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

Bay RMP Multi-Year Planning Meeting
November 2, 2022

Meeting Summary

Attendees

Member	Affiliation	Representing	Present
Yuyun Shang	EBMUD	POTW	**Remote**
Eric Dunlavey	City of San Jose	POTW	**Yes**
Amanda Roa	Delta Diablo	POTW	**Yes**
Karin North	City of Palo Alto	POTW	**Yes**
Tom Hall	EOA, Inc.	POTW	**Remote**
Mary Lou Esparza	Central Contra Costa Sanitary District	POTW	**Remote**
Xavier Fernandez	San Francisco Bay Water Board	Water Board	**Remote**
Tom Mumley*	SF Bay Regional WQCB	Water Board	**Yes**
Richard Looker	SF Bay Regional WQCB	Water Board	**Yes**
Bridgette DeShields	Integral Consulting	Refineries	**Yes**
Maureen Dunn	Chevron	Refineries	**Yes**
Adam Olivieri	BASMAA (EOA, Inc.)	Stormwater	**Remote**
Chris Sommers	EOA, Inc.	Stormwater	**Remote**
Luisa Valiela	US EPA	US EPA-IX	**Yes**
Ian Wren	Baykeeper	NGOs	**Yes**
Tessa Beach	US Army Corps of Engineers	USACE	**Remote**
John Coleman	Bay Planning Coalition	Dredgers	**Yes**

*Chair; alternates in gray and italicized

Staff and Others

- Jay Davis - SFEI
- Melissa Foley - SFEI
- Rebecca Sutton - SFEI
- Don Yee - SFEI
- Martin Trinh - SFEI
- Scott Dusterhoff - SFEI
- Alicia Gilbreath - SFEI
- Tan Zi - SFEI
- Diana Lin - SFEI (Remote)
- Adam Wong - SFEI (Remote)

1. Introductions and Review Goals for the Meeting

Melissa Foley began the meeting by welcoming everyone to the Multi-Year Planning (MYP) Workshop and the first RMP meeting held in a hybrid format in two and a half years. Following a brief introduction to the technology and hybrid meeting etiquette, Tom Mumley oversaw a round of introductions. Tom then reviewed the agenda items, including Special Study funding for 2024, workgroup direction, and implementation of the revised Status & Trends (S&T) program. Tom concluded the item by reminding the group that a substantial update to the MYP will be made by next year, focusing on strategy and multi-year plan updates at the workgroup level.

2. Discussion: Setting the Scene – Planning for 2023 and Beyond

Melissa opened this agenda item by highlighting the work recently completed by the RMP. The first major work was the ongoing Status & Trends review, beginning with the wet season pilot that started last year in 2021. The In-Bay modeling effort has begun, a cross workgroup collaboration headed by Jay Davis within SFEI and Craig Jones of Integral Consulting providing technical expertise. This effort is supported with RMP Special Study funds, a Supplemental Environmental Project (SEP), and potentially WQIF funding. Melissa highlighted the increased collaboration between workgroups as the work of the RMP continues to integrate across projects to inform management in the region and beyond. Melissa also highlighted the ongoing high demand for RMP studies, particularly for microplastics and tires. Tom cautioned the group that there is an increased reliance on the RMP in this field by other entities as an outgrowth of the RMP's success. This could increase demand and stress on staff and affect budget decisions in the future. Review and possible revision of the PCB TMDL is planned for 2028 with the RMP providing key data.

Melissa provided an overview of the budget for 2023. Core fees for the RMP total $4 million with supplemental CEC monitoring funds providing an additional $430k. SEPs contribute between $300-$600k per year. If the WQIF proposal is awarded by the EPA, there will be an additional $2.9m to fund projects over the next four years. Awardees will be notified in mid-December; if approved funds would be available in spring of 2023.

Melissa proceeded to outline the design modifications to the S&T program. A wet weather pilot will be implemented in WY2023, with one storm sampled in WY2022. Sediment, prey fish, and marine mammal studies will be piloted in 2023, with the marine mammal study beginning as a

special study through the ECWG. This redesign has a strong connection to the Emerging Contaminant strategy update. Tom cautioned that there should be increased scrutiny on determining how much effort should go into monitoring different contaminants. Temporally and spatially, there should be distinct designations for brief screens as opposed to continued monitoring. Melissa noted that this redesign was not static and could change as it is continually reviewed.

Melissa noted that the update to the 2023 MYP is relatively light. Most workgroups have plans developed for 2024 and 2025, but not much beyond that. All workgroups will be reviewing and updating management questions and strategies this upcoming year, including devoting attention to cross-workgroup linkages for management questions and studies. The MYP for 2024 will include more robust multi-year plans for 2025 through 2027.

3. Discussion: Information Priorities for 2023 and Beyond

For this item, Melissa reviewed the RMP management driver table, which includes categories for high priority, low priority, and potential future drivers. High priority management drivers include the municipal regional stormwater permit, the nutrient watershed permit for municipal wastewater, the ongoing 303(d) list and 305(b) report, and TMDLs for PCBs and mercury. Melissa provided an update from recent stakeholder meetings. There is a universal demand for data on PFAS and, after this summer's event, nutrients and harmful algal blooms. PCBs, beneficial use of dredged sediment, and other large events were also identified as key priorities by stakeholders.The refinery stakeholders inquired about expected changes in selenium loadings to the North Bay from the Delta based on the new design for the tunnel project. Past projections from Tetra Tech were based on a two-tunnel system, but the project has been reduced to one tunnel. There is currently no updated analysis of the new configuration. Luisa suggested the analysis and tracking of selenium concentrations in the Delta should be handled by the Delta RMP. Tom noted that the Bay RMP should also stay on top of this. Selenium concentration data will need to be submitted to the State Board for the North Bay selenium TMDL review. Ian Wren noted that communities were surprised by ongoing developments, referencing USGS papers that found deformities in close-proximity communities and acute impacts near refineries.

Tom emphasized that a management priority for the Water Board is tribal and subsistence uses as beneficial uses. At some point in the near future, the Water Board will consider a standards action which designates these uses and accompanying water quality objectives. PCBs will be a major focus in order to protect people who consume fish from the Bay. Chris suggested adding tribal and subsistence uses to the management driver table as a potential future driver. Xavier Fernandez stated that the Water Board has begun the process of reaching out to tribes.

For the 303(d) and 305(b) list updates in March 2023, the Water Board is no longer incorporating new data and is reviewing potential water quality impairment decisions. Richard Looker offered to present a review of the potential decisions to the TRC in March if recommendations are public at that point. Richard informed the group that the data solicitation

for the 2030 update will be in 2026. RMP data are typically uploaded to CEDEN, especially Status and Trends data. This practice may need to be reviewed as more CECs are monitored. The data may be taken out of context, particularly due to the evolving methods and detection limits for contaminants over time.

Action Item:

- Update the RMP Management Decision Table (Melissa Foley, January 1, 2023).

4. Discussion: Status & Trends Monitoring Design

For this agenda item, Melissa updated the group on the Status & Trends redesign and the need for an ongoing review process, particularly for CEC monitoring and pilot activities. Currently, CECs identified as moderate concern in the Tiered Risk-Based Framework may be added to the S&T design if there is a management need and methods are available for analyzing samples. Melissa reviewed the CEC information matrix (expected pathways, existing data/modeling, chemical properties, and toxicity thresholds) that was used during the S&T review to identify which CECs should be included in S&T monitoring, as well as sampling design details for matrix, season, location, frequency, and site type. Tom suggested that sources should be included in S&T monitoring as an early indicator and not for regulatory purposes. Karin cautioned that data such as these should be screened and approved before being uploaded into CEDEN because the context of the data could be lost when data are being used for 303(d)/305(b) updates. Becky reminded the group that data uploads to CEDEN for special studies are approved on a case by case basis by the workgroup. Each special study proposal notes whether data will be uploaded to CEDEN. Eric noted that as more experimental analytical techniques are developed, for PFAS in particular, the data may be difficult to compare. The group understands that, as a public database, CEDEN should be used with caution.

Melissa proceeded to suggest an updated process for reviewing pilot studies, CEC additions to core sampling (sites and analytes), tiered risk-based framework changes, and sampling frequency for legacy contaminants. The suggested process starts with the S&T Review subcommittee (formerly known as the “Council of Wisdom”) reviewing data and logistics and developing questions for ECWG advisors, who will then review S&T data and questions. Their recommendations will be reviewed by the Subcommittee, who will make recommendations to the TRC for approval or refinement. The SC will vote on suggested changes. This review structure follows the process used for the S&T Review and incorporates advisors who can give technical input on design. Tom suggesting discussions of on-ramping new efforts should also be part of the review discussion. The group agreed it would be beneficial to have the stakeholder subgroup convene before advisors. Tom suggested recommendations for additional monitoring outlined in technical reports should be specific and detailed so that a sampling design can be developed. The three-year wet season pilot is a project example that will need review after the three year pilot is finished in spring 2024. Jay recommended reviewing the project sooner, if data are available so that adjustments can be made iteratively. In addition, he highlighted that the ECWG might need to add additional meetings for S&T review, particularly because the

meeting schedule may not align with review timing and the workgroup meeting agenda is already very full.

The group discussed moving model maintenance tasks out of the special studies budget and into the S&T budget or other long-term pot of funding. Tan explained that maintenance priorities include minor improvements and calibrations, hosting the model, and overhead costs amongst others to help support pathway monitoring in the watersheds and Bay. Tan estimated $50k per year for the watershed model, a similar amount for the in-Bay model, and $200k per year for PCB and Hg monitoring and modeling. Tom supports these costs being included in long-term planning, acknowledging that models must be maintained adequately to help inform S&T monitoring and other management needs. The group agreed that this was an important priority. The group will discuss this in more detail in January; model maintenance funding is needed beginning in 2024.

5. Discussion: Multi-Year Plan and Strategy Updates for Workgroups

Melissa reviewed the MYP and workgroup strategy update plan with the group. The SC previously agreed to this update by 2024. The goal for this agenda item was for the group to provide initial guidance on workgroup priorities ahead of the strategy subgroup meetings. The Sediment Workgroup is currently developing a workplan focused on management questions 3-5 (sediment transport monitoring and modeling), and the update for management questions 1-2 (dredging and beneficial use) will commence in 2023. The Emerging Contaminants Workgroup (ECWG) will continue its ongoing strategy update that started in 2022 through 2023. The Microplastics Workgroup (MPWG) will conduct a strategy and management question update in 2023 in concert with statewide efforts. The Sources, Pathways, and Loadings (SPL) Workgroup will conduct a strategy and management question update in 2023. Finally, the PCB Workgroup has been updating its strategy at each workgroup meeting, but Jay noted that a thorough review will be done at the 2023 PCBWG meeting to support the TMDL review. Currently, all workgroups except the PCBWG plan to hold subgroup meetings at the beginning of 2023 to get input on management questions and study priorities, and then produce drafts that will be reviewed by the workgroups in advance of the spring meeting. Workgroup feedback will be further discussed by subgroups, after which final updated management questions, strategies, and MYPs will be completed by October 2023.

RMP workgroup leads outlined their specific plans for their individual workgroup updates. Becky informed the group that the ECWG had formed their subgroup and finished reviewing the management questions. A draft strategy will be released before the workgroup meeting in April, with two additional subgroup meetings planned. Luisa inquired about the workgroup's current workload with Becky assuring the group that as monitoring and modeling work matures and expands, the workgroup will be able to meet information demands. Becky increased strategy funds in the 2023 MYP to account for ongoing stakeholder input and coordination on the strategy revision. Richard Looker reminded the group that as workgroups continued to integrate, governance costs will likely increase. Alicia Gilbreath and Tan Zi followed by explaining their

timeline for the SPL update. Modeling their process on ECWG, they are in the process of forming their core workgroup that will meet in March, followed by their workgroup meeting in April/May. The last SPL strategy update was in 2009, so the group will spend time defining how they relate to and support other workgroups, including connecting across management questions and study priorities. The SPL workgroup has also increased their request for budget allocations from $30k to $40k for 2023. Diana Lin outlined the timeline for the MPWG. They are currently forming a subgroup that will guide this process. With no special studies funding for 2023, the workgroup will be focused on identifying possible future directions. This strategy update will be done in parallel with a statewide effort being funded by the Ocean Protection Council (OPC). Chris Sommers stressed the importance of including RMP stakeholders in the process early on and not at the end. Diana's workplan includes RMP engagement from the onset. Scott Dusterhoff gave an update on the upcoming Sediment workgroup monitoring and modeling workplan, which focuses on management questions 3-5. Management questions 1-2 address dredging impacts, and have been a lower priority for the group in recent years. The strategy update in 2023 will focus on these questions and determine if they remain a low priority for the RMP. There are studies being conducted by the USACE and other regional partners that may satisfy the information needs for questions 1-2. Scott inquired if sediment transport continued to be the priority or if the RMP could conduct dredging related special studies in the near term. These management questions can stay on the table for the moment, but the RMP should set expectations for the future. If the questions are maintained, a strategy workplan will be developed for those questions as well. Tom noted that, similarly to the MPWG, the scope of these efforts requires external non-RMP funding. It is in the RMP's best interest to be a leader in this field, but it will be important to acquire more matching funds in the future.

Opening up discussion, Melissa polled the committees to see if they had any feedback on the process or questions regarding any timing. The group also identified TRC and SC members who could attend the subgroup meetings for each workgroup. Melissa and Tom agreed that these plans are ambitious and requested that workgroups provide updates at SC and TRC meetings. Improved MYPs will have to be realistic about what can be done this year, adjusting their breadth and depth as necessary. If the WQIF funds are awarded, then even more work will be necessary. More time and resources may be required in the future to update plans accordingly. Luisa inquired as to how dependent workgroups are on the RMP Manager, with Melissa clarifying that individual workgroup processes are largely independent. Jay will also help ease this transition to a new RMP Manager.

Melissa proceeded to review identified workgroup priorities for 2024. The in-Bay modeling project, funded by a SEP, crosses the Sed, PCB, and CEC workgroups. The SedWG will likely focus proposals on additional sediment monitoring and modeling studies. The PCB workgroup will propose additional studies on sport fish and sediment in priority margin units. The ECWG is proposing a PFAS synthesis, PFAS TOP assay, ongoing tire contaminants monitoring, OPEs in wastewater, and non-targeted analysis in fish, as well as a tires strategy and stormwater CEC monitoring and modeling along with SPL. The SPL will focus proposals on PCB/Hg monitoring, model maintenance, and developing remote samplers in addition to working with the MPWG on stormwater microplastics monitoring. Karin inquired if there was a methodology for creating new

workgroups if there is an issue that is growing and needs more focused attention. Jay suggested that the TRC and SC decide which workgroups should be meeting based on management priorities. Karin requested a flow chart of what triggers the RMP to make new/spinoff workgroups. This should be documented as well as any external funding, increased needs, and changing workloads and prioritizations. Chris agreed with the need to reflect on the current workgroup structure and suggested reviewing the workgroup list in this meeting annually. The strategy updates in 2023 are likely to inform future workgroup structure.

Finally, the group considered dedicating funding towards event-based monitoring. The RMP already has a generic fire response plan. Richard suggested that response plans could be more agile if the RMP takes the time to develop protocols and plans before events. The group agreed to discuss this in more detail starting in late 2024 after the workgroup strategy updates are done. Staff do not have the bandwidth to focus on this at the moment.

Action Item:

- Document the process for starting a new workgroup (Jay Davis, January 25, 2023)

6. Discussion: Workgroup Scheduling and Agendas

For this action item, Melissa reviewed the priority workgroup agenda items and scheduling plans. With the ECWG and SPLWG continuing to collaborate on CECs, a joint meeting will be held in mid April to discuss monitoring related updates and special study proposals for CECs in stormwater. There will be a SPLWG meeting focused on legacy contaminants in late May. Other workgroup meetings are planned to be spaced out more evenly to prevent staff burnout. Priority agenda items for workgroups include management questions and strategy process updates, MYP development, reviewing 2024 proposals, reviewing relevant related proposals from other workgroups, and project updates.

Luisa inquired about the staffing at SFEI. Melissa assured her that SFEI would be hiring more personnel in the event that WQIF funding was secured, although the number of hires and at what level is still being determined.

7. Summary and Action Items

Melissa reviewed the action items to be completed. The group collectively thanked Melissa Foley for her tenure as RMP Manager, expressing deep appreciation for her excellent work and expertise and tireless efforts managing the RMP.

Adjourn