

Bay RMP Technical Review Committee Meeting

December 7, 2023



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REGIONAL MONITORING
PROGRAM FOR WATER QUALITY
IN SAN FRANCISCO BAY

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1. Introductions and Review Agenda (10 minutes)



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- Decision: Approve meeting summary and set future meeting dates (10 min)
- Information: MYP & SC meeting summaries (15 min)
- Discussion: EPA Program Office Update (20 min)
- Information: 2024 Workplan (15 min)
- Discussion: S&T Monitoring Update (20 min)
- Information: Event-based Monitoring (20 min)
- Information: Data Services and Informatics Update (30 min)
- Discussion: Communications Update (30 min)
- Information: Status of Deliverables and Action Items (5 min)
- Discussion: Plan Agenda Items for Future Meetings (5 min)



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2. Decision: Approve Meeting Summary
from TRC Meeting on 9/19/23; Confirm
Future Meeting Dates (10 minutes)

Meeting schedule

Scheduled Technical Review Committee meetings (usually 3rd or 4th Wednesday of the month):

- March 26, 2024

Scheduled Steering Committee meetings:

- January 22, 2024
- April 15, 2024

Annual Meeting:

- October 16, 2024



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3. Information: November 1, 2023 MYP and SC Meeting Summaries (15 minutes)

Desired outcome: Informed Committee

MYP Workshop Summary

- Discussion: Setting the Stage - Planning for 2024 and Beyond
- Discussion: Information Priorities for 2024-2026
- Discussion: Status & Trends and Other Items
- Discussion: MYP and Strategy Updates for Workgroups
- Discussion: workgroup Scheduling and Agendas
- Summary and Action Items

SC Meeting Summary

- Decision: Select 2024 Chair and Vice Chair and Review the Charter.
- Information: Remote Sampler Purchase Update
- Information: RMP Financial Update for 2023 Quarter 3
- Decision: Draft Detailed Workplan and Budget for 2024
- Discussion/Decision: Communications
- Discussion: Event-based Monitoring and Funding

Two-Tiered Proposal Process

- Tier 1: the traditional format
- Tier 2: one pagers - proposed format shown at right

Special Study Proposal: PFAS Synthesis and Strategy Revision

Summary: Per- and polyfluoroalkyl substances (PFAS) are a class of fluorine-rich chemicals that are used widely in industrial processes and consumer and industrial products, leading to widespread environmental contamination around the world. Since the previous RMP PFAS synthesis and strategy effort completed in 2018, the RMP has collected, and is in the process of collecting significant additional data and information about PFAS in the Bay and Bay pathways. Additionally, concerns relating to the persistence of PFAS, the high toxicity of well-studied members of this class, and the pattern of regrettable substitution observed in industry, have led scientific and regulatory bodies to recommend broad, class-based monitoring and management approaches. With these recent scientific and management developments, as well as the elevation of PFAS as a broader class in the RMP's tiered risk-based framework, an updated comprehensive synthesis of PFAS Bay monitoring data and a strategy for future monitoring is needed. This proposed synthesis and strategy revision would provide an updated synthesis of PFAS monitoring data in the Bay, identification of priority information gaps needed to inform monitoring and management, development of a conceptual model framework identifying source categories associated with pathways for PFAS to reach the Bay, and an updated strategy for RMP monitoring of PFAS.

Estimated Cost: \$107,000
Oversight Group: ECWG
Proposed by: Diana Lin, Ezra Miller, Kelly Moran, Rebecca Sutton
Time Sensitive: Yes to inform ongoing state-wide PFAS monitoring and management strategies

PROPOSED DELIVERABLES AND TIMELINE

Deliverable	Due Date
Task 1. Presentation and discussion at ECWG to identify management drivers	April 2024
Task 2. Compile datasets, standardize, and conduct data analysis and evaluations	January - June 2024
Task 3. Concise literature review to inform data evaluations and strategy development	June - December 2024
Task 4. Draft Report	March 2025
Task 5. Gather comments on Draft Report strategy during ECWG	April 2025
Task 6. Final Report	July 2025



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4. Discussion: EPA Program Office Update (20 min)

Desired outcome:

- Informed Committee
- Provide input to EPA on the list

SAN FRANCISCO BAY PROGRAM OFFICE

Fiscal Year 2024 Draft Annual Priority List

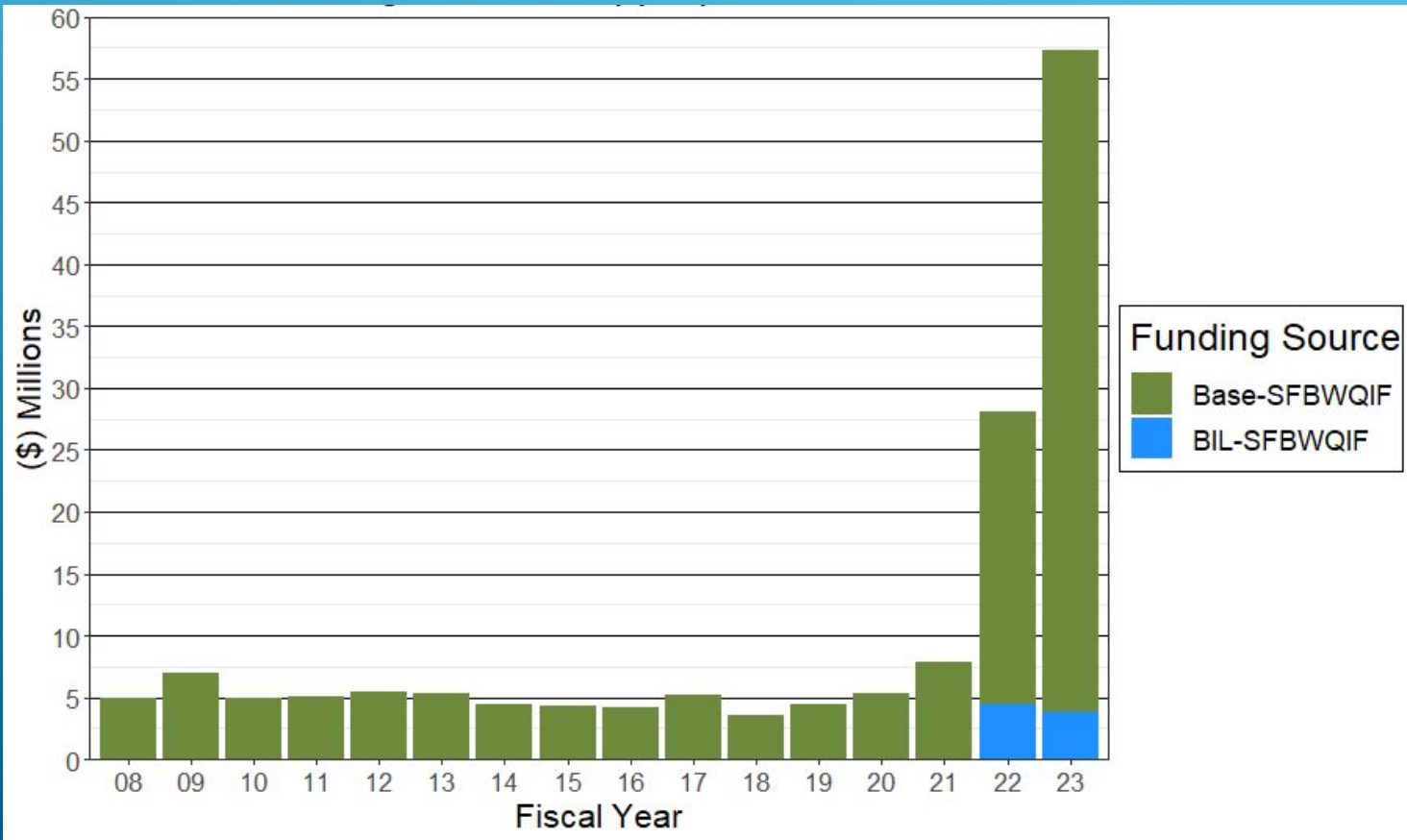
US EPA Region 9

- ▶ TRC Meeting
- ▶ December 7, 2023
- ▶ Luisa Valiela, valiela.luisa@epa.gov

Timeline Leading to Priority List

- ▶ National Defense Authorization Act (NDAA) passed Dec. 2022
- ▶ NDAA is legislation that included authorization for a new San Francisco Bay Program Office at EPA R9
 - ▶ Legislative language also included direction to EPA to create an Annual Priority List which identifies needed projects and studies
 - ▶ In creating the list, EPA should consider recommendations from:
 - ▶ SFEP, SF Water Board, SFBRA, other stakeholders

Congressional Appropriations to Date



**Subtidal eelgrass
and oyster reef
restoration**

**Wetlands Regional
Monitoring Program**

**Beneficial Reuse of
Dredged Material
Support**

**In-Bay Monitoring of
Pollutants, including
trash, and algal species
under the Regional
Monitoring Program**

**Large scale shoreline
resilience, multi-benefit
projects including
horizontal levees and
wastewater
treatment/reuse**

**Nutrient
Management
Strategy**

**EPA Region 9
San Francisco Bay Program Office
FY24 Draft Annual Priority List**

**Special
studies/projects for
addressing PFAS in
SF Bay**

**Large scale tidal
wetlands restoration**

**Special
studies/projects for
addressing PCBs
under TMDL
implementation plan**

**Large scale
implementation of
urban green
stormwater
infrastructure**

**BRRIT
(Bay Restoration
Regulatory
Integration Team)**

What We are Asking of You

- ▶ Feedback on the draft Annual Priority List
- ▶ Any suggestions for other venues/stakeholders to present list to this year or in future years
- ▶ Recommendations for regular updates on funding allocations to priorities

Next Steps

- ▶ Present at other stakeholder meetings
- ▶ Finalize list in Winter/Spring 2024
- ▶ Summer 2024 begin putting in place grants to recipients that address priorities



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5. Information: 2024 Workplan (15 minutes)

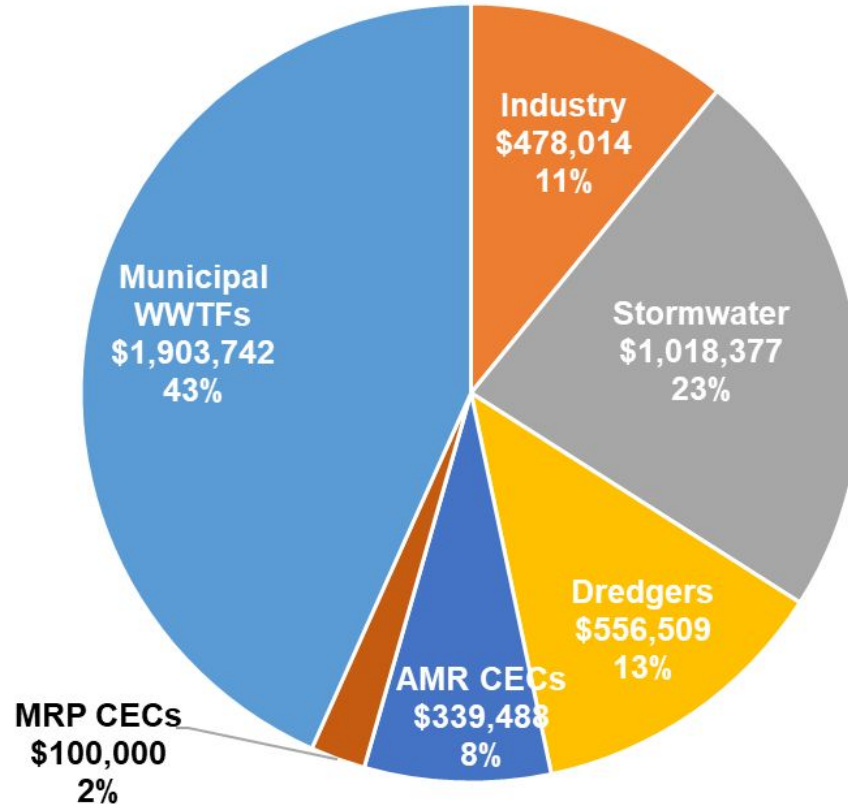
Desired outcome: Informed Committee

Proposed 2024 Budget

- Revenue = **\$5,216,129** (includes assumed dredger shortfall)
 - \$3,956,642 Core fees
 - \$339,488 AMR
 - \$100,000 MRP
 - \$500,000 S&T set aside fund
 - \$320,000 Undesignated reserve
- Expenses = \$5,216,074
- Balance = \$55

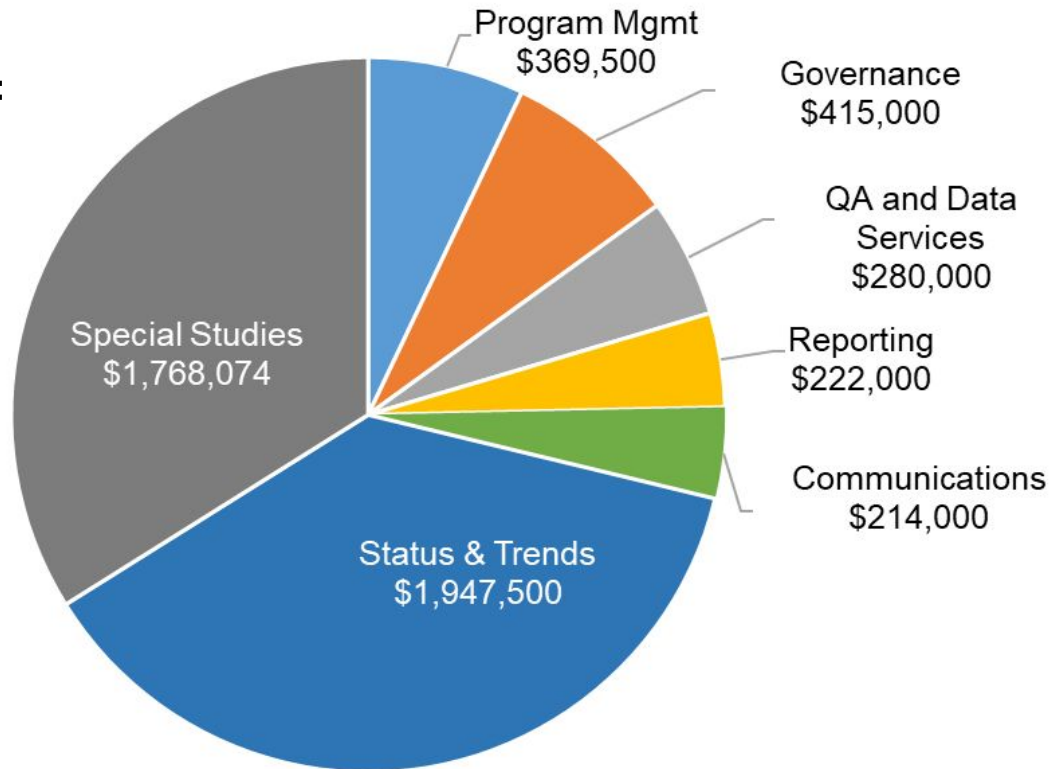
2024 Revenue - Planned

Total =
\$5,216,129

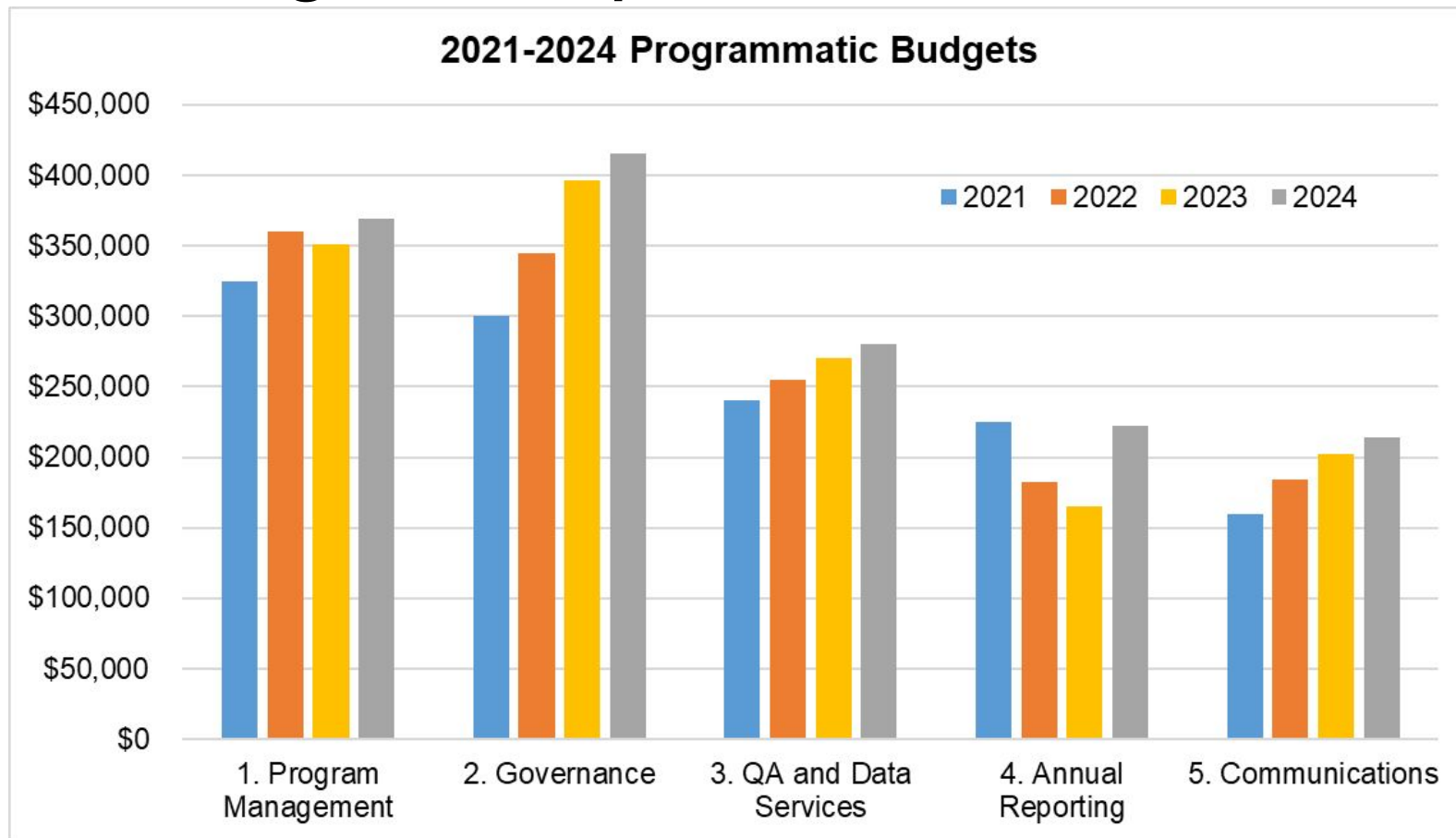


Proposed 2024 Budget

Total Expenses=
\$5,216,074



2024 Program Implementation Costs



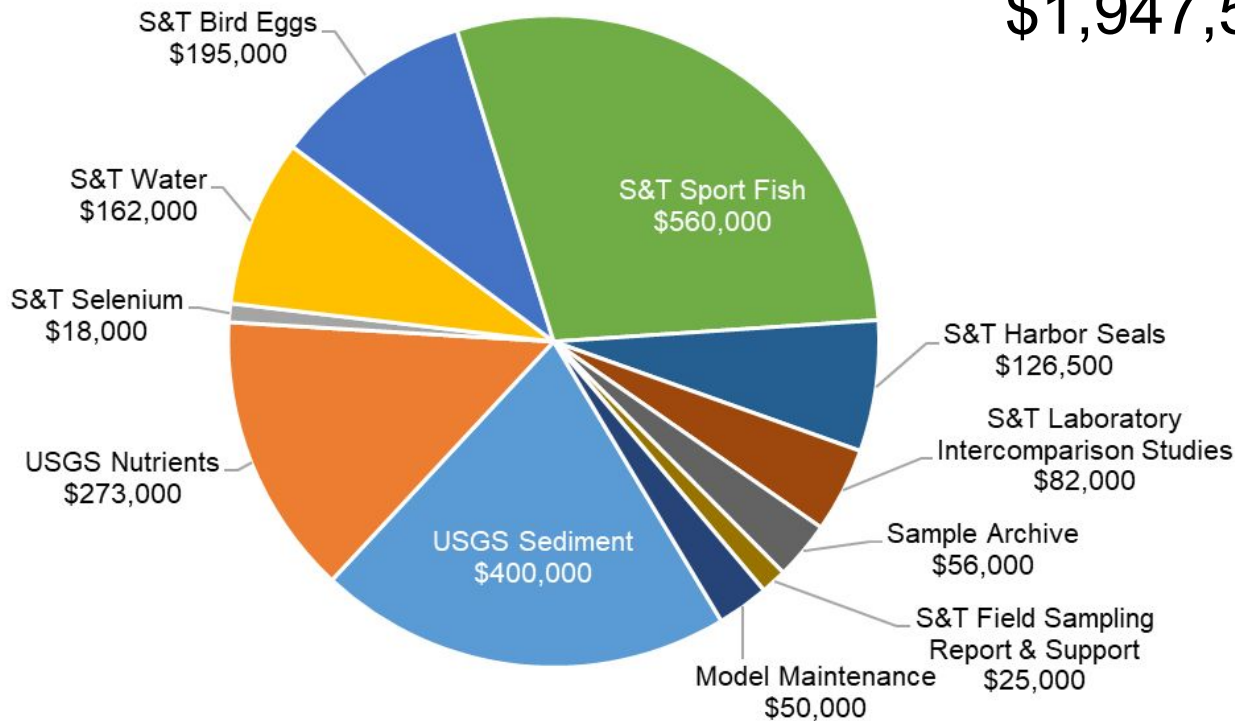
Status & Trends 2024

- USGS Moored Sensor Network for Suspended Sediment
- USGS Monthly Cruises for Nutrients and Phytoplankton
- Toxic Contaminants in Water – Wet Season
- Toxic Contaminants in Cormorant Egg Tissue
- Toxic Contaminants in Sport Fish
- Toxic Contaminants in Harbor Seals
- Model Maintenance

S&T Program Budget

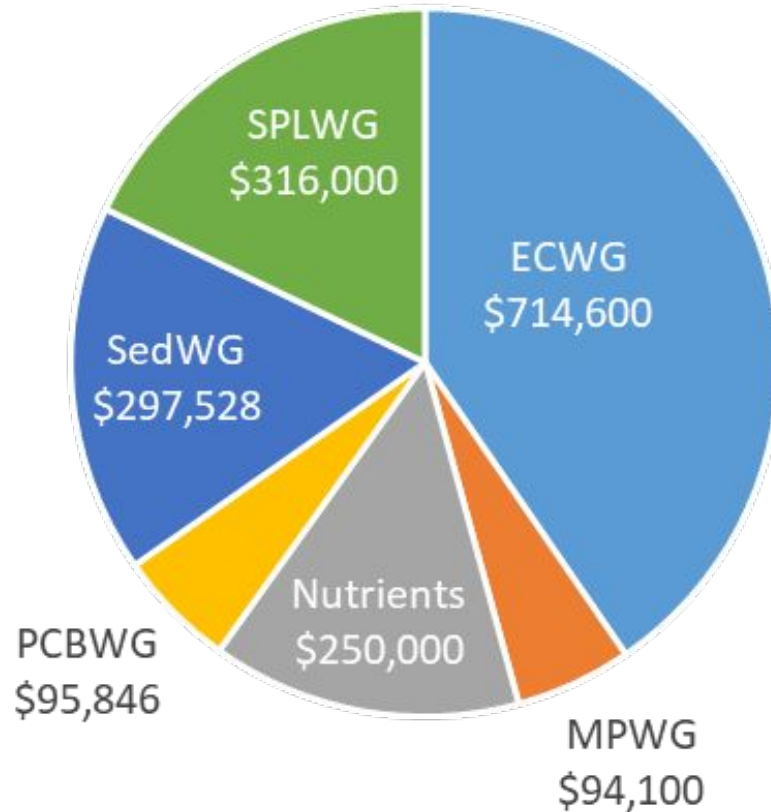
2024 S&T Budget

Total Budget =
\$1,947,500



Special Studies 2024

Total Budget =
\$1,768,074



Discussion

- Questions?



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6. Information: Watershed Modeling Update (15 minutes)

Desired outcome: Informed Committee

Watershed Modeling Update

- Tan's departure was a major wrench in the works
- Pedro is excellent, is getting up to speed, and has made progress on some tasks: CEC data analysis, CEC model exploration report, San Leandro Bay watershed modeling, NextGen Urban Greening
- Multiple RMP projects have been largely on hold
- Nearing the conclusion of a hiring process - help is on the way!
- We have also been exploring getting external consulting help - Jay and Lester discussions with Tom, Richard, and Chris - have been sorting out who and how - next step: sorting out the budgets and revised workplans

WATERSHED MODELING TASK BUDGETS AND DELIVERABLE DUE DATES

575.7

Number	Project				Original	Revised	Comments
		Original budget	budget: Delt	Budget Remaining	deliverable due date	deliverable due date	
3022/29	WDM Phase 3 (Year 1) (2022) - Pilot POC modeling phase 1	90	125.4	13.6	12/31/23		
3023/29	WDM Phase 3 (Year 2) (2023) - Pilot POC modeling phase 2	130	130	44.2	12/31/23		Need to regroup on this and probably ask for more money
	WDM Uncertainty Analysis "Phase 1" 2024	62		62	3/31/26		
	WDM Uncertainty Analysis "Phase 2" 2025	104		104	3/31/26		
	Model maintenance	50		50			
3300/24	RWSM		23.3	21.9			
3300/23	IWBMS	200	200	131			
3300/28	Sediment modeling SEP				10/31/25		\$333 of \$408 remaining for whole
	Destination Clean Bay: In-Bay Modeling ("Tan") (total \$ for p	149		149	6/30/27		
	CEC stormwater load modeling exploration						
	CEC stormwater data analysis						
	CEC stormwater model development (task in Stormwater Modeling/Monitoring 2024 project)						
	Stormwater CEC Approach Project (report)						
	CEC stormwater Groundwork and Stormwater CECs integrated modeling/monitoring 2023/2024 project						



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7. Discussion: S&T Monitoring Update (20 minutes)

Desired outcomes:

- Informed Committee
- Obtain input on S&T implementation

Status & Trends 2023

- Selenium in Sturgeon muscle tissue (delayed from 2022)
- Toxic Contaminants in Water – Wet Season Year 2 (Pilot)
- Toxic Contaminants in Sediment – Sediment Cruise
- Toxic Contaminants in Near-field Bay Sediment
- Toxic Contaminants in Bay Margins Sediment
- Toxic Contaminants in Prey Fish
- Toxic Contaminants in Harbor Seals
- Toxic Contaminants in Water – Dry Season Water Cruise

Status & Trends 2024

- Toxic Contaminants in Water – Wet Season
- Toxic Contaminants in Cormorant Egg Tissue
- Toxic Contaminants in Sport Fish
- Toxic Contaminants in Harbor Seals

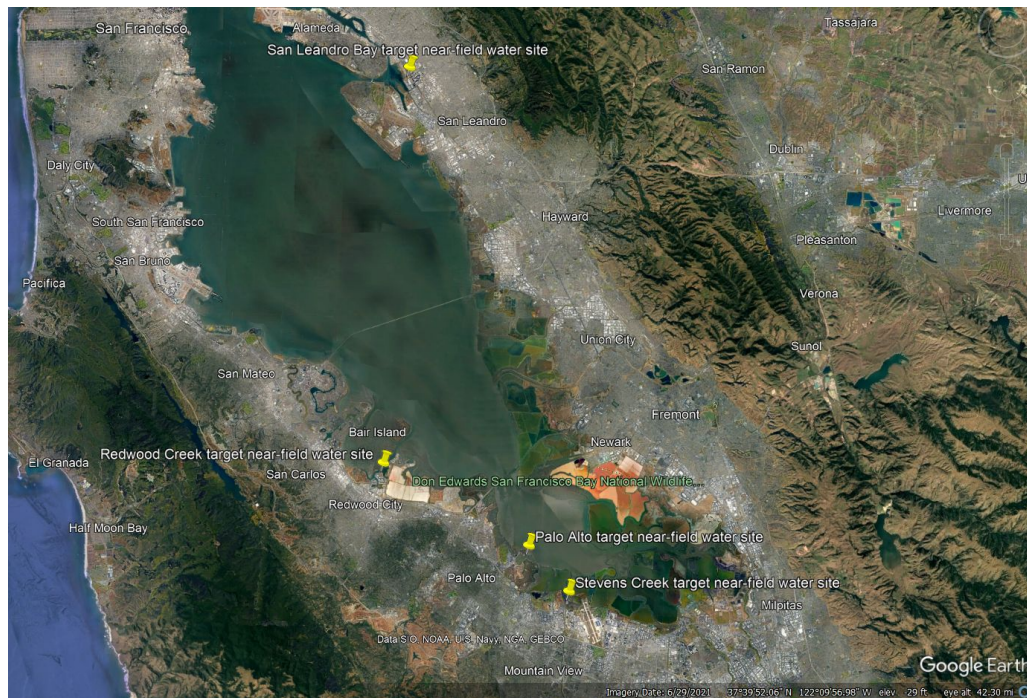
Timing of Activities

[illegible]

Wet Weather Sampling - Near-field and Bay water

★ WY2024 S&T Near-Field Water Sampling and Analysis Plan - SFEI Contribution No. 1154

- ★ Goal is to sample 2 storm events and once in the dry season
- ★ 4 nearfield stations and 4 Bay stations
- ★ PFAS, TOP, bisphenols, OPEs, stormwater CECs
- ★ No storms yet



Toxic Contaminants in Bird Eggs

- Draft contracts by end of 2023
- Double-crested Cormorants
- Samples will be collected by staff at the USGS-WERC
- Hg and Se (MLML)
- PFAS, PCBs, PBDEs and legacy pesticides (SGS-AXYS)

Toxic Contaminants in Sport Fish

- Sport Fish Strategy Team planning meeting scheduled for Dec 18
- Key species: striped bass, shiner surfperch, white sturgeon, white croaker, halibut
- Samples will be collected by ICF
- Hg and Se (MLML)
- PFAS, PCBs, PBDEs and legacy pesticides (SGS-AXYS)
- Expanded PFAS monitoring this round
- Include PCB PMU sampling
- Non-target analysis
- Expanded archiving for CECs

Toxic Contaminants in Marine Mammals



The Marine
Mammal Center®

- 2024 is year two of a two year special study
- Goal: 10 harbor seals and 10 harbor porpoises
- Animals recovered within the Bay are priority
- PFAS analysis of liver and serum - SGS AXYS
- Non target analysis (NTA) of liver and blubber - Crimmins lab (AEACS, Clarkson Univ.)
- NTA of blubber - Hoh lab (SDSU)
- Marine Mammal Center is collecting the samples
- Deliverable: S&T study design recommendation
 - June 2025.



In 2023:

- ★ Liver and Blubber samples from 3 harbor seals
- ★ Serum samples from 6 harbor seals
- ★ Zero harbor porpoises.



Selenium Review

- NB Selenium Data Report 2019-2020 in final review stages
- 2021-2022 data report - draft estimated in March 2024
- Continue discussions with USGS re: lab analysis
- Next steps?

8. Information: Event-Based Monitoring (20 minutes)

Desired outcomes:

- Informed Committee
- Input from the Committee

Recommendations of Steering Committee + Richard

- Develop plans to be ready for HABs, high flows, fires, and spills
- Develop a matrix of event type and monitoring responses
 - Urgency of the response will vary (e.g., HAB - rapid; fire - lag time) - more detail needed for rapid response items
 - Type of response will vary
- Work with Dave Senn
- Identify critical event-based needs (e.g., sediment budget data gap) with input from workgroup leads, WB staff
- Think through logistics, partners, decision-making process
- Small group: Dave, Richard, Amy, Jay - others welcome
- Then bring the plan to the TRC



Break

9. Information: Data Services and Informatics Update (30 minutes)

Desired outcome: Informed Committee

10. Communications (30 minutes)

Desired outcomes:

- Feedback on the 2023 Annual Meeting and RMP Update
- Input on plan for Pulse in 2024

RMP Update 2023

- Any feedback?
- Same number of copies as 2021?



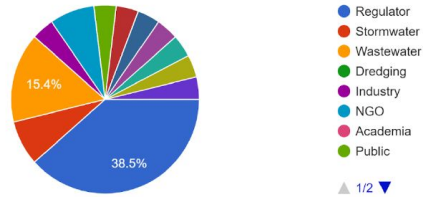
Annual Meeting

- 110 in person
- 168 via Zoom



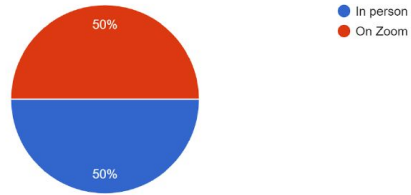
Which of the following categories best describes your affiliation?

26 responses



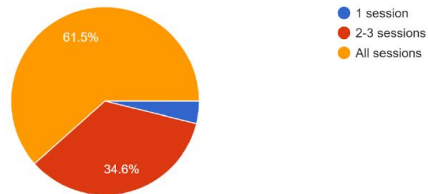
How did you attend the meeting?

26 responses



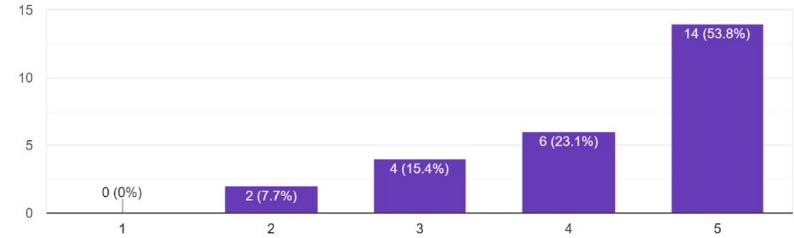
How much of the meeting did you attend? (session = a set of presentations & discussion organized by a theme)

26 responses



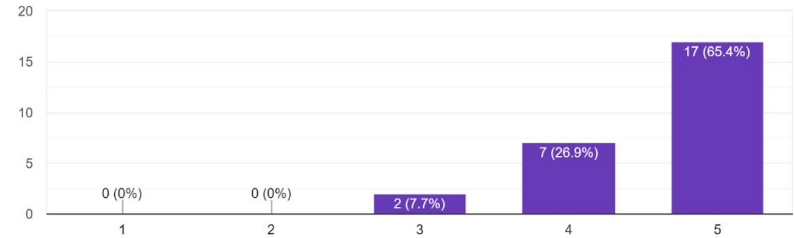
What was your general level of satisfaction with the meeting?

26 responses



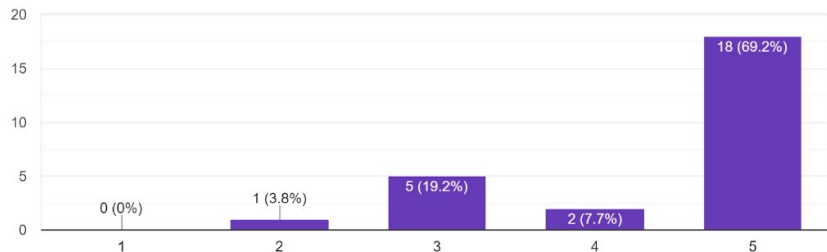
How informative and useful was this meeting's content?

26 responses



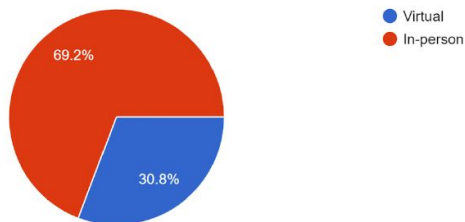
How was the general organization of the meeting?

26 responses



If you've attended Annual Meetings before, do you prefer a virtual or in-person meeting format?

26 responses

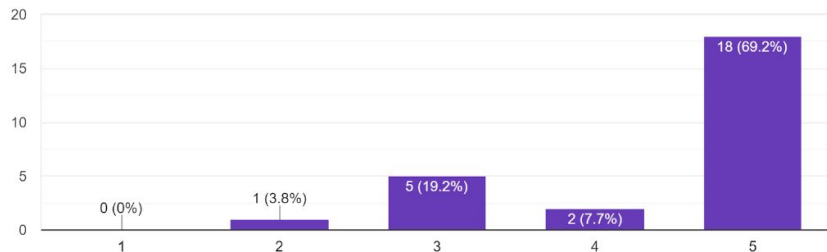


What did you enjoy/appreciate about the meeting? (e.g., speakers, discussion, Q&A)

- The technical presentations were very informative
- The relevancy of the topics and the deep dives
- amazing speakers! great discussion!
- Seeing some of the people doing this important work
- I liked the topic and speakers, the DTSC speaker was especially good.
- Quality and content of presentation, Excellent speakers/moderators, Fantastic staff, crew and delicious food!
- well organized and informative presentations and chatting with others during the breaks
- Enthusiastic and engaging presenters and scientific info and data presented for all knowledge levels; great topics
- It was a great lineup of speakers and topics. I thought the time allotted to the speakers and Q&A was perfect.
- Frankly, all of it. The meeting was interesting and engaging.
- that you recorded and will post all the presentations
- Networking opportunities
- lectures on sedimentation and pollutants in fish tissue samples
- It was nice to hear about all of the study results, typically we are in the lab and deal with the actual samples so this was a great overview.
- great venue and speakers, well organized and timed
- The panel discussions.
- Speakers; seeing the range of investigations from contaminant trends in the Bay all the way upstream to efforts to identify sources
- great range of topics
- The speaker presentations were excellent.
- SPEAKERS
- Speakers - history
- Speakers and topics

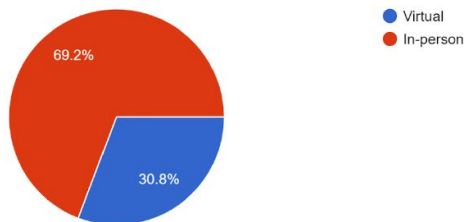
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TRC Feedback?

Pulse 2024

- Theme: CECs
- Similar to the 2013 Pulse
- An updated go-to guide to CECs in the Bay
- Will start early in 2024





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11. Information: Status of Deliverables and Action Items (5 minutes)

Desired outcomes:

- Informed Committee
- Feedback on progress and due dates

Deliverables - completed!

- 😊 Sediment Monitoring and Modeling Workplan - SFEI Contribution No. 1100
- 😊 WY S&T West Season Water SAP - SFEI Contribution No. 1154
- 😊 RMP Update/Meeting with WSPA
- 😊 2024 Annual Workplan and Budget
- 😊 Draft 2024 MYP Update

Deliverables – Overdue...

- MTC Bay Area Land Use Update (SEP)
- STLS Regional Model Development
- Stormwater Monitoring Strategy for CEC's
- Final Margins Report
- 2020 S&T Design Report

Deliverables – delayed

- Selenium in Sturgeon muscle tissue analysis
- Bird eggs
- RWSM updated model
- Nutrients light attenuation and moored sensors
- Ethoxylated Surfactants Final Report
- Sediment Delivery to Marshes - data releases
- 2023 Interlab comparison study results presentation

Deliverables – due before next TRC meeting

- North Bay Selenium Clam and Water Report
- 2023 QAPP Update
- 2021 QA Summary
- Microplastics Strategy Update
- NTA Sediment Data Manuscript and Fact Sheet
- PFAS in Archived Sport Fish Manuscript
- CECs in Urban Stormwater



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

Desired outcome: Identify future agenda items



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13. Discussion: Plus/Delta (5 minutes)



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Thank you!