year interval. 10/13/23 - SFEI met with MTC. MTC will be releasing the dataset with our (SFEI) enhancements/fixes per Kearey dataset would be published to data.ca.gov soon "a few weeks" 9/29/23 - Tony has added Tom M. and Amy K. to email communications with MTC. Still no specific release date.
2		Bay RMP (2023)	Special Study: Suspended Sediment in LSB-Year 2	Report detailing data collection, turbidity-to-SSC calibrations, and limited, descriptive interpretation	Scott Dusterhoff	07/31/24	04/30/24	90			3		6/27/24 - Being finalized. 5/24/24 - Report is in review. 4/2/24 - Lilia is the lead on this project. Plan to submit the report on 5/10.
3		Bay RMP (2021)	3. QA and Data Services	QA Summary Report for 2021 S&T Activities	Don Yee	08/12/24	09/30/22	668			9		7/29/24 - Expected to complete by 8/12. 3/18/24 - Miguel is working thru ancillary data QA. 1/9/24 - Waiting on ancillary data to be QA'd by DS. 10/24/23 - Many 2021 datasets are still pending various steps in the QA process. AXYS Bps & OPEs just added to review list, chl-a CN still in completeness check, POC in formatting. 9/6/23 - Data has been delivered from AXYS, waiting on DS to confirm which data sets have been received.
4		Bay RMP (2022)	3. QA and Data Services	QA Summary Report for 2022 S&T Activities	Don Yee	08/12/24	09/30/23	303			3		7/29/24 - Estimates completion by 8/12 5/28/24 - In DS queue for formatting and QA review 3/18/24 - Bird egg data from AXYS still coming in.
5	Emerging Contaminants	RMP SEP	19. Quaternary Ammonium Compounds (QACs) in Bay Area Wastewater	Technical Memo	Rebecca Sutton	08/31/24	08/31/22				2		4/2/24 - Report in review by ECWG. 1/8/24 - Draft report received from Anna (UMN?), coordinating data delivery with DS. Additional funding from NSF increased the scope of the project. The ECWG agreed to the suggested revised due dates for the deliverables so they can include the additional data.
6		RMP SEP	24. Regional Watershed Spreadsheet Model	Updated model and Final Technical Report	Alicia Gilbreath	08/31/24	12/31/23	211			1		7/17/24 - Model has been updated, report in progress. 5/30/24 - Pedro has begun work and aims to complete by end of June 3/18/24 - Still waiting on land use update. Jan. 2023 - Waiting for land use update SEP issue date 6/5/2021.
7		RMP SEP	25. Sediment Deposition on South Bay Marsh (Whales Tail)	Final Report	Scott Dusterhoff	08/31/24	04/01/24	119			3		7/10/24 - Manuscript is in external review, plan to submit to Earth Surface Processes and Landforms. 6/3/24 - Paper is currently in co-author review, planning to submit next month 3/18/24 - Submission is planned for this month. 10/23/23 - Work is being done by Lacy and Thorne (USGS) Draft report estimated to be completed by Feb 2024.
8		Bay RMP (2020)	6. Status and Trends Monitoring	Final Margins report	Don Yee	08/31/24	12/31/21	941			8		7/29/24 - DS is continuing to work on redoing the figures. 3/18/24 - DS continuing work on reanalysis. Due date delayed. 1/11/24 - Data services will prioritize the reanalysis. 9/6/23 - Re-analyses on some ancillary vs target analytes to be done. Limited staff capacity to do the statistical reanalysis requested. 8/16/23 - Sent to Richard L. and Luisa V. for feedback.
9		Bay RMP (2021)	F. 2021 Bird Egg Data Mgmt	Processing and upload bird egg data	Adam Wong	08/31/24	10/31/22	637			4		5/21/24 - Waiting on AXYS to report PCBs results. 3/18/24 - In DS queue for formatting and QA review. 1/9/24 - All samples have been delivered to the labs. AXYS: PFAS data has been reported, PCBs and PBDEs expected end of Jan., pesticides? Hg and Se results from MLML are with SFEI DS. 11/30/23 - Samples shipped to USGS, FedEx delays caused samples to arrive at USGS completely thawed. USGS will ship to the analytical partners in Dec. Dry ice shortage causing delay.
10		Bay RMP (2021)	DMMO Database	DMMO Database Enhancements	Cristina Grosso	08/31/24	12/31/21	941			4		7/29/24 - On track to complete by due date 1/11/24 - Still waiting on final templates from Exa, expect to get them by end of Jan, Given Michael will be on leave for 1.5 months completion now expected end of summer 2024 12/5/23 - Exa templates are in final review stages.
11		Bay RMP (2023)	Ethoxylated surfactants in ambient water, margin sediment, wastewater, Part 2 (year 2of 2)	Task 3. Complete laboratory analysis of samples	Diana Lin	08/31/24	01/30/24	181			3		7/25/24 - Lee hoping to have analyses done in the next few weeks. 6/20/24 - Standards needed for analysis on backorder won't arrive until late July at the earliest. Not likely to get sediment data this summer. 5/30/24 - External delay due to analytical instrument fixes needed. 4/2/24 - Unlikely that Duke will deliver results by end of April. Diana L. to follow up with Lee F. 1/11/24 - Per 2023 discussions with Lee F. (Duke) the new deadline for lab analysis has been defined as April 2024. 5/29/23 - Duke University will be conducting analysis.
12		Bay RMP (2023)	Nontargeted Data Mining	Task 4. Spreadsheet of compiled data mining results	Rebecca Sutton	08/31/24	07/30/24	-1			1		7/29/24 - Nearing completion and will be sent out with CEC Strategy in August.
13		Bay RMP (2024)	4. Annual Reporting	RMP Pulse Draft	Jay Davis	08/31/24							
14		Bay RMP (2024)	5. Communications	RMP Update to BACWA	Amy Kleckner	08/31/24							
15		Bay RMP (2024)	5. Communications	RMP Update to BPC	Amy Kleckner	08/31/24							
16		Bay RMP (2024)	I. 2024 S&T Lab Intercomp Studies	Complete contracts	Beth Birmingham	08/31/24							
17		Bay RMP (2024)	L. 2024 Sport Fish Monitoring	Complete contracts	Beth Birmingham	08/31/24	06/01/24	58					7/24/24 - Contracts under review 5/24/24 ICF contract finalized, MLML & SGS AXYS contracts waiting until fish collections begin.
18		Bay RMP (2024)	50. Stormwater CECs Monitoring & Modeling 2024	Presentation to SC/TRC	Rebecca Sutton	08/31/24							
19		Bay RMP (2021)	26. Integrated watershed modeling and monitoring implementation strategy	Complete integrated watershed modeling and monitoring implementation strategy - Final report	Lester McKee	09/01/24	09/01/21	1062			6		7/18/24 - Internal Review in progress 8/16/23 - Draft report to be completed by June 2024. Lester McKee will replace Tan Zi as lead author. Revised timeline discussed with Tom Mumley.

	Focus Area	Project	Task	Deliverable	Assigned To	Due Date	Old Due Date	Days overdue	Due Date Extended (external delay)	Due Date Extended (internal delay)	# of extensions	Status	Comments
20		Bay RMP (2022)	Special Study: Sediment delivery to marshes in C&N Bay	Report	Melissa Foley	09/01/24	12/01/23	241					Jessie Lacy and Karen Thorne (USGS) doing the work
21		Bay RMP (2024)	4. Annual Reporting	2024 Annual Meeting Agenda	Jay Davis	09/01/24							
22		Bay RMP (2024)	L. 2024 Sport Fish Monitoring	Successful collection of samples	Jay Davis	09/01/24							
23		Bay RMP (2024)	38. NTA of SF Bay Fish, Yr 1	Collect Samples	Rebecca Sutton	09/01/24							
24		Bay RMP (2021)	21. Impact of Remediation Actions on San Leandro Bay Recovery from PCB Contamination	Task 5: Final technical report	Diana Lin	09/15/24	12/31/22	576			6		7/29/24 - Yeo-Myoung will be returning in August, Diana to follow up and see if this can be finalized quickly. 5/30/24 - Still waiting on comments from Frank Gobas 4/2/24 - Waiting on comments from Frank Gobas, early May is new estimated timeline for deliverable. 3/18/24 - Currently under review with PCBWG, comments requested by 3/23, aiming for finalization by 4/15. 1/11/24 - Internal review is complete, Stanford is leading the revisions. PCBWG to review in Feb and aiming for final report in Mar. 2024. 10/24/23 - Undergoing internal review, next to be reviewed the PCBWG.
25		Bay RMP (2023)	Special Study: Sediment Delivery to Marshes in C&N Bays: project expansion	Report (draft paper) investigating the relationships between SSC in the shallows, SSC at long-term channel stations, and sediment accretion on marshes	Melissa Foley	09/15/24					1		Jessie Lacy and Karen Thorne (USGS) conducting this work
26		Bay RMP (2024)	4. Annual Reporting	RMP Pulse Final and send to printer	Jay Davis	09/20/24							
27		Bay RMP (2024)	2. Governance	September TRC Meeting	Amy Kleckner	09/22/24							
28		Bay RMP (2022)	Special Study: CEC in Urban Stormwater Year 4	Management summary	Rebecca Sutton	09/30/24	09/30/23	303			3		7/24/24 - Making progress, prioritized behind the 2024 Pulse 4/10/24 - Delayed until summer, after ECWG etc. 3/18/24 - Manuscript submitted on 3/5. 1/9/24 - Expect after manuscript is submitted, manuscript draft expected to be distributed for external review by end of Jan. 9/6/23 - Draft manuscript is expected in October. Final manuscript expected to be submitted for publication by the end of the year.
29		Bay RMP (2022)	Special Study: PCB In-Bay contaminant modeling (SLB)	Draft Report	Jay Davis	09/30/24	05/01/22	820			3		7/24/24 - Draft report in progress. 5/24/24 - Draft report not quite ready, a detailed progress report to be provided at the PCBWG meeting. 8/16/23 - Draft report to be completed by May 2024. Revised timeline approved by the PCBWG in June 2023.
30		Bay RMP (2022)	Special Study: STLS WY21 POC Recon Monitoring	Update data for the Advanced Data Analysis (ADA)	Alicia Gilbreath	09/30/24	06/30/23	395			3		7/25/24 - Waiting on input from Lisa S and some of the data, estimate completion 12/31/24 5/30/24 - Still waiting on input from Lisa S. 3/18/24 - Waiting on response/ input from BAMSC. 1/9/24 - Lester to follow up with Lisa Sabin to discuss next steps. 12/5/23 - WB and BAMSC are interested in providing input but need more time to coordinate. 7/18/23 - In Dec 2021 it was decided to forgo the report and instead update data for the ADA.
31		Bay RMP (2023)	Special Study: STLS WY21 POC Recon Monitoring	Laboratory analysis, QA, & Data Management	Alicia Gilbreath	09/30/24							7/25/24 - Data is ready for QA, prioritized behind 2024 Pulse data sets.
32		Bay RMP (2024)	5. Communications	Q3 RMP eUpdate	Amy Kleckner	09/30/24							
33		Bay RMP (2024)	5. Communications	RMP Update to BAMSC	Amy Kleckner	09/30/24							
34		Bay RMP (2024)	5. Communications	RMP Update to LTMS	Amy Kleckner	09/30/24							
35		Bay RMP (2024)	5. Communications	RMP Update to WSPA	Amy Kleckner	09/30/24							
36		Bay RMP (2024)	5. Communications	RMP Update at RB2 Meeting	Amy Kleckner	09/30/24							
37		Bay RMP (2024)	5. Communications	Updates to RMP website - Q3	Martin Trinh	09/30/24							
38		Bay RMP (2024)	C. 2024 Dry season water sampling	Collect samples	Jennifer Dougherty	09/30/24							7/17/24 - scheduled for 8/12 & 8/14
39		Bay RMP (2024)	K. 2024 S&T Field Sampling Report & Support	Annual Lab Clean Up	Martin Trinh	09/30/24	06/30/24	29			1		
40		Bay RMP (2024)	N. NB Se Monitoring	Sampling and analysis proposal for 2025 S&T Monitoring presented to TRC	Amy Kleckner	09/30/24							
41		Bay RMP (2024)	40. OPEs, BP, and Other Plastic Additives in Wastewater	Collect Samples	Rebecca Sutton	09/30/24							
42		Bay RMP (2024)	30. Integrated Monitoring & Modeling for PCBs and Hg Phase 1	Lab analysis, QA, & data mgmt.	Alicia Gilbreath	09/30/24							7/25/24 - PCB data still not received from AXYS.
43		RMP SEP	32. Temporal variability in sediment delivery to a North and Central SF Bay Salt Marsh	Data made publicly available	Melissa Foley	10/01/24							
44		Bay RMP (2024)	4. Annual Reporting	Annual Meeting	Amy Kleckner	10/16/24							
45		Bay RMP (2024)	2. Governance	October SC Meeting	Amy Kleckner	10/20/24							
46		Bay RMP (2024)	1. Program Management	Update Deltek Program Plans for Open RMP Years	Beth Birmingham	10/24/24							

	Focus Area	Project	Task	Deliverable	Assigned To	Due Date	Old Due Date	Days overdue	Due Date Extended (external delay)	Due Date Extended (internal delay)	# of extensions	Status	Comments
47		Bay RMP (2023)	37. Tire and roadway contaminants in wet season Bay water (year 2 of 2)	Task 4. QA/QC, data management, and data upload	Rebecca Sutton	10/30/24							
48		RMP SEP	23. Integrated Watershed Bay Modeling Strategy and Pilot Implementation	Report	Lester McKee	10/31/24	12/31/23	211			2		7/25/24 - Draft possible by end of August, final report possible end of October. 8/16/23 - Draft report to be completed by June 2024. Lester McKee will replace Tan Zi as lead author. Revised timeline discussed with Tom Mumley.
49		Bay RMP (2022)	Special Study: PCB In-Bay contaminant modeling (SLB)	Final report	Jay Davis	10/31/24					1		8/16/23 - Draft report to be completed by May 2024. Revised timeline approved by the PCBWG in June 2023.
50		Bay RMP (2023)	D. 2023 Dry season Bay Water Cruise Data Mgmt	Process and upload dry season Bay water cruise data	Adam Wong	10/31/24	01/31/24	180			2		3/18/24 - In DS queue for formatting and QA review.
51		Bay RMP (2023)	H. Nearfield and margins sediment & prey fish data mgmt.	Process and upload sampling data	Adam Wong	10/31/24	02/28/24	152			2		3/18/24 - In DS queue for formatting and QA review.
52		Bay RMP (2023)	M. Ambient Bay sediment data mgmt.	Process and upload sampling data	Adam Wong	10/31/24	02/28/24	152			2		3/18/24 - In DS queue for formatting and QA review.
53		Bay RMP (2024)	G. 2024 Bird Egg Sampling	Complete contracts	Amy Kleckner	10/31/24	01/31/24	180			3		5/24/24 - MLML & SGS AXYS contracts drafted, will be finalized by the end of the year for analysis in 2025. 3/28/24 - USGS contract finalized, SGS and MLML contracts to be completed in April 2024 for work in April 2025. 3/18/24 - Nearly complete, delayed as we work out details to improve past issues with processing and shipping.
54		Bay RMP (2024)	K. 2024 S&T Field Sampling Report & Support	Post dry field season garage clean up	Martin Trinh	10/31/24							
55		Bay RMP (2022)	Special Study: PCBs in sediment and fish SS/RC	Technical Report	Jay Davis	11/01/24	08/01/24	-3			1		7/25/24 - Waiting on DS 10/31/23 - We have received the sediment data from AXYS, but per Adam "there's programming work goin on to resubmit the fish data."
56		Bay RMP (2024)	1. Program Management	2025 Multi-Year Plan	Amy Kleckner	11/01/24							
57		Bay RMP (2024)	1. Program Management	2025 Detailed Workplan and Budget	Amy Kleckner	11/01/24							
58		Bay RMP (2024)	1. Program Management	2024 Q3 RMP Financial Report	Beth Birmingham	11/01/24							
59		Bay RMP (2024)	1. Program Management	SC Meeting Stoplight Report	Amy Kleckner	11/01/24							
60		Bay RMP (2024)	**M. 2024 Sport Fish data mgmt.**	Process and upload sampling data	Adam Wong	11/01/24							
61		Bay RMP (2024)	42. Continuous SSC and Wave Monitoring in SB and LSB, Yr. 3	Report	Scott Dusterhoff	11/01/24							
62		Bay RMP (2023)	Ethoxylated surfactants in ambient water, margin sediment, wastewater, Part 2 (year 2of 2)	Task 6. Final report	Diana Lin	11/30/24							
63		Bay RMP (2023)	Special Study: STLS Regional Model Development (WDM Phase 3)	Final modeling report and data sharing portal	Matt Heberger	11/30/24	12/30/23	212			1		5/24/24 - Memo dated 4/23 requesting additional funding and revised timeline to be sent to the SC. 3/18/24 - Matt H. is being onboarded to assume this work. 10/25/23 - Tan's departure delayed deliverables associated with this project. Revised timeline in development.
64		Bay RMP (2023)	Special Study: PCBs in sediment and fish SS/RC (Year 2)	Final Technical Report	Jay Davis	11/30/24					1		7/25/24 - Waiting on DS 10/31/23 - We have received the sediment data from AXYS, but per Adam "there's programming work goin on to resubmit the fish data."
65		Bay RMP (2024)	2. Governance	December TRC Meeting	Amy Kleckner	12/09/24							
66		Bay RMP (2023)	Special Study: Sediment Delivery to Marshes in C&N Bays: project expansion	Presentation to Bay Delta Science or State of the Estuary Conference	Melissa Foley	12/30/24							Jessie Lacy and Karen Thorne (USGS) conducting this work
67		Bay RMP (2024)	P. PFAS and NTA in Marine Mammals (Yr 2)	Sample collection	Rebecca Sutton	12/30/24							
68		RMP SEP	29. PFAS in Archived Sport Fish Communications Supplement	Manuscript	Miguel Mendez	12/31/24	12/31/23				4		7/29/24 - Prioritized behind 2024 Pulse 6/3/24 - Work is underway 3/18/24 - Prioritized behind work on ECWG strategy and proposals and QACs report. Submission delayed until summer 2024. 1/8/24 - Draft under review
69		RMP SEP	30. Analysis and Reporting of NTA Sediment Data	Manuscript	Ezra Miller	12/31/24	12/31/23				3		7/24/24 - Data mining needed to come first. 3/18/24 - Work on this has slowed, prioritized behind CEC strategy revisions. 1/8/24 - In prep and distributing to analytical partners for review. Continuation of 3018-036.
70		RMP SEP	30. Analysis and Reporting of NTA Sediment Data	Fact Sheet	Ezra Miller	12/31/24	12/31/23				3		7/24/24 - Data mining needed to come first. 3/18/24 - Work on this has slowed, prioritized behind CEC strategy revisions. 1/8/24 - In prep and distributing to analytical partners for review. Continuation of 3018-036.
71		Bay RMP (2021)	Selenium in Clams	Task 4. Draft Report	Amy Kleckner	12/31/24	12/31/22	576			3		7/29/24 - Still waiting on USGS data release 3/18/24 - Estimated completion in summer 2024, USGS data release coming soon. 10/24/23 - Waiting for DS to complete QA. delayed to allow for 2022 collections before working on the report
72		Bay RMP (2022)	Special Study: Stormwater monitoring strategy for CEC's	Final strategy (approach) document	Kelly Moran	12/31/24	09/01/23	332			1		4/2/24 - New timeline is estimated to finish by end of 2024. 9/6/23 - Tan's departure delayed deliverables that went into the development of this strategy document. Requires insights from ongoing modeling and data science special studies. Pending additional remote sampler design to improve functionality for other CECs. Remote sampler had some technical challenges and we are looking to our advisors for consultation on priorities and next steps. Revised timeline depends on hiring process.

	Focus Area	Project	Task	Deliverable	Assigned To	Due Date	Old Due Date	Days overdue	Due Date Extended (external delay)	Due Date Extended (internal delay)	# of extensions	Status	Comments
73		Bay RMP (2022)	Special Study: Ethoxylated surfactants in ambient water, margin sediment, wastewater. Part 2	Final Report	Diana Lin	12/31/24	08/31/23	333			2		10/24/23 - Revised timeline. Draft report in development. Delay from analytical laboratory to analyze remaining sediment and wastewater samples, expected final laboratory results by end of spring 2024. Final report expected 12/31/24. 7/18/23 - Jennifer D. collecting samples this week. Waiting for updated dataset from DS to begin report. Plan is to start drafting report as soon as data is received from DS but Duke U. has still not analyzed sediment and second round of wastewater. A draft may be completed by end of the year, but final report not expected until later.
74		Bay RMP (2022)	Special Study: DMMO Database Enhancements	Make testing results accessible on the DMMO website	Cristina Grosso	12/31/24	12/31/22	576			3		1/11/24 - Need to complete task 3021-046 first, timeline updated. 9/11/23 - Don't foresee any issues with completing these tasks on budget and schedule. However, the DMMO Project Team has asked us to prioritize the data template testing and database enhancement work first.
75		Bay RMP (2023)	3. QA and Data Services	QA Summary Report for 2023 S&T Activities	Don Yee	12/31/24	09/30/24	-63			1		
76		Bay RMP (2023)	Ethoxylated surfactants in ambient water, margin sediment, wastewater, Part 2 (year 2of 2)	Task 4. QA/QC and data management	Diana Lin	12/31/24	04/30/24	90			2		7/25/24 - Lab analyses expected to be completed by end of August 6/20/24 - Standards needed for analysis on backorder won't arrive until late July at the earliest. Not likely to get sediment data this summer. 5/30/24 - External delay due to analytical instrument fixes needed. 4/2/24 - Unlikely that Duke will deliver results by end of April. Diana L. to follow up with Lee F.
77		Bay RMP (2023)	PFAS in Archived Sport Fish	Task 6. Final report	Miguel Mendez	12/31/24	12/30/23	212			4		7/29/24 - Prioritized behind the 2024 Pulse 6/3/24 - Work is underway. 3/18/24 - Prioritized behind work on ECWG strategy and proposals and QACs report. Submission delayed until summer 2024. 1/8/24 - Draft under review 10/24/23 - Draft manuscript expected by early Nov. Submission for publication by the end of the year. Deliverable will be satisfied thru manuscript for SEP 29.
78		Bay RMP (2023)	Special Study: Sediment Flux Richmond Bridge	Data release	Scott Dusterhoff	12/31/24	05/11/23	445			1		9/15/23 - Per David Hart at USGS: work will not move forward in WY24, but do expect it to happen in WY25 as part of a larger project with the possibility of increased funding from other groups.
79		Bay RMP (2023)	Special Study: Ground work CEC Stormwater/ Stormwater monitoring for CECs strategy	Final Brief Report as a presentation to SST and an appendix to Stormwater CEC approach	Kelly Moran	12/31/24	12/31/23	211					4/3/24 - Presentation to the SST was completed in 9/2023, appendix will be completed on same timeline as the approach doc. 1/9/24 -Delayed until completion of the Stormwater CECs approach final strategy document (SS 2022).
80		Bay RMP (2024)	1. Program Management	RMP Participation Letters for BACWA and WSPA Agencies	Amy Kleckner	12/31/24							
81		Bay RMP (2024)	1. Program Management	Honoraria Payments to Science Advisors	Amy Kleckner	12/31/24							
82		Bay RMP (2024)	3. QA and Data Services	Online Data Access CD3	Cristina Grosso	12/31/24							
83		Bay RMP (2024)	3. QA and Data Services	Database Maintenance	Adam Wong	12/31/24							
84		Bay RMP (2024)	3. QA and Data Services	Updates to SOPs and Templates	Adam Wong	12/31/24							
85		Bay RMP (2024)	3. QA and Data Services	DMMO Database Support	Cristina Grosso	12/31/24							
86		Bay RMP (2024)	5. Communications	Q4 RMP eUpdate	Amy Kleckner	12/31/24							
87		Bay RMP (2024)	5. Communications	Updates to RMP website - Q4	Martin Trinh	12/31/24							
88		Bay RMP (2024)	G. 2024 Bird Egg Sampling	Sampling and Analysis Plan	Amy Kleckner	12/31/24	02/28/24	152			3		7/17/24 - Draft in external review, analysis planned for 2025. 5/24/24 - Draft in review. 3/18/24 - Waiting on finalization of shipping and processing plans.
89		Bay RMP (2024)	**H. 2024 Bird Egg Data Mgmt**	Processing and upload bird egg data	Adam Wong	12/31/24							
90		Bay RMP (2024)	J. 2024 Sample Archive	Update RMP Archives database	michaelw@sfei.org	12/31/24							
91		Bay RMP (2024)	K. 2024 S&T Field Sampling Report & Support	Field Reports Reviewed and posted to website	Amy Kleckner	12/31/24							
92		Bay RMP (2024)	L. 2024 Sport Fish Monitoring	Sport Fish Report	Jay Davis	12/31/24							
93		Bay RMP (2024)	R. WDM Model Maintenance	Update model development log	Pedro Avellaneda	12/31/24							
94		Bay RMP (2024)	31. Tidal Area Remote Sampler Pilot - Yr 2	Data upload to CEDEN	Don Yee	12/31/24							
95		Bay RMP (2024)	1. Program Management	2024 Q4 RMP Financial Report	Beth Birmingham	01/31/25							
96		Bay RMP (2024)	**D. 2024 Dry season water Data Mgmt**	Process and upload dry season water sample data	Adam Wong	01/31/25							
97		Bay RMP (2024)	40. OPEs, BP, and Other Plastic Additives in Wastewater	Final Report	Rebecca Sutton	01/31/25							
98		Bay RMP (2024)	31. Tidal Area Remote Sampler Pilot - Yr 2	Draft Report	Don Yee	01/31/25							
99		Bay RMP (2023)	F. 2023 Wet season water data mgmt.	Process and upload wet season water sampling data	Adam Wong	02/28/25	10/31/24	-94					7/17/24 - Will complete with 2024 dry season data, estimated delivery from lab 12/31/24.
100		Bay RMP (2023)	Special Study: STLS WY21 POC Recon Monitoring	Interpretation & reporting for BAMSC	Alicia Gilbreath	02/28/25							
101		Bay RMP (2024)	**F. WY24 Wet season water data mgmt.**	Process and upload wet season water sampling data	Adam Wong	02/28/25	10/31/24	-94			1		7/17/24 - Will complete with 2024 dry season data.
102		Bay RMP (2024)	**Q. Marine Mammals data mgmt.**	Process and upload sampling data	Adam Wong	02/28/25							

	Focus Area	Project	Task	Deliverable	Assigned To	Due Date	Old Due Date	Days overdue	Due Date Extended (external delay)	Due Date Extended (internal delay)	# of extensions	Status	Comments
103		Bay RMP (2024)	51. PFAS in Bay Water using the TOP Assay	Final Report	Rebecca Sutton	02/28/25							
104		Bay RMP (2024)	21. Monitoring of Sediment Deposition in SLB Intertidal Areas	Draft Report	Don Yee	02/28/25							
105		Bay RMP (2024)	I. 2024 S&T Lab Intercomp Studies	Presentation to the TRC on findings from IC studies.	Don Yee	03/01/25							
106		Bay RMP (2021)	Selenium in Clams	Task 5. Final Report	Amy Kleckner	03/31/25	02/28/23	517			3		7/29/24 - Still waiting on USGS data release 3/18/24 - Estimated completion in summer 2024, USGS data release coming soon. 10/24/23 - Waiting for DS to complete QA. delayed to allow for 2022 collections before working on the report
107		Bay RMP (2024)	3. QA and Data Services	QA Summary Report for 2024 S&T Activities	Don Yee	03/31/25							
108		Bay RMP (2024)	31. Tidal Area Remote Sampler Pilot - Yr 2	Final Report	Don Yee	03/31/25							
109		RMP SEP	32. Temporal variability in sediment delivery to a North and Central SF Bay Salt Marsh	Final Report	Melissa Foley	04/01/25							
110		RMP SEP	26. PFAS & Chlorinated Paraffins in Bay Sediment	Report	Rebecca Sutton	04/04/25							
111		Bay RMP (2024)	37. Tire and Roadway Contaminants in Wet Season Bay Water, Yr 3	Presentation at ECWG	Rebecca Sutton	04/30/25							
112		Bay RMP (2024)	39. PFAS Synthesis & Strategy	Final Report	Rebecca Sutton	04/30/25							
113		Bay RMP (2024)	21. Monitoring of Sediment Deposition in SLB Intertidal Areas	Final Report and data upload	Don Yee	04/30/25							
114		RMP SEP	27. High speed mapping of water quality parameters on the eastern shoal of South San Francisco Bay	Data release	Ariella Chelsky	06/30/25							
115		RMP SEP	27. High speed mapping of water quality parameters on the eastern shoal of South San Francisco Bay	Technical Report	Ariella Chelsky	06/30/25							
116		Bay RMP (2023)	PFAS and NTA in Marine Mammals (year 1 of 2)	Task 5. Draft manuscript(s)	Rebecca Sutton	06/30/25							
117		Bay RMP (2023)	Special Study: STLS WY21 POC Recon Monitoring	Final report	Alicia Gilbreath	06/30/25							
118		Bay RMP (2024)	P. PFAS and NTA in Marine Mammals (Yr 2)	S&T study design recommendations (technical memo), presentation to TRC.	Rebecca Sutton	06/30/25							
119		Bay RMP (2024)	40. OPEs, BP, and Other Plastic Additives in Wastewater	QA/QC and Data Management	Rebecca Sutton	06/30/25							
120		RMP SEP	28. SF Bay Sediment Transport and Fate Modeling	Technical Report	Dave Senn	09/05/25							
121		Bay RMP (2023)	37. Tire and roadway contaminants in wet season Bay water (year 2 of 2)	Task 7. Final short report	Rebecca Sutton	09/30/25							
122		Bay RMP (2023)	PFAS and NTA in Marine Mammals (year 1 of 2)	Task 6. Final manuscript(s)	Rebecca Sutton	09/30/25							
123		Bay RMP (2024)	44. Spatial variability of sediment accretion in SFB restorations	Data release: soil properties, digital elevation models, and RTK GPS data	Scott Dusterhoff	09/30/25							
124		Bay RMP (2024)	44. Spatial variability of sediment accretion in SFB restorations	Report	Scott Dusterhoff	03/31/26							
125		Bay RMP (2024)	40. OPEs, BP, and Other Plastic Additives in Wastewater	Presentation at ECWG	Rebecca Sutton	04/30/26							
126		Bay RMP (2024)	38. NTA of SF Bay Fish, Yr 1	Presentation to ECWG and TRC	Rebecca Sutton	04/30/26							
127		RMP SEP	31. Investigating HABs in SF Bay	Data made publicly available	Dave Senn	06/30/26							
128		RMP SEP	31. Investigating HABs in SF Bay	Technical Report	Dave Senn	06/30/26							
129		Bay RMP (2024)	38. NTA of SF Bay Fish, Yr 1	Final Manuscript	Rebecca Sutton	09/30/26							
130		Bay RMP (2024)	44. Spatial variability of sediment accretion in SFB restorations	Presentation to RMP	Scott Dusterhoff	09/30/26							

Bay RMP Action Items Stoplight Report_New

	Primary	Deliverable	Assigned To	Due Date	Old Due Date	Days overdue	# of extensions	Due Date Extended (external delay)	Due Date Extended (internal delay)	Status	Comments	Meeting Date
1	Action Items from 06/20/23	Post updated SEP list to RMP website	Martin Trinh	09/04/24	09/04/23	329	2	⚑	⚑	🟡	7/17/24 - List under review by WG leads 1/11/24 - Will be added after a key resources and documents tab is added to special studies page in the new design. 10/25/23 - Prioritized behind new SFEI website template updates. 9/6/23 - will include in Q3 website updates. Extend due date until 9/30.	06/20/23
2	Action Items 9/19/23	Share revised draft of margins report after reanalysis	Don Yee	08/31/24	12/31/23	211	2	⚐	⚑	🟡	7/24/24 - Waiting on DS to redo the figures 3/18/24 - DS continuing work on reanalyses. Due date extended.	**09/19/23**
3	Action Items 06/13/24	Poll WG leads for feedback on governance	Amy Kleckner	09/06/24				⚐	⚐	🟡		06/13/24
4	Action Items 06/13/24	Share TRC feedback on how to ask for review of document to make it more manageable	Amy Kleckner	08/29/24				⚐	⚐	🟡		06/13/24
5	SC Action Items - 01/22/24	Prepare an org chart of SFEI employees that are key players in the RMP for the MYP meeting	Amy Kleckner	11/01/24	08/01/24			⚐	⚐	🟢		01/22/24
6	**November MYP/SC**							⚐	⚐			11/01/23
7	**January SC Mtg**							⚐	⚐			01/22/24
8	**June 2023 TRC**							⚐	⚐			**06/20/23**
9	**September 2023 TRC**							⚐	⚐			**09/19/23**
10	**June 2024 TRC**							⚐	⚐			**06/13/24**