BACWA
BAY AREA
CLEAN WATER
AGENCIES

Executive Board Meeting
AGENDA
Friday September 17, 2021 9:00 AM - 3:00 PM (PDT)

To attend the meeting via Zoom or submit a comment please request access.

Agenda Item		Time	Pages
ROLL CALL, INTRODUCTIONS, AND TELECONFERENCE ETIQUETTE		**9:00 AM**	
PUBLIC COMMENT	Guidelines		
CONSIDERATION TO TAKE AGENDA ITEMS OUT OF ORDER			
CONSENT CALENDAR			
1 August 20, 2021 BACWA Executive Board meeting minutes		**9:10 AM**	**3-8**
2 August 25, 2021 Nutrient Strategy Team Meeting			**9-10**
3 August 31, 2021 BACWA Joint Meeting with Regional Water Board minutes			**11-13**
4 July 2021 Treasurers Report			**14-22**
APPROVALS AND AUTHORIZATIONS			
5 Approval: BACWA AED contract amendment for BACC support rate increase		**9:15 AM**	**23-31**
6 Approval: SFEI Contract Amendment for Phase 1 PFAS Study			**32-45**
POLICY/STRATEGIC			
7 Discussion: Nutrients		**9:20 AM**	
a. Technical Work			
i. FY21 Science Program Overview and recent work products	FY 21 NMS overview		
ii. FY22 Science Program			
BREAK (15min)			
b. Regulatory		**10:30 AM**	
i. Discussion of R2 science needs for WSP 3.0			**46-48**
ii. August 25 NST meeting debrief and discussion of next steps			**49-51**
iii. Review of draft Key Tenets			
c. Governance Structure			
i. Modeling advisory group planning update			
ii. August 30, 2021 Planning Subcommittee meeting notes			
8 Discussion: AMR Admin Draft Update	Spreadsheet with Cost Information		**52-58**
9 Discussion: Biosolids regulation and collaboration on biosolids white paper			**59-83**
10 Informational: Chlorine Residual Blanket Permit Amendment Adoption Hearing			**84**
11 Discussion: PFAS Special Study Phase 2 update			
Lunch (1hour)		**12:00 PM**	
OPERATIONAL			
12 Discussion: FY23 Nutrient Surcharge Allocation		**1:00 PM**	**85**
13 Discussion: Bruce Wolfe Scholarship fund			**86-88**
14 Discussion: One Water Contribution			**89-92**
15 Informational: BACC Update			
16 Discussion: Annual Meeting Planning - venue and speakers			
17 Discussion: Arleen Navarret Award process kickoff			93-94
18 Discussion: Program for Orinda - October 28/29			**95-96**
PRESENTATION			
19 Discussion: Climate change planning priorities - presentation by Andy Gunther		**2:00 PM**	
REPORTS			
20 Committee Reports			**97-98**
21 Member highlights			
22 Executive Director Report			**99-102**
23 Board Calendar and Action Items			**103-104**
24 Regulatory Program Manager Report			**105**
25 Other BACWA Representative Reports			
a. RMP Technical Committee	Mary Lou Esparza, Yuyun Shang, Samantha Engelage		

b. RMP Steering Committee	Karin North; Amanda Roa; Eric Dunlavey		
c. Summit Partners	Lorien Fono; Lori Schectel		
d. ASC/SFEI	Lorien Fono; Eileen White		
e. Nutrient Governance Steering Committee	Eric Dunlavey; Eileen White; Lori Schectel		
e.i Nutrient Planning Subgroup	Eric Dunlavey		
e.ii NMS Technical Workgroup	Eric Dunlavey		
f. SWRCB Nutrient SAG	Lorien Fono		
g. NACWA Taskforce on Dental Amalgam	Tim Potter		
h. BAIRWMP	Cheryl Munoz; Florence Wedington		
i. NACWA Emerging Contaminants	Karin North; Melody LaBella		
j. CASA State Legislative Committee	Lori Schectel		
k. CASA Regulatory Workgroup	Lorien Fono; Mary Cousins		
l. ReNUWIt	Jackie Zipkin; Karin North		
m. ReNUWIt One Water	Jackie Zipkin, Eric Hansen		
n. RMP Microplastics Liaison	Artem Dyachenko		
o. Bay Area Regional Reliability Project	Eileen White		
p. WateReuse Working Group	Cheryl Munoz		
q. San Francisco Estuary Partnership	Eileen White; Lorien Fono		
r. CPSC Policy Education Advisory Committee	Colleen Henry		
s. California Ocean Protection Council	Lorien Fono		
t. Countywide Water Reuse Master Plan	Karin North, Pedro Hernandez		
u. CHARG - Coastal Hazards Adaptation Resiliency Group	Jackie Zipkin		

26 **SUGGESTIONS FOR FUTURE AGENDA ITEMS**		

NEXT MEETING		
The next meeting of the Board is scheduled for November 19, 2021		

ADJOURNMENT	**3:00 PM**	

Executive Board Meeting Minutes

August 20, 2021

ROLL CALL AND INTRODUCTIONS

Executive Board Representatives: Amy Chastain (San Francisco Public Utilities Commission); Eileen White (East Bay Municipal Utility District); Jackie Zipkin (East Bay Dischargers Authority); Lori Schectel (Central Contra Costa Sanitary District) Amit Mutsuddy (City of San Jose).

Other Attendees and Guests:

Name	Agency/Company
Aaron Winer	West County Wastewater District
Amanda Roa	Delta Diablo
Diana Lin	SFEI
Don Gray	EBMUD
Dave Richardson	Woodard & Curran
Jason Warner	Oro Loma Sanitary District
Jared Voskuhl	CASA
Jennifer Acton	SFO
Jennifer Dyment	BACWA
Jenny Reina	Jacobs Engineering Group
Lorien Fono	BACWA
Mary Cousins	BACWA
Mary Lou Esparza	Central Contra Costa Sanitary District
Martin Trinh	SFEI
Melody LaBella	Central Contra Costa Sanitary District
Melody Tovar	Sunnyvale
Melissa Foley	SFEI
Miguel Mendez	SFEI
Mike Connor	Consultant
Rion Merlo	Hazen & Sawyer
Ryujiro Tsuchihashi	Jacobs Engineering Group
Sarah Deslauriers	Carollo Engineers
Sergio Ramirez	West Bay Sanitary District
Talyon Sortor	Fairfield-Suisun Sewer District
Tom Hall	EOA

Amit Mutsuddy started meeting at 9:03

ROLL CALL, INTRODUCTIONS, AND TELECONFERENCE ETIQUETTE

PUBLIC COMMENT -none

CONSIDERATION TO TAKE AGENDA ITEMS OUT OF ORDER - Move item 10 after item 7

CONSENT CALENDAR

1 July 16, 2021 BACWA Executive Board meeting minutes

2 June 2021 Treasurers Report

Consent Calendar Items 1 and 2*: A motion to approve was made by Eileen White (East Bay Municipal Utility District) and seconded by Jackie (East Bay Dischargers Authority). The motion was approved unanimously. Lori Schectel, Central San, abstained from voting on Item 1 as she was not present at the July 16 Board meeting.*

APPROVALS AND AUTHORIZATIONS

3 Approval: Transfer of funds from BACWA to CBC and $1M NMS payment - 1st installment

Approval Item 3*: A motion to approve was made by Amy Chastain (San Francisco Public Utilities commission) and seconded by Eileen White (East Bay Municipal Utility District). The motion was approved unanimously.*

4 Roundtable: Agency staff vaccination and testing requirements

Agencies discussed their policies on staff COVID testing and vaccination. Agencies shared their future plans for work from home schedules. General discussion followed.

POLICY/STRATEGIC

5 Discussion: Nutrients

a. Regulatory

i. Trading legal review Trading legal references – BACWA Executive Director shared information from a literature review to support a legal analysis of trading. Board members suggested additional resources on legal review of trading. EPA is favorable to trading and provides guidance on compliance with CWA and supports market-based approaches. There are no point-to-point trading programs in California. Next steps are to evaluate feasibility of point-to-point trading per prop 218 and consistency with Porter Cologne, leveraging existing efforts.

ii. August 25 NST meeting agenda - BACWA Executive Director summarized preliminary meeting agenda focusing on HDR's analysis of historic TIN loading data.

b. Governance Structure

i. July 18, 2021 Planning Subcommittee Meeting Notes

6 Discussion: PFAS Study Phase I data discussion, scope for Phase 2, and Fact Sheet - BACWA Executive Director shared that BACWA has prepared a fact sheet (also included with packet) to explain the status of the project. The SFEI contract for Phase 2 will be on the agenda for the September board meeting.

Diana Lin from SFEI presented findings from Phase 1 of the PFAS Study. The study design included a representative set of facilities for participation, and participants sampled influent, effluent and biosolids at 15 facilities. SFEI summarized PFAS analytical methods and summarized the result of target and Total Oxidizable Precursors (TOP) PFAS concentrations in influent, effluent and biosolids. SFEI also shared proposed priorities for Phase 2 study objectives. SEFI shared project timeline for PFAS 2 study – August through October 2021 – with sampling to begin in October. Discussion followed about items to add to PFAS 2 study. Link to slides: https://bacwa.org/wp-content/uploads/2021/08/August-20-BACWA-Board-Meeting-1.pdf

Action item – ***BACWA staff to make SFEI's slides available to BACWA website.***

BREAK 10:32 – 10:42

7 Discussion: Regional Monitoring Program (RMP) Update Presentation - Melissa Foley from SFEI presented an annual update on the RMP and its activities of the last year, as well as what is coming up in 2022. Multiyear planning workshop is on October 20th. The RMP is focused on science and management needs in SF Bay. SFEI shared slide with specific regulations that are informed by the RMP and future drivers that need to be monitored. Their process is to work with their stakeholders on what the management needs are in the data they are collecting in their status & trends review. SFEI summarized some of the changes that are being proposed for the Status & Trends workgroup, and also shared planned special studies in 2021 which include: monitoring stormwater Constituents of Emerging Concern (CECs), monitoring PFAS in Bay water, updating the toxicology strategy, monitoring quaternary ammonium compounds in wastewater and sediment, and monitoring sunscreens in wastewater. The 2022 special studies will be: CEC Strategy revision, monitoring tire-related contaminants in Bay water, and monitoring ethoxylated surfactants in wastewater, bay water and sediment. SFEI summarized microplastics studies and nutrient monitoring projects in 2021 and 2022. SFEI shared fee structure and budget, including resuming their annual 3% increase in fees. Virtual annual meeting will be in October 14 and invitations will be coming out soon. General discussion followed.

8 Discussion: Climate change mitigation and adaptation planning - BACWA RPM shared that the RWB climate change questionnaire is finishing up. The response rate was 40 of 46 of the agencies invited and the RPM summarized general observations from survey results. RPM also shared excerpts from July 27th Workshop & CEQA scoping meeting for the Water Board's shoreline resiliency Basin Plan Amendment.

Action item – BACWA RPM to pull together the sources of sea level rise estimates cited in the survey.

9 Discussion: Biosolids regulation and collaboration on biosolids white paper - Sarah Deslauriers, Carollo Engineers, shared that the white paper examines the issues where we see a potential intersection of agricultural land which have received biosolids land application, and wetlands

to mitigate sea level rise. The white paper provides background and criteria for each use, and there is a workshop September 13, 2021 to bring stakeholders together to determine if these uses are compatible. BACWA staff to receive draft 1 week before workshop. RWB is very interested in outcome of this paper and the discussions at the workshop.

10 Discussion: AMR Admin Draft Schedule Update - BACWA RPM shared that the comments on the administrative draft are due on September 1, and a public comment period will follow in September through mid-October 2021. RPM summarized alternate monitoring, CEC funding issues, as well as the schedule of fall meetings and permit adoption. This issue will be added to the Pardee Technical meeting. Item 10 was discussed after item 7. General discussion followed and group was appreciative of RPM's work.

11 Informational: Chlorine Residual Blanket Permit Amendment Tentative Order – BACWA RPM shared that the comment letter is due today and it will be submitted after meeting.

12 Discussion: Draft agenda for 8/31 meeting with R2 staff - BACWA RPM shared draft agenda with RWB including agency updates, nutrients, PFAS Regional Study phase 2, biosolids, CECs and alternate monitoring requirements, chlorine residual blanket, climate change and retreat planning. RPM asked for feedback on agenda. Agenda will also be shared with RWB.

Action item – BACWA ED to add selenium to agenda and share with RWB, and then board.

13 Informational: CCCSD's Microplastic pilot work update - CCCSD staff shared update on microplastics OPC project with CASA. There are two parts to the pilot: 1) SFEI is identifying potential sources and pathways of microplastics in stormwater and 2) SCCWRP to determine the efficacy of removing microplastics in wastewater treatment plants. CCCSD staff created video of sampling equipment and procedure. The video is for use by study participants that need to collect and analyze samples. CCCSD explained to the group the equipment set up and issues collecting the samples.

OPERATIONAL

14 Informational: BACC Update and chemical shortages - BACWA AED shared agenda for year-end meeting and a couple agencies shared that they are still having issues with chemical shortages (such as ferric chloride).

15 Discussion: Pardee/Orinda planning - agreement on venue and timing - BACWA ED shared COVID restrictions at Pardee facility. Group agreed to cancel Pardee facility reservation. Group felt a meeting outside at Orinda was a good option, with Zoom as a backup.

Action item – BACWA ED and AED to cancel Pardee and determine deadlines and outdoor options at Orinda

16 Discussion: Draft agendas Pre-pardee meeting and Pardee program - BACWA ED shared that September meeting is from 9-3pm. It will be a very nutrient heavy meeting with a presentation

from SFEI and Andy Gunther is also going to speak about climate change. BACWA ED referred to draft agendas in the packet.

17 Discussion: Potential contribution to the Bruce Wolfe scholarship fund - BACWA ED and EBDA discussed a scholarship to support women in STEM that would be administered by CASA Education Foundation. CASA Education Foundation asked for the financial commitment is $5000 a year for 5 years. Discussed how to divide the $5000 between BACWA and EBDS. Discussed criteria of scholarship.

18 Discussion: One Water request for workshop contribution - BACWA ED to discuss this at next meeting.

REPORTS

19 Committee Reports - In packet

20 Member highlights - CCCSD gave a presentation to the Philadelphia DO partnership. SFPUC and City have been holding periodic townhall meetings that have been very positive and valuable.

21 Executive Director Report - In packet

22 Board Calendar and Action Items - In packet

23 Regulatory Program Manager Report - In packet

24 Other BACWA Representative Reports

a. RMP Technical Committee Mary Lou Esparza, Yuyun Shang, Samantha Engelage

b. RMP Steering Committee Karin North; Amanda Roa; Eric Dunlavey

c. Summit Partners Lorien Fono; Lori Schectel

d. ASC/SFEI Lorien Fono; Eileen White

e. Nutrient Governance Steering Committee Eric Dunlavey; Eileen White; Lori Schectel

e.i Nutrient Planning Subgroup Eric Dunlavey

e.ii NMS Technical Workgroup Eric Dunlavey

f. SWRCB Nutrient SAG Lorien Fono

g. NACWA Taskforce on Dental Amalgam Tim Potter

h. BAIRWMP Cheryl Munoz; Florence Wedington

i. NACWA Emerging Contaminants Karin North; Melody LaBella

j. CASA State Legislative Committee Lori Schectel

k. CASA Regulatory Workgroup Lorien Fono; Mary Cousins

l. ReNUWIt Jackie Zipkin; Karin North

m. ReNUWIt One Water Jackie Zipkin

n. RMP Microplastics Liaison Artem Dyachenko

o. Bay Area Regional Reliability Project Eileen White

p. WateReuse Working Group Cheryl Munoz

q. San Francisco Estuary Partnership Eileen White; Lorien Fono

r. CPSC Policy Education Advisory Committee Colleen Henry

s. California Ocean Protection Council Lorien Fono

t. Countywide Water Reuse Master Plan Karin North, Pedro Hernandez

u. CHARG - Coastal Hazards Adaptation Resiliency Group Jackie Zipkin

25 SUGGESTIONS FOR FUTURE AGENDA ITEMS

NEXT MEETING

The next meeting of the Board is scheduled for September 17, 2021

ADJOURNMENT 1:16

Nutrient Strategy Team
August 25, 2021 Meeting Summary

ATTENDEES:

Executive Board Representatives: Lori Schectel (Central Contra Costa Sanitary District); Amit Mutsuddy (San Jose); Eileen White (East Bay Municipal Utility District); Jacqueline Zipkin (East Bay Dischargers Authority).

Other Attendees:

Name	**Agency/Company**
Lorien Fono, Mary Cousins	BACWA
Roger Bailey, Dan Frost, Blake Brown, Mary Lou Esparza, Melody LaBella	CCCSD
Amanda Roa	Delta Diablo
Don Gray	EBMUD
Tom Hall	EOA
Jordan Damerel, Meg Herston	FSSD
Mike Falk, Samuel Bruce, JB Neethling, Dave Clark, Holly Kennedy	HDR
Karin North, Sam Engelage	Palo Alto
Azalea Mitch	San Mateo
Nohemy Revilla	SFPUC
Cameron Kostigen Mumper, Melody Tovar, Emma Hinojosa	Sunnyvale
Tim Grillo, Armando Lopez	USD
Jennifer Harrington	Vallejo F&WD

The primary purpose of the meeting was to discuss the results of nutrient loading data analysis recently completed by HDR. The presentation was led by Mike Falk of HDR. The group also discussed how this work may inform key tenets for the 3rd watershed permit, which are currently in draft and will be discussed further in September 2021.

The following key points were discussed as part of the presentation:

- As background, the presentation covered the basis of the planning level targets in the 2nd watershed permit, which may become load caps in the 3rd watershed permit. The baseline used the maximum dry season loading observed from 2014-2017, plus a 15% growth buffer.

- Compliance with antidegradation-based load caps may require a combination of three approaches:
  (a) an appropriately high baseline that captures expected operational variability, possibly beyond what was captured in the 2014-2017 baseline of the 2nd watershed permit;

(b) averaging over time using a dry season or multi-year average; and/or
(c) spatial averaging using subembayment-based limits or trading.

- HDR's analysis investigated how potential exceedances of the planning level targets are a function of loading variability, growth projections, grouping by subembayment, and averaging over time. Due to the pandemic, recent growth (2020) was actually negative.

- HDR's analysis looked at several subembayment options (1, 2, or 4 subembayments) to demonstrate the benefits of spatial grouping on compliance. The actual subembayments used in the 3rd watershed permit (if any) may vary. Grouping dischargers into subembayments provides a greater probability of compliance.

Discussion followed about how these finding impact BACWA's negotiated positions.

NEXT STEPS

The Executive Director will incorporate some of the findings from the data analysis into the key tenets document currently in draft. At the September 17th Executive Board meeting, the group will identify which aspects of the key tenets have consensus and can be discussed with Regional Water Board staff.

Special Executive Board Meeting Minutes
Joint Meeting with Regional Water Board Staff

August 31, 2021

ROLL CALL AND INTRODUCTIONS

Executive Board Representatives: Lori Schectel (Central Contra Costa Sanitary District); Amit Mutsuddy (San Jose); Eileen White (East Bay Municipal Utility District); Jacqueline Zipkin (East Bay Dischargers Authority); Amy Chastain (SFPUC).

Other Attendees:

Name	**Agency/Company**
Lorien Fono	BACWA
Mary Cousins	BACWA
Michael Montgomery	Regional Water Board
Tom Mumley	Regional Water Board
Bill Johnson	Regional Water Board
Maggie Monahan	Regional Water Board
Robert Schlipf	Regional Water Board
Jean-Marc Petit	Central Contra Costa Sanitary District
Don Gray	East Bay Municipal Utility District
Eric Dunlavey	City of San Jose
Mike Falk	HDR
Tom Hall	EOA

PUBLIC COMMENT – None.

AGENDA ITEMS

Agenda **Item 1 –** Agency Updates

Representatives from the Regional Water Board (RB2) and BACWA agencies briefly shared how their agencies are handling the rollout of vaccination and testing requirements over the next few months. The Regional Water Board does not expect to hold an in-person Board meeting until November, and plans to integrate online participation in future Board meetings. A statewide General Order on restoration projects is out for public comment, as is a statewide construction stormwater permit.

The group is no longer planning to meet in-person at Pardee on October 28-29, but will plan to convene virtually or in-person at EBMUD's Orinda Watershed headquarters. RB2 shared that Maggie Monahan is the main point of contact for emerging contaminants, industrial and construction stormwater permits, waste discharges to land, and recycled water. Board members Jackie Zipkin shared that EBDA is planning to honor the memory of Bruce Wolfe with a

scholarship. BACWA will follow up with more details, as this may be an item for a future E/O report.

Agenda **Item 2 – Nutrients**
HDR's Mike Falk shared the 10-minute presentation on the San Francisco Bay Nutrient Management Strategy (NMS) that he plans to give at WEFTEC in October. The group shared their appreciation and did not recommend any changes to the main slides. RB2 staff recommended having a backup slide showing nutrient loading trends to demonstrate that the management approach is defensible. Mike Falk also noted that WRF plans to release a draft report on nutrient management that will reference the NMS (See WRF project #4974). The group discussed that at the October meeting, we will discuss the findings of HDR's loading data analysis and discuss how to approach loading variability in the 3rd watershed permit.

Tom Mumley shared the following nutrient regulatory update from RB2:

- RB2's determination at this time is that (a) the open Bay is not impaired for nutrients; (b) For South SF Bay margins, more data are needed to make impairment decisions; (c) South Bay sloughs such as Guadalupe Slough and possible others are probably impaired for low DO. Any official finding of impairment will take time, as RB2 understands that there are regulatory consequences.
- Possible regulatory actions to control algae production include modifying South Bay Salt Pond restoration project WDRs; modifying WDRs for San Jose; tracking 401 certification for USACE projects in the South Bay; considering DO when setting climate change and dredged sediment policies. Stormwater is not a significant source.
- RB2 has determined that they do not need a Basin Plan Amendment at this time to support the 3rd watershed permit or other regulatory actions. Other documentation in lieu of a Basin Plan Amendment is sufficient. This approach has been vetted with EPA.

Based on this update, resources and scientific effort will be focused on the South Bay. However, potential impacts to coastal ocean waters have not yet been considered, and could become a focus in the future. RB2 staff plan to prepare a written document summarizing this update soon.

Agenda **Item 3 – PFAS Regional Study, Phase 2**
The group briefly discussed the strategy for formulating the Phase 2 Sampling and Analysis plan. RB2 staff endorsed engaging with State Water Board staff as soon as feasible.

Agenda **Item 4 – Biosolids**
RB2 is re-assessing the permitting approach for biosolids disposal and land application in the Baylands. This is a narrow focus; RB2 is not assessing biosolids permitting *outside* of the Baylands at this time. RB2 staff are engaged in the preparation of the "White Paper" regarding Biosolids in the Baylands and have not yet decided how to proceed with permitting. The current plan is to (a) Gather additional information and hold off on making final determinations until after the White Paper is completed; and (b) Talk individually with agencies to gather water quality, biosolids

quality, and soil sample results, then assess whether additional sampling is needed to fill data gaps. So far, RB2 staff have visited Novato and are visiting 3 other agencies in September. They do not plan to issue permits for new sites until the overall strategy has been set. The primary concerns are (a) threats to groundwater, especially if groundwater is shallow and connected to adjacent surface waters; (b) flooding and surface water runoff; (c) cumulative loading; and (d) sea level rise and future land uses. The State Water Board may also update the statewide General Order at some point, but this is not expected for several years. BABC is a potential source of funding to fill data gaps. "Blue carbon" grant programs are another potential source of funding.

Agenda **Item 5 – CECs and Alternate Monitoring Requirements Overhaul**
The group briefly discussed RB2's administrative draft blanket permit amendment revising Monitoring and Reporting Programs to raise funds for the RMP's Emerging Contaminants Program. RB2 staff explained that they believe it is in BACWA's interest to maintain PCB monitoring via EPA Method 1668C, and noted that PCB waste load allocations may be adjusted in the future, driven by stormwater concerns. Cost allocations amongst the BACWA community must be determined soon, approximately by late October, so that this information can be included in RMP invoices. The BACWA Board will discuss on September 17th and provide a recommendation to RB2 on the total cost to be included in RMP invoices as a supplemental line item.

Agenda **Item 6 – Chlorine Residual Blanket Permit Amendment**
The Board adoption hearing for the Blanket Permit Amendment has been moved from October 13th to October 12th. The group discussed that a minor revision may be needed to allow sufficient time between EPA's expected approval date and the effective date of the Tentative Order. BACWA will follow up with the RB2 on proposed edits.

Agenda **Item 7 – Climate Change**
RB2 staff plan to issue a draft Basin Plan Amendment related to climate change in the near future. There will be a "testimony" hearing at the November RB2 Board meeting, and then it will go back to the Board for adoption in February 2022 (at the earliest). Separately, James Parrish at RB2 is compiling the results of the climate change questionnaire and will include an informational item in a future Executive Officer's report. So far, the questionnaire responses indicate that sea level rise is the top issue of concern, and improving levees is one of the proposed solutions. In the future, this information may be collected in a database that is updated over time. RB2 staff is interested in promoting greater regional collaboration on levee projects. The State Water Board also still plans to issue a separate questionnaire related to climate change.

Agenda **Item 8 – Selenium**
RB2 stated that they have no issues with removing selenium from the 2021 RMP Status & Trends monitoring. The Status & Trends program is being overhauled and selenium could be included in the revised program plan.

The next meeting will be at the "Pardee" retreat, which will occur virtually or in Orinda.

Bay Area Clean Water Agencies
A Joint Powers Public Agency
Leading the Way to Protect our Bay

August 31, 2021

MEMO TO: Bay Area Clean Water Agencies Executive Board

MEMO FROM: Damien Charléty, Treasurer, East Bay Municipal Utility District

SUBJECT: First Month FY 2022 Treasurer's Report

As required by section eight of the Joint Powers Agreement establishing the Bay Area Clean Water Agencies (BACWA) and California Government Code Sections 6500 et seq., attached is the BACWA Treasurer's Report for the period covering **July 1, 2021 through July 31, 2021** (One month of Fiscal Year 2022). This report covers expenditures, cash receipts, and cash transfers for the following BACWA funds:

- Bay Area Clean Water Agencies (BACWA),
- BACWA Legal Reserve Fund (Legal Rsrv),
- Water Quality Attainment Strategy (WQA CBC),
- Bay Area Biosolids Coalition (BABC),
- Bay Area Chemical Consortium (BACC),
- Water/Wastewater Operator Training (WOT),

Houck, Matt

From: Charléty, Damien
Sent: Wednesday, September 1, 2021 1:06 PM
To: Houck, Matt
Cc: Feldman-Crough, Samuel
Subject: RE: BACWA - July 2021 Treasurer's Report

Approved.

(I and J are invested in the backup versus on the sheet. Also, the investment reconciliation looks different. Will this be the same going forward or because month-end is not yet done for July?)

From: Houck, Matt <matt.houck@ebmud.com>
Sent: Wednesday, September 1, 2021 8:24 AM
To: Charléty, Damien <damien.charlety@ebmud.com>
Cc: Feldman-Crough, Samuel <samuel.feldman@ebmud.com>
Subject: BACWA - July 2021 Treasurer's Report

Hi Damien,

Please approve BACWA - July 2021 Treasurer's Report for distribution.

Thanks,

Matt Houck
Accountant II
East Bay Municipal Utility District
375 11TH St, MS 402, Oakland, CA 94607
P 510-287-0238

Fund Balances

In FY22 BACWA has three operating funds (BACWA, Legal, and CBC) and three pass-through funds for which BACWA provides only contract administration services (WOT, BABC & BACC).

BACWA Fund: This fund provides the resources for BACWA staff, its committees, and other administrative needs. The ending fund balance on July 31, 2021, was $1,311,220 which is significantly higher than the target reserve of $201,612 which is intended to cover 3 months of normal operating expenses based on the BACWA FY22 budget. $45,5811 of the ending fund balance is shown on the BACWA Fund & Investments Balance Report July 31, 2021, as encumbered to meet ongoing operating line-item expenses for BAPPG Committee Support, Legal services, IT services, Board meeting expenses, accounting services and BACWA staff support. This leaves actual unencumbered excess funds of $655,027 (i.e., actual fund balance of $856,639 less target reserves) as July 31, 2021.

CBC Fund: This fund provides the resources for completing special investigations as well as meeting regulatory requirements. The ending fund balance on July 31, 2021, was $1,164,182 which is higher than the target reserve of $1,000,000. $577,403 of the ending fund balance is encumbered to meet line-item expenses for completion of the Group Annual Report contract, completion of the NBS Study, Recycled Water Evaluation, and the PFAS Regional Study. This leaves an actual unencumbered fund balance of negative $413,221 (i.e., actual fund balance of $586,779 less $1,000,000 target reserves) as of July 31, 2021. As directed by the BACWA Executive Board, the CBC fund has diminished over time due to BACWA's ongoing funding of the NMS program to comply with the Nutrient Watershed Permit.

Legal Fund: This fund provides for needed legal services. The ending balance was $300,000 which is at the target reserve of $300,000.

Budget to Actual

The BACWA Annual Budget includes all expected revenues as well as budgeted expenses. Transfers are made from the BACWA Fund and/or the CBC Fund to balance the Annual Budget if expenses exceed revenues and vice versa. It is therefore important to achieve the anticipated revenues and not exceed the budgeted expenses on an annual basis to maintain the BACWA and CBC Fund balances at the levels projected in the 5 Year Plan.

Revenues as of July 31, 2021 (8% of the FY) are at 0.06%.

Expenses as of July 31, 2021 (8% of the FY) are at 1.03%.

FY 2022
BACWA BUDGET to ACTUAL

BACWA BAY AREA CLEAN WATER AGENCIES

BACWA FY22 BUDGET	***Line Item Description***	**FY 2022 Budget**	**Actual July 2021**	**Actual % of Budget July 2021**	**Variance**	**NOTES**
REVENUES & FUNDING						
Dues	Principals' Contributions	$516,909	$0	0%	-$516,909	FY22: no increase. 5 @ $103,382
	Associate & Affiliate Contributions	$187,793	$0	0%	-$187,793	FY22: no increase. 13 Assoc: $8,364; 45 Affiliate: $1,675.
Fees	Clean Bay Collaborative	$675,000	$0	0%	-$675,000	Prin: $450,000; Assoc/Affil: $225,000
	Nutrient Surcharge	$1,700,000	$0	0%	-$1,700,000	See Nutrient Surcharge Spreadsheet
	Voluntary Nutrient Contributions	$0	$0	0%	$0	
Other Receipts	AIR Non-Member	$7,075	$0	0%	-$7,075	no increase (Santa Rosa)
	BAPPG Non-Members	$3,954	$0	0%	-$3,954	no increase (Sta Rosa, Sac Reg'l, Vacaville) $1,292/each
	Other	$0	$0		$0	
Fund Transfer	Special Program Admin Fees (WOT)	$5,202	$0	0%	-$5,202	FY22: no increase
	Special Program Admin Fees (BACC)	$27,200	$0	0%	-$27,200	400 hours of AED support $68 / hr
	Special Program Admin Fees (BABC)	$6,000	$0	0%	-$6,000	ED, AED and RPM support
Interest Income	LAIF	$20,000	$1,848	9%	-$18,152	BACWA, Legal, & CBC Funds invested in LAIF
	Higher Yield Investments					
	Total Revenue	**$3,149,133**	**$1,848**	**0.06%**	**-$3,147,285**	

BACWA FY22 BUDGET	***Line Item Description***	**FY 2022 Budget**	**Actual July 2021**	**Actual % of Budget July 2021**	**Variance**	**NOTES**
EXPENSES						
Labor						
	Executive Director	$190,000	$0	0%	-$190,000	No change from FY20/FY21 budget
	Assistant Executive Director	$108,800	$7,684	7%	-$101,116	2.0% CPI (SF Bay Metro Area Dec 2020); $68/hour; Reflects 1600 hours (incl. 400 hours for BACC)
	Regulatory Program Manager	$127,400	$12,537	10%	-$114,863	$98/hour, Reflects 1300 hours
	Total	**$426,200**	**$20,221**	**5%**	**-$405,979**	
Administration						
	EBMUD Financial Services	$42,448	$0	0%	-$42,448	No change from FY20/21 budget
	Auditing Services	$5,345	$0	0%	-$5,345	Finanical Auditors through EBMUD; per auditor rate schedule
	Administrative Expenses	$7,959	$0	0%	-$7,959	No change from FY20/21 budget
	Insurance	$5,071	$0	0%	-$5,071	2% increase over FY21 actual
	Total	**$60,823**	**$0**	**0%**	**-$60,823**	
Meetings						
	EB Meetings	$2,653	$0	0%	-$2,653	No change from FY20/21 budget
	Annual Meeting	$14,369	$0	0%	-$14,369	No change from FY20/21 budget
	Pardee	$6,537	$0	0%	-$6,537	No change from FY20/21 budget
	Misc. Meetings	$5,306	$0	0%	-$5,306	No change from FY20/21 budget
	Total	**$28,865**	**$0**	**0%**	**-$28,865**	
Communication						
	Website Hosting	$700	$0	0%	-$700	Website hosting $600, Go Daddy domain registration $100
	File Storage	$765	$0	0%	-$765	No change from FY20/21 budget, box.net
	Website Development/Maintenance	$1,530	$770	50%	-$760	No change from FY20/21 budget
	IT Support	$2,652	$0	0%	-$2,652	No change from FY20/21 budget
	Other Commun	$1,785	$0	0%	-$1,785	No change from FY20/21 budget; MS Exchange, Survey Monkey, PollEv, Zoom, Netfile
	Total	**$7,432**	**$770**	**10%**	**-$6,662**	

FY 2022
BACWA BUDGET to ACTUAL

EXPENSES						
Legal						
	Regulatory Support	$2,815	$0	0%	-$2,815	2% increase, Downey Brand LLP
	Executive Board Support	$2,264	$1,166	52%	-$1,098	2% increase, Day Carter & Murphy LLP
	Total	**$5,079**	**$1,166**	**23%**	**-$3,913**	
Committees						
	AIR	$76,000	$5,962	8%	-$70,038	$75k consulting support, $1k misc expenses. Carollo Engineers
	BAPPG	$130,000	$4,777	4%	-$125,223	Includes CPSC @ $10,000, OWOW @ $10,000, and Pest. Reg Spt. @ $60,000
	Biosolids Committee	$0	$0		$0	
	Collections System	$1,000	$0	0%	-$1,000	
	InfoShare Groups	$1,750	$0	0%	-$1,750	Funds for 2 workgroups ($750 for Asset Mgmt - new in FY21; $1,000 for O&M)
	Laboratory Committee	$1,000	$439	44%	-$561	
	Permits Committee	$1,300	$0	0%	-$1,300	All meetings moved to include lunch hour for commuting purposes
	Pretreatment	$1,000	$0	0%	-$1,000	
	Recycled Water Committee	$1,000	$0	0%	-$1,000	
	Misc Committee Support	$45,000	$0	0%	-$45,000	
	Manager's Roundtable	$1,000	$0	0%	-$1,000	
	Total	**$259,050**	**$11,178**	**4%**	**-$247,872**	
Collaboratives						
	Collaboratives					
	State of the Estuary (SFEP-biennial)	$0	$0	0%	$0	Biennial in Odd Fiscal Years. (Paid bienniely in odd years for even year conference)
	Arleen Navarret Award	$2,500	$0	0%	-$2,500	Biennial in Even Fiscal Years. Award amount increased in FY20
	BayCAN	$5,000	$0	0%	-$5,000	New in FY22
	Stanford ERC (ReNUWIt)	$10,000	$0	0%	-$10,000	
	Misc	$1,500	$0	0%	-$1,500	NBWA
	Total	**$19,000**	**$0**	**0%**	**-$19,000**	
Other						
	Unbudgeted Items					
	Other	$0	$0	0%	$0	
		$0	**$0**	**0%**	**$0**	
Tech Support						
	Technical Support					
	Nutrients					
	Watershed	$2,600,000	$0	0%	-$2,600,000	Advance funding for 2nd Watershed Permit Science Studies. SFEI
	NMS Voluntary Contributions	$0	$0	0%	$0	
	Additional work under permit	$100,000	$0	0%	-$100,000	Includes HDR PO for $225k spread out over FY20-24.
	Regional Study on Nature based systems	$248,811	$0	0%	-$248,811	SFEI PO for $500K, expires 6/30/2022
	Regional Recycling Evaluation	$63,525	$0	0%	-$63,525	HDR PO for $154K FY20-24
	Nutrient Workshop(s)	$0	$0	0%	$0	Pilot Studies/Plant Review/Innovative Technologies
	NMS Reviewer	$50,000	$0	0%	-$50,000	
	General Tech Support	$100,000	$0	0%	-$100,000	AB617 emission factors, nutrient technical review, other nutrient support
	CEC Investigations	$140,000	$8,971	6%	-$131,029	PFAS Study Phase II
	Risk Reduction	$7,500	$0	0%	-$7,500	APA FSS completed $12,500 contract in FY20, CIEA will complete $12,500 contract in FY22
	Total	**$3,309,836**	**$8,971**	**0%**	**-$3,300,865**	
	TOTAL EXPENSES	**$4,116,285**	**$42,306**	**1.03%**	**-$4,073,979**	
	NET INCOME BEFORE TRANSFERS	**-$967,152**				
	TRANSFERS FROM RESERVES	**$967,152**				aligns with strategy of drawing down reserves to lessen impact of Nutrient Surcharge
	NET INCOME AFTER TRANSFERS	**$0**				
	TOTAL OPERATING BUDGET	**$806,449**				

FY 2022
BACWA BUDGET to ACTUAL

EXPENSES						
	OPERATING RESERVE	**$201,612**				

BACWA Fund Report as of July 31, 2021

BACWA FUND BALANCES - DATA PROVIDED BY ACCOUNTING DEPT.

DEPTID	DESCRIPTION	FISCAL YEAR BEGINNING FUND BALANCE	TOTAL RECEIPTS TO-DATE	TOTAL DISBURSEMENTS TO-DATE	MONTH-ENDING FUND BALANCE	OUTSTANDING ENCUMBRANCES	MONTH-END UNOBLIGATED FUND BALANCE
800	BACWA	1,320,328	832	9,940	1,311,220	454,581	856,639
804	LEGAL RSRV	300,000	-	-	300,000	-	300,000
805	CBC	1,172,137	1,016	8,971	1,164,182	577,403	586,779
	SUBTOTAL 1	*2,792,465*	*1,848*	*18,911*	*2,775,402*	*1,031,984*	*1,743,418*
802	BABC	*112,737*	-	-	112,737	*120,000*	(7,263)
806	BACC	*22,146*	*6,559*	-	28,705	-	28,705
810	WOT	275,143	-	-	275,143	-	275,143
	SUBTOTAL 2	*410,026*	*6,559*	-	*416,585*	*120,000*	*296,585*
	GRAND TOTAL	**3,202,491**	**8,407**	**18,911**	**3,191,987**	**1,151,984**	**2,040,003**

Top Chart: Reflects CASH on the Books — Includes Encumbrances
Bottom Chart: Reflects CASH in the Bank — Includes Payables (bills received but not paid)
Allocations: Priority for non-liquid investments

BACWA INVESTMENTS BALANCES - DATA PROVIDED BY TREASURY DEPT.

DEPTID	DESCRIPTION	FISCAL YEAR BEGINNING FUND BALANCE	TOTAL RECEIPTS TO-DATE	TOTAL DISBURSEMENTS TO-DATE	MONTH-ENDING FUND BALANCE	RECONCILIATION TO FINANCIAL STATEMENTS	MONTH-END RECONCILED FUND BALANCE	UNINVESTED CASH BALANCES	LAIF INVESTMENTS AMOUNTS	LAIF INVESTMENTS PERCENTAGE	ALTERNATIVE INVESTMENTS AMOUNTS	ALTERNATIVE INVESTMENTS IDENTIFIERS	ALTERNATIVE INVESTMENT INSTRUCTIONS AND NOTES
800	BACWA	1,320,328	832	9,940	1,311,220	36,249	1,347,469	549,051	798,418	35%	-		priority # 3 for allocation
804	LEGAL RSRV	300,000	-	-	300,000	-	300,000	-	300,000	13%	-		priority # 1 for allocation
805	CBC	1,172,137	1,016	8,971	1,164,182	-	1,164,182	-	1,164,182	51%	-		priority # 2 for allocation
	SUBTOTAL 1	2,792,465	1,848	18,911	2,775,402	36,249	2,811,651	549,051	2,262,600	100%	-		
802	BABC	112,737	-	-	112,737	-	112,737	112,737	-	0%	-		pass-through funds, no allocation
806	BACC	22,146	6,559	-	28,705	-	28,705	28,705	-	0%	-		
810	WOT	275,143	-	-	275,143	-	275,143	275,143	-	0%	-		pass-through funds, no allocation
	SUBTOTAL 2	410,026	6,559	-	416,585	-	416,585	416,585	-	0%	-		
	GRAND TOTAL	**3,202,491**	**8,407**	**18,911**	**3,191,987**	**36,249**	**3,228,236**	**965,636**	**2,262,600**	**-**			
						-	-	-	-				

To be used to cover Reconciliation to Financial Statements ($0)

Reconciliation to Trial Balance - accrual basis

Per Report above:					
General	1,848	STB	1493	2,262,600	
WOT, BABC, & BACC	6,559	STB	1505	965,636	
PROP	-			**3,228,236**	-
subtotal	**8,407**	STB	2135	(36,249)	
				3,191,987	-

Billings-Pending Receipts

4686	Mem Contrib	(6,559)
4687	Transfer	-
4690	Assoc Contrib	-
4696	Other	-
4731	State Grant	-
4732	Grant Retention	-
subtotal		**(6,559)**

Trial Balance Revenue Accounts

4411	Interest	(1,848)
4686	Mem Contrib	-
4687	Transfer	-
4690	Assoc Contrib	-
4696	Other	-
4731	State Grant	-
4732	Grant Retention	-
subtotal		**(1,848)**
Difference		**0**

BACWA Revenue Report as of July 31, 2021

FUND #	DEPARTMENT	JOB	REVENUE TYPE	AMENDED BUDGET	CURRENT PERIOD			YEAR TO DATE				UNOBLIGATED
					Admin & General	Contributons	Interest, Transfers,Others	Admin & General	Contributons	Interest, Transfers,Others	ACTUAL	
800	Bay Area Clean Water Agencies	0408511	Administrative & General	-	-	-	-	-	-	-	-	-
800	Bay Area Clean Water Agencies	1011099	BDO Member Contributions	516,909	-	-	-	-	-	-	-	516,909
800	Bay Area Clean Water Agencies	1011108	BDO Other Receipts	-	-	-	-	-	-	-	-	-
800	Bay Area Clean Water Agencies	1011109	BDO Fund Transfers	5,202	-	-	-	-	-	-	-	5,202
800	Bay Area Clean Water Agencies	1011117	BDO- Interest Income from LAIF	20,000	-	-	832	-	-	832	832	19,168
800	Bay Area Clean Water Agencies	1011133	BDO Assoc.&Affiliate Contr	187,793	-	-	-	-	-	-	-	187,793
800	Bay Area Clean Water Agencies	1014251	BDO Non-Member Contr BAPPG	3,954	-	-	-	-	-	-	-	3,954
800	Bay Area Clean Water Agencies	1014252	BDO Non-Member Contr AIR	7,075	-	-	-	-	-	-	-	7,075
800	Bay Area Clean Water Agencies	1014511	BDO-Alternative Investment Inc	-	-	-	-	-	-	-	-	-
800	Bay Area Clean Water Agencies	1015567	BACC - AED Support	27,200	-	-	-	-	-	-	-	27,200
800	Bay Area Clean Water Agencies	1015568	BABC - AED and RPM Support	6,000	-	-	-	-	-	-	-	6,000
800	Bay Area Clean Water Agencies	1015265	BDO Other Receipts (Misc)	-	-	-	-	-	-	-	-	-
800	Bay Area Clean Water Agencies	1015266	BDO Affiliate/Associate Dues	-	-	-	-	-	-	-	-	-
800	Bay Area Clean Water Agencies	1015267	BDO Affil/CS/Assoc Dues	-	-	-	-	-	-	-	-	-
	BACWA TOTAL			**774,133**	**-**	**-**	**832**	**-**	**-**	**832**	**832**	**773,301**
805	WQA-CBC	1011099	BDO Member Contributions	675,000	-	-	-	-	-	-	-	675,000
805	WQA-CBC	1011108	BDO Other Receipts	1,700,000	-	-	-	-	-	-	-	1,700,000
805	WQA-CBC	1011117	BDO- Interest Income from LAIF	-	-	-	1,016	-	-	1,016	1,016	(1,016)
805	WQA-CBC	1014528	BDO-Voluntary Nutrient Contrib	-	-	-	-	-	-	-	-	-
	WQA CBC TOTAL			**2,375,000**	**-**	**-**	**1,016**	**-**	**-**	**1,016**	**1,016**	**2,373,984**
	TOTAL			**3,149,133**	**-**	**-**	**1,848**	**-**	**-**	**1,848**	**1,848**	**3,147,285**

	DEPARTMENT	JOB	REVENUE TYPE	AMENDED BUDGET	CURRENT PERIOD			YEAR TO DATE				UNOBLIGATED
					Admin & General	Contributons	Interest, Transfers, Others	Admin & General	Contributons	Interest, Transfers, Others	ACTUAL	
802	BABC	1011099	BDO Member Contributions	-	-	-	-	-	-	-	-	-
802	BABC	1011109	BDO Fund Transfers	-	-	-	-	-	-	-	-	-
	BABC TOTAL			**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
806	BACC	1011099	BDO Member Contributions	-	-	6,559	-	-	6,559	-	6,559	(6,559)
	WOT TOTAL			**-**	**-**	**6,559**	**-**	**-**	**6,559**	**-**	**6,559**	**(6,559)**
810	WOT	1011117	BDO- Interest Income from LAIF	-	-	-	-	-	-	-	-	-
	WOT TOTAL			**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Grand Total			**3,149,133**	**-**	**6,559**	**1,848**	**-**	**6,559**	**1,848**	**8,407**	**3,140,726**

BACWA Expense Detail Report for July 31, 2021

EXPENSE TYPE	JOB	AMENDED BUDGET	CURRENT PERIOD ENC	CURRENT PERIOD PV	CURRENT PERIOD DA	CURRENT PERIOD JV	YEAR TO DATE ENC	YEAR TO DATE PV	YEAR TO DATE DA	YEAR TO DATE JV	OBLIGATED	UNOBLIGATED
LABOR												
AS-Executive Director	1011123	190,000	100,000	15,833	-	(15,833)	100,000	15,833	-	(15,833)	100,000	90,000
AS-Assistant Executive Directo	1011124	108,800	-	7,684	-	-	-	7,684	-	-	7,684	101,116
AS-Regulatory Program Manager	1011149	127,400	119,315	(4,452)	-	-	119,315	(4,452)	-	-	114,863	12,537
ADMINISTRATION												
AS-EBMUD Financial Services	1011125	42,448	42,448	-	-	-	42,448	-	-	-	42,448	-
AS-Audit Services	1014512	5,345	10,585	-	-	(5,240)	10,585	-	-	(5,240)	5,345	-
BDO Other Receipts	1011108	-	-	-	-	-	-	-	-	-	-	-
AS-BACWA Admin Expense	1011118	7,959	-	-	-	-	-	-	-	-	-	7,959
AS-Insurance	1011126	5,071	-	-	-	-	-	-	-	-	-	5,071
MEETINGS												
GBS-Meeting Support-Annual	1014514	14,369	-	-	-	-	-	-	-	-	-	14,369
GBS-Meeting Support-Exec Bd	1014513	2,653	-	-	-	-	-	-	-	-	-	2,653
GBS-Meeting Support-Misc	1014516	5,306	-	-	-	-	-	-	-	-	-	5,306
GBS-Meeting Support-Pardee	1014515	6,367	-	-	-	-	-	-	-	-	-	6,367
COMMUNICATION												
CAR-BACWA File Storage	1014518	765	-	-	-	-	-	-	-	-	-	765
CAR-BACWA IT Software	1014520	1,785	-	-	-	-	-	-	-	-	-	1,785
CAR-BACWA IT Support	1014519	2,652	2,652	-	-	-	2,652	-	-	-	2,652	-
CAR-BACWA Website Dev/Maint	1011116	1,530	-	-	770	-	-	-	770	-	770	760
CAR-BACWA Website Hosting	1014517	700	-	-	-	-	-	-	-	-	-	700
LEGAL												
LS-Executive Board Support	1011110	2,264	2,264	-	-	-	2,264	-	-	-	2,264	-
LS-Regulatory Support	1011107	2,815	2,815	-	-	-	2,815	-	-	-	2,815	-
COMMITTEES												
AIR-Air Issues&Regulation Grp	1014253	76,000	69,038	5,962	-	-	69,038	5,962	-	-	75,000	1,000
BC-BAPPG	1011147	130,000	101,223	4,777	-	-	101,223	4,777	-	-	106,000	24,000
BC-Biosolids Committee	1011101	-	-	-	-	-	-	-	-	-	-	-
BC-Collections System	1011097	1,000	-	-	-	-	-	-	-	-	-	1,000
BC-InfoShare Groups	1011102	1,750	-	-	-	-	-	-	-	-	-	1,750
BC-Laboratory Committee	1011103	1,000	561	439	-	-	561	439	-	-	1,000	-
BC-Permit Committee	1011098	1,300	-	-	-	-	-	-	-	-	-	1,300
BC-Pretreatment Committee	1011146	1,000	-	-	-	-	-	-	-	-	-	1,000
BC-Water Recycling Committee	1011100	1,000	-	-	-	-	-	-	-	-	-	1,000
BC-Manager's Roundtable	1014777	1,000	-	-	-	-	-	-	-	-	-	1,000
BC-Miscellaneous Committee Sup	1011104	45,000	3,680	-	-	-	3,680	-	-	-	3,680	41,320
COLLABORATIVES												
CAS-Arleen Navaret Award	1012201	2,500	-	-	-	-	-	-	-	-	-	2,500
CAS-FWQC	1012202	-	-	-	-	-	-	-	-	-	-	-
CAS-Misc Collaborative Sup	1014521	1,500	-	-	-	-	-	-	-	-	-	1,500
CAS-PSSEP	1011112	-	-	-	-	-	-	-	-	-	-	-
CAS-Stanford ERC	1011969	10,000	-	-	-	-	-	-	-	-	-	10,000
CAS-BayCAN	1015718	5,000	-	-	-	-	-	-	-	-	-	5,000
BACWA TOTAL		**806,279**	**454,581**	**30,243**	**770**	**(21,073)**	**454,581**	**30,243**	**770**	**(21,073)**	**464,521**	**341,758**
TECH SUPPORT												
WQA-CE-Technical Support	1011127	100,000	-	-	-	-	-	-	-	-	-	100,000
WQA-CE-Nutrient WS Permit Comm	1014021	2,600,000	-	-	-	-	-	-	-	-	-	2,600,000
WQA-CE Risk Reduction	1014023	7,500	-	-	-	-	-	-	-	-	-	7,500
WQA-CE Addl Work Under Permit	1014254	100,000	118,040	-	-	-	118,040	-	-	-	118,040	(18,040)
WQA-CE Voluntary Nutr Contrib	1014529	-	-	-	-	-	-	-	-	-	-	-
Nutrient Workshops	1015015	-	-	-	-	-	-	-	-	-	-	-
WQA-CE-Nature Based Solutions	1015367	248,811	299,225	-	-	-	299,225	-	-	-	299,225	(50,414)
Recycled Water Evaluation	1015566	63,525	67,190	-	-	-	67,190	-	-	-	67,190	(3,665)
WQA - CEC Investigations	1015569	140,000	42,948	13,020	-	(4,049)	42,948	13,020	-	(4,049)	51,919	88,081
WQA-NMSReviewer	1015719	50,000	50,000	-	-	-	50,000	-	-	-	50,000	-
TECH SUPPORT (CBC) TOTAL		**3,309,836**	**577,403**	**13,020**	**-**	**(4,049)**	**577,403**	**13,020**	**-**	**(4,049)**	**536,374**	**2,723,462**
GRAND TOTAL		**4,116,115**	**1,031,984**	**43,263**	**770**	**(25,122)**	**1,031,984**	**43,263**	**770**	**(25,122)**	**1,000,895**	**3,065,220**
BABC												
AS-Assistant Executive Directo	1011124	-	-	-	-	-	-	-	-	-	-	-
Administrative Support	1011142	-	-	-	-	-	-	-	-	-	-	-
BDO Contract Expenses	1011143	-	-	-	-	-	-	-	-	-	-	-
AS-Regulatory Program Manager	1011149	-	-	-	-	-	-	-	-	-	-	-
Technology Research & Developm	1015372	-	-	-	-	-	-	-	-	-	-	-
Academia Research & Developmen	1015373	-	-	-	-	-	-	-	-	-	-	-
Collateral Development	1015374	-	-	-	-	-	-	-	-	-	-	-
Program Manager Expense	1015376	-	120,000	-	-	-	120,000	-	-	-	120,000	(120,000)
BABC TOTAL		**-**	**120,000**	**-**	**-**	**-**	**120,000**	**-**	**-**	**-**	**120,000**	**(120,000)**
BACC												
Administrative Support	1011142	-	-	-	-	-	-	-	-	-	-	-
BACC TOTAL		**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
WOT												
Administrative Support	1011142	-	-	-	-	-	-	-	-	-	-	-
BDO Contract Expenses	1011143	-	-	-	-	-	-	-	-	-	-	-
		-	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
					22							
GRAND TOTAL (BDO, CBC, BABC, BACC, WOT)		**4,116,115**	**1,151,984**	**43,263**	**770**	**(25,122)**	**1,151,984**	**43,263**	**770**	**(25,122)**	**1,120,895**	**2,945,220**

BACWA EXECUTIVE BOARD ACTION REQUEST

AGENDA NO.: 5

MEETING DATE: September 17, 2021

TITLE: Amendment for FY22 BACWA Assistant Executive Director support with new rate for BACC support, not to exceed $115,600

☐RECEIPT ☐DISCUSSION ☐RESOLUTION ☒APPROVAL

RECOMMENDED ACTION

Approve the amended agreement for AED support and increasing the rate for BACC support the fiscal year covering July 1, 2021, through June 30, 2022.

SUMMARY

BACWA assumed the Bay Area Chemical Consortium bid procurement administration and the Assistant Executive Director performs these duties. In FY22 the BACWA AED will be the lead administrator of BACC process. The BACC Administrator coordinates a multi-bid procurement process for more than 60 public agencies. The BACC project tasks are a different capacity and increased responsibility to the AED duties. These duties are a significant financial and personnel savings to the member agencies. The AED has a contract with BACWA for 1600 hours at $68 per hr. With this amendment, the AED will be paid $85 per hour for 400 of these hours, which will be dedicated to BACC coordination. The total contract will not exceed $115,600.

FISCAL IMPACT

There will be no fiscal impact to BACWA, as BACC is a Project of Special Benefit of BACWA, and support services are funded by BACC participants. Support will be provided by Assistant Executive Director on an hourly basis and invoiced to the Bay Area Chemical Consortium member agencies.

ALTERNATIVES

Do not approve the amendment. This is not recommended as the amended rate structure is appropriate for the level of support associated with BACC administration.

***Attachments*:**

FY22 Amendment #3
FY22 BACC scope of work
FY21 Amendment #2
AED's Original Contract

Approved: _____ **Date:** September 17, 2020

Amit Mutsuddy,
Chair BACWA

Amend 3 JDyment

AMENDMENT NO. 3
TO AGREEMENT BETWEEN
BAY AREA CLEAN WATER AGENCIES and
Jennifer Dyment
FOR
Assistant Executive Director Support

This Amendment No. 3 is made this 17th day of September 2021, in the City of Oakland and County of Alameda, State of California, to that certain agreement of February 21, 2020 (original agreement), and amended May 21, 2021 (Amendment No. 2), by and between Jennifer Dyment and Bay Area Clean Water Agencies, (BACWA) (the "Agreement") in consideration of the covenants hereinafter set forth.

1. BACWA and Jennifer Dyment agree to a new contract amount of $115,600 for Bay Area Chemical Consortium (BACC) Coordination for Fiscal Year 2021.

2. Hourly rate for FY22 is $85.00 per hour for maximum 400 hours total of BACC work, as described by the attached BACC Scope of Work. Hourly rate for BACWA AED support is unchanged at $68.

3. The cumulative total hours in this amended contract does not exceed 1,600 hours total.

4. Except as herein expressly modified, the Agreement will remain in full force and effect.

BAY AREA CLEAN WATER AGENCIES

September 17, 2021

By _____ Date _____

Amit Mutsuddy, Chair
BACWA Executive Board

By _____ Date _____

Jennifer Dyment

Scope of Work for Bay Area Chemical Consortium Administration (400 hours)

BACC Administrator coordinates a multi-bid procurement process for more than 60 public agencies, including the following tasks:

- Maintains BACC Access database and performs data entry, runs reports.
- Prepares & maintains BACC bid calendar
- Prepares public notice ads
- Works with agencies to review, submit and update the chemical bid quantities, delivery details and contact information.
- Updates and maintains bid documents throughout the bid cycle.
- Enters bid details and amendments into Planetbids.com
- Responds to questions from vendors
- Reviews bid submittal documents
- Recommends bidder to agencies
- Prepares cost summary and works with accountant to prepare invoices
- Follows up on invoice payments
- Prepares and leads annual BACC meeting
- Maintains BACC google group

AMENDMENT NO. 2
TO AGREEMENT BETWEEN
BAY AREA CLEAN WATER AGENCIES and
Jennifer Dyment
FOR
Assistant Executive Director Support

This Amendment No. 2 is made this 21st day of May 2021, in the City of Oakland and County of Alameda, State of California, to that certain agreement of February 21, 2020 (original agreement), by and between Jennifer Dyment and Bay Area Clean Water Agencies, (BACWA) (the "Agreement") in consideration of the covenants hereinafter set forth.

1. BACWA and Jennifer Dyment agree to a new contract amount of $108,800 for Assistant Executive Director Support for Fiscal Year 2021.

2. Hourly rate for FY22 is $68.00 per hour.

3. The new contract termination date will be June 30, 2022.

4. The Scope of Work has been updated for Fiscal Year 2022.

5. Except as herein expressly modified, the Agreement will remain in full force and effect.

BAY AREA CLEAN WATER AGENCIES

May 21, 2021

By _____ Date _____

Amit Mutsuddy, Chair
BACWA Executive Board

By _____ Date _____

Jennifer Dyment

BAY AREA CLEAN WATER AGENCIES
PROFESSIONAL SERVICES CONTRACT
Assistant Executive Director

This PROFESSIONAL SERVICES CONTRACT, effective February 21, 2020, is between Bay Area Clean Water Agencies ("BACWA"), a joint powers agency which exists as a public entity separate and apart from its Member Agencies, created January 4, 1984 by a Joint Powers Agreement between Central Contra Costa Sanitary District, East Bay Dischargers Association, East Bay Municipal Utility District, the City and County of San Francisco and the City of San Jose, with a mailing address of P.O. Box 24055, MS 59, Oakland, CA 94623, and Jennifer Dyment ("Consultant"), an individual doing business at 829 Pomona Ave, Albany, CA, for professional services as described in any Exhibit A attached hereto.

The primary purpose of BACWA is to advocate for regulations that are based on sound science. BACWA often supports scientific investigations such as funding the collection of data on aquatic life and quality of waters in the San Francisco Bay system, interpretation of the data to assess the effects of pollution and other factors on the Bay, developing and disseminating information about the Bay, and carrying out other programs of interest to its members.

In consideration of the mutual covenants, stipulations and agreements, the parties agree as follows:

1. Consultant will perform the Services as described by and in accordance with Exhibit A in a manner acceptable to BACWA. Contractor retains the sole right to control and direct the manner in which it provides the services. Notwithstanding the foregoing, BACWA shall, have a right to inspect the work, which shall include the right to stop the work if necessary to ensure that it conforms to BACWA's standards and expected results.

2. Consultant shall not contract with or otherwise use any subconsultants, subcontractors or other non-employee persons or entities ("Subconsultants") to perform the Services without the prior written approval of BACWA. If Consultant and BACWA agree that Subconsultants shall be used, Consultant shall ensure Subsconsultants' compliance with all the terms and conditions of this agreement.

3. BACWA will pay Consultant for services at an hourly rate of $65.00, up to a maximum annual amount of $32,500 for the 2020 fiscal year. Consultant will not exceed the maximum amount payable without obtaining prior written approval from BACWA. Any future increases shall be implemented via an amendment to this contract.

4. BACWA agrees to reimburse Consultant for actual and reasonable expenses necessary to carry out the work described in Exhibit A. This includes, but is not limited to, travel expenses for BACWA-related meetings and events, and the cost of attending trainings necessary for the Consultant to act as the Assistant Executive Director. Travel to meetings, events and trainings outside of the San Francisco Bay and Sacramento Area must be approved by the Executive Director in advance.

5. Consultant shall submit invoices on a monthly basis. Payments under this Contract will be due thirty (30) days after BACWA's receipt of invoices. BACWA may withhold from any progress or final payment any damages, back charges or claims incurred or anticipated by BACWA to the extent caused by Consultant.

6. Consultant will maintain all records relating to this Contract in accordance with generally accepted accounting principles and for at least three years following termination of this Contract. Consultant will grant BACWA and its representatives to access upon request to all such records and all other books, documents, papers, drawings, and writings of Consultant that refer or relate to this Contract.

7. All drawings, specifications, reports, programs, manuals, and other work product of Consultant that result from this Contract ("Work Product") will be considered the exclusive property of BACWA. Consultant agrees that it will not use, disclose, communicate, publish or otherwise make available to third parties any products, analyses, data, compilations, studies, proposals, technical or business information, and any other information related to the Services provided to BACWA without BACWA's prior written approval.

8. The Consultant expressly agrees to indemnify, defend and hold BACWA, its officers, and directors, free and harmless from and against any and all loss, liability, expense, claims, costs, suits and damages, including attorney's fees, arising out of negligence of the Consultant's work and or performance under this Contract, excepting only such injury or damage as may be caused by the negligence of BACWA.

9. This contract shall automatically terminate on June 30, 2020. Either party may also terminate this Contract in whole or in part at any time for its convenience. For a termination for convenience, the termination will be effective thirty (30) days following receipt of a written notice of termination by one party from the other.

10. This contract is non-exclusive. Contractor is free to perform services for his or her other clients outside the scope of this Agreement, provided such services do not create a conflict of interest with BACWA.

This Contract constitutes the entire, legally binding contract between the parties regarding its subject matter. No waiver, consent, modification or change of terms of this Contract is binding unless in writing and signed by both parties.

The following document is incorporated into and made a part of this Contract. Any conflicts between this document and this Contract will be resolved in favor of this Contract.

Exhibit A — Scope of Work

CONSULTANT: Jennifer Dyment

829 Pomona Ave
Street Address

Albany, CA 94706

City, State, Zip Code

Tax Identification No.

Consultant Signature

Date

Name, Title

Date: Feb 21, 2020

BACWA Signature

Lori Schectel, BACWA Executive Board Chair

Name, Title

Exhibit A
BACWA ASSISTANT EXECUTIVE DIRECTOR
SCOPE OF SERVICES

CONSULTANT will act as the Assistant Executive Director and provide professional services as requested by the BACWA Executive Director (ED) to support BACWA and its Special Programs at a rate of $65.00/hour consistent with the following key activities:

1. Financial Management

- Communicate and coordinate with EBMUD Accounting to ensure proper and timely processing of contracts, invoices, dues and contributions to specific accounts and payments to BACWA vendors;

- On a monthly basis scan the EBMUD Treasurer's Report for consistency with BACWA's requests for payment of invoices and update the BACWA budget to actual revenue and expense spreadsheet;

- Coordinate with EBMUD Treasurer on the amount of reserves invested in longer term accounts to ensure that BACWA cash flow needs are met;

- Assist with annual budget development and management;

- Act as an intermediary between Project Managers and EBMUD Accounting to track revenues and expenditures for specific projects and Special Programs;

- Provide recommendations and support for revisions to accounting processes and financial reporting,

- Assist in developing contracting and fiscal policies for BACWA.

2. Meeting Support

- Attend monthly BACWA Board meetings and selected other meetings;

- Assist Executive Director in developing the Executive Board agenda and meeting packet; prepare and distribute meeting minutes;

- Work with the ED, Committee Chairs, consultants, and Project Managers on coordination, preparation, attendance, recordkeeping, meeting facilitation and follow up for special meetings, including but not limited to the following: Budget Planning Workshops, Pardee Technical Seminar, Annual Membership Meeting, Committee or BACWA-sponsored training and workshops.

- Assist with the coordination and facilitation of other meetings (e.g., Committee meetings) as requested by the ED.

3. Document Management

- Manage retention, organization, maintenance and storage of BACWA electronic and paper files;

- Maintain electronic records of policies, procedures, forms, and templates.

- Work with ED, Committee Chairs, and Project Managers to draft, edit, and execute contracts, amendments, contract scopes, and approval forms (e.g. Board Action Request (BAR)), Executive Director Authorizations, Chair Authorization, Travel Request), and other agreements;

- Compile background information or supporting documentation in response to requests from ED, Project Managers, and Committee Chairs;

- Act as BACWA's Filing Official and Filing Officer for Statements of Economic Interest as required by FPPC;

4. Communication and Website Management

- Manage the delivery of documents and information to members, including e-mail correspondence;

- Maintain BACWA contacts and distribution lists;

- Assist with the development of the BACWA Annual Report, including working with ED, Consultants, and Committee Chairs to compile content, edit draft, and oversee production and distribution;

- Assist with the delivery of selected communications to the RWQCB, including invitations to meetings, and formatting and submitting comment letters;

- Create, maintain and revise website content;

- Coordinate website revisions with consultants and Committee Chairs, including maintenance of the dynamic calendar and uploading of promotional materials;

- Provide content management system instructions for committees and others as needed;

- Manage BACWA private website user authorization;

- Assist ED with the development and implementation of communications plan, including website improvements and a newsletter;

- Respond to inquiries from the general public and members.

5. Miscellaneous

- Assist with other tasks and projects upon request from the ED

EXECUTIVE BOARD AUTHORIZATION REQUEST

AGENDA NO.: 6

MEETING DATE: September 17, 2021

TITLE: Request for BACWA Executive Board Approval to Execute Amended Agreement with the San Francisco Estuary Institute (SFEI) for Phase 1: Study design, coordination of PFAS sample collection, data quality assurance and reporting.

☐ **RECEIPT** ☐ **DISCUSSION** ☐ **RESOLUTION** ☒ **APPROVAL**

RECOMMENDED ACTION

Authorize the execution of an amended agreement with SFEI to manage Per- and Polyfluoroalkyl Substances (PFAS) Monitoring for Bay Area Publicly-Owned Treatment Works, Phase 1: Study design, coordination of sample collection, data quality assurance and reporting in an amount not to exceed $73,500.

SUMMARY

In July 2020, the State Water Board issued a 13267 Investigative Order to POTWs around the State to complete one year of monitoring for a suite of PFAS compounds in influent, effluent, and biosolids. The State Water Board estimated that the total cost for each facility of conducting the sampling and preparing the reports required by this Order is in the range of $5,000 to $25,000 for sampling and reporting. Region 2 POTWs were excluded from this Order with the understanding that they would work with SFEI's San Francisco Bay Regional Monitoring Program (RMP) to develop a POTW monitoring study that focuses more on data management and synthesis, in return for reduced monitoring comparted to the 13267 Order. BACWA will fund and manage the study on behalf of its members.

SFEI developed and implemented a study to investigate PFAS in matrices from Bay Area POTWs to inform the monitoring strategy and program decisions for the RPM and address monitoring needs for the State Water Board. The study is a two-phase study, with Phase 2 to be developed and funded via a new contract in Fall 2021.

In order to adequately support the PFAS Phase 1 study and at the direction of the BACWA Executive Director, SFEI performed tasks that were out of the scope of the original contract. This amendment seeks to expand the contract amount to include those out-of-scope items**.** This amendment will also extend the contract termination date from September 30, 2021 to December 31, 2021 to allow completion of Phase 1 tasks.

FISCAL IMPACT

This amendment increases the contract amount by $8,500. The FY22 April 17, 2021 approved budget includes $140,000 for the PFAS Special Study. There is $42,948 remaining from the original Phase 1 contract, so with this additional $8,500 for Phase 1, $88,552 will remain in the CEC budget line item to fund Phase 2 efforts.

ALTERNATIVES

1. Shift out-of-scope tasks to Phase II contract. This alternative is not recommended since the amended tasks are needed to support Phase 1 efforts.

Attachments:
Agreement 1: SFEI Contract amendment #1
Amended Scope of Work and budget
August 21, 2020 SFEI Contract

Approved: _____ Date: __September 17, 2021
Amit Mutsuddy, Chair,
BACWA Executive Board

AMENDMENT NO. 1
TO AGREEMENT BETWEEN
BAY AREA CLEAN WATER AGENCIES and
The SAN FRANICSCO ESTUARY INSTITUTE

FOR

Professional Services related to conducting the PFAS Special Study Phase 1

This Amendment No. 1 is made this 17th day of September 2021, in the City of Oakland and County of Alameda, State of California, to that certain agreement of August 21, 2021 (original agreement), by and between the San Francisco Estuary Institute and Bay Area Clean Water Agencies, (BACWA) (the "Agreement") in consideration of the covenants hereinafter set forth.

1. BACWA and SFEI agree to an amended contract amount of $73,500 for Professional Services related to conducting the PFAS Special Study Phase 1.

2. BACWA and SFEI agree to an amended Scope of Work.

3. Except as herein expressly modified, the Agreement will remain in full force and effect.

BAY AREA CLEAN WATER AGENCIES

September 17, 2021

By _____ Date _____

Amit Mutsuddy, Chair
BACWA Executive Board

By _____ Date _____

Warner Chabot, Executive Director, SFEI

Exhibit A

Scope of Work (SOW)

Amended 9/17/2021

Professional Services by San Francisco Estuary Institute (SFEI)

Period of 8/21/2020 - ~~9/1/2021~~ **12/15/2021**

Scope of Work: Per- and Polyfluoroalkyl Substances Monitoring for Bay Area Publicly-Owned Treatment Works, Phase 1: Study design, coordination of sample collection, data quality assurance and reporting

Objective: San Francisco Estuary Institute (SFEI) will develop and implement a study to investigate per- and polyfluoroalkyl substances (PFAS) in matrices from Bay Area Publicly-Owned Treatment Works (POTWs) to inform the monitoring strategy and program decisions for the Regional Monitoring Program for Water Quality in San Francisco Bay (RMP) and address monitoring needs for the State Water Board. The study is currently envisioned as a two-phase study.

Phase 1 will analyze samples from a representative set of Bay Area POTWs to measure concentrations of PFAS in wastewater influent, effluent, biosolids, and reverse osmosis concentrate. Tasks to be undertaken by SFEI in Phase 1 consist of project management, study design, coordination of sample collection, data management and quality assurance, data upload, and reporting (described in Tasks 1 through 5 below). This Scope of Work does not include the cost of laboratory analysis of samples; BACWA is expected to develop a separate contract with a commercial laboratory to cover analytical costs.

Some of the management questions that will be explored via Phase 1 include the following:

- What are concentrations of PFAS entering POTWs (through influent) and discharged to the Bay or ocean (through effluent or reverse osmosis concentrate)?
- What are concentrations of PFAS in biosolids?
- Are there suggestive relationships between service population characteristics and levels of PFAS in influent? Do levels and patterns of PFAS in wastewater indicate unique and/or elevated sources of PFAS in some service areas?
- Have concentrations of specific PFAS in effluent changed relative to monitoring conducted in 2014 and earlier?
- Do specific PFAS concentrations (including estimate of total oxidizable precursors) increase or decrease during treatment? Are there clear differences in liquid/solid partitioning between secondary and advanced secondary facilities?

This Scope of Work describes only Phase 1 of the study. Phase 2 is expected to start immediately after the end of Phase I during the summer of 2021. Phase 2 monitoring, informed by Phase 1 results, is expected to include additional monitoring at select POTWs, and will be designed to explore specific research questions to inform management decisions.

Task 1: Project Management (Budget: $1,800)

SFEI will provide a final workflow diagram for the completion of Tasks 2 through 5 of this Scope of Work, with key decision points noted, and an associated schedule.

SFEI will conduct project management activities, including:

- Supervise, coordinate, and monitor project progress and sub-contracts in conformance with best practices and other governing agency requirements;
- Notify BACWA of any changes in scope or budget as soon as possible and propose actions if necessary to correct these changes;
- Maintain communication with BACWA by being available by phone or e-mail and responding in a timely fashion;
- Maintain project files; and
- Provide quarterly invoices to BACWA.

Task 2: Sampling and Analysis Plan Development and Implementation (Budget: $13,000)

By September 15, 2020, or 30 days from the issuance of the notice to proceed, SFEI will provide a draft sampling and analysis plan (SAP). The SAP will be developed in consultation with BACWA and the Water Boards to select a representative set of POTWs to monitor wastewater influent, effluent, biosolids, and reverse osmosis concentrate. SFEI will also support BACWA in selecting and contracting with a commercial laboratory with appropriate PFAS accreditation and using methods consistent with statewide investigation orders.

BACWA and the Water Boards will have the opportunity to provide comments on the draft SAP before it is finalized, and it is expected that final comments will be received within fourteen days of receiving the draft SAP. BACWA and the Water Boards will approve the final SAP before it is implemented. Delay in receiving approval for the SAP may delay implementation of monitoring activities.

At a minimum, the SAP will include the following elements:

- Identify specific POTWs that represent the range of POTWs in the Bay; this will include the largest facilities that account for the majority of wastewater flows to the Bay, as well as a range of medium and small facilities that discharge to the Bay. It is estimated that between 10-15 POTWs will be selected to participate in the study. Selected POTWs will be representative of geographic distribution, presence of various industries that are potential sources of PFAS, and different proportions of residential, commercial, and industry service populations. To support selection of POTWs, BACWA and all POTWs in Water Board Region 2 will promptly (within two weeks) provide answers to the POTW Information Questionnaire in the State Water Board's investigation orders. The POTW Questionnaire will be uploaded to GeoTracker by the individual POTWs.
- Detailed description of sampling design and instructions on how samples should be collected. Sample collection methods will be consistent with statewide investigation orders. Specification of when samples should be collected will also be provided to make

sure samples are representative of dry weather conditions and comparable within the sample set.

- Description of laboratory analyses to be conducted:
    - Targeted analysis of PFAS in influent, effluent, reverse osmosis concentrate, and biosolids from participating POTWs for PFAS consistent with statewide investigation orders.
    - Total oxidizable precursor (TOP) PFAS analysis in influent and biosolids to screen for the presence of PFAS precursors that are not captured in the targeted analysis.
- Essential quality assurance and quality control considerations. A project-specific Quality Assurance Project Plan will not be developed due to time constraints for initiating this study and budget limitations. Analytical results will be evaluated using Quality Assurance/Quality Control (QA/QC) criteria for PFAS specified in the Department of Defense (DoD) Quality Systems Manual (QSM) dated 2017, version 5.1 or later. PFAS sampling guidelines specified by the State Water Board, including description of products and materials that should be avoided to prevent PFAS contamination of samples, will also be included. Relevant field sampling QA/QC criteria for this study specified in the RMP QAPP, such as recommended number of field blanks and field duplicates per number of field samples, will be explicitly stated in the SAP. Likewise, the RMP QAPP process for data evaluations, including steps to address data that do not meeting QA/QC criteria will be followed and explicitly included in the SAP for the Water Boards to review and approve.

Guided by the SAP, SFEI will coordinate sample collection and handling procedures with the POTWs and the analytical laboratory, to ensure sampling is completed and quality control measures are met.

Schedule and Deliverables

- Questionnaire for BACWA POTWs regarding service population: Wednesday, August 26, 2020. Responses expected by Friday, September 4, 2020.
- Draft Sampling and Analysis Plan: Friday, September 25, 2020; Comments from BACWA and Water Boards expected by Friday, October 9, 2020.
- Final Sampling and Analysis Plan: Wednesday, October 28, 2020.
- Support Sample Collection: October 28 - November 30, 2020.

Task 3: Data Management and QA/QC Review (Budget: $23,000)

It is expected that the laboratory results will be reported in a single batch for each matrix that includes analytical results from all participating facilities. Specific tasks required of SFEI include:

- Set up the EDD template for targeted analytical results and coordinate with the laboratory to populate the EDD template accurately according to standardized format.
- Provide additional data formatting as necessary for reporting.

- Review analytical results compared to quality control considerations specified in the SAP and QA/QC criteria specified in DoD Table B-15 of Quality Systems Manual (QSM), dated 2017, version 5.1 or later. Data results will not be modified, and data that do not meet QA/QC criteria will be flagged as described in the SAP.
- Prepare QA summary for reporting and data evaluation purposes that will be included in the monitoring report.

Schedule and Deliverables

- QA summary within 60 days of receiving data results from the analytical laboratory.

Task 4: Data and Report Upload to GeoTracker (Budget: $4,200)

Within 60 days of receiving the final analytical laboratory report, SFEI will upload an Electronic Data Format (EDF) of the analytical results into the Water Board's GeoTracker system on behalf of BACWA and participating POTWs. The budget is based on the assumption that site information for each participating facility is already in the GeoTracker system; additional site information may need to be added to the GeoTracker system, and will be done by the participating facility.

Within 90 days of the receipt of the final analytical laboratory report, SFEI will upload a monitoring report via GeoTracker's ESI portal. One monitoring report will be developed for the Phase 1 study, which will be submitted on behalf of each facility. It is expected that each facility will provide SFEI with information about the sampling locations, flow measurements, and flow measurement devices used during sampling in a timely manner. SFEI will compile all reported data (analytical results, QA/QC analyses, any deviations from the SAP reported from each facility, and sampling locations and flow measurements reported by each facility) into one monitoring report.

Schedule and Deliverables.

- Analytical results uploaded to the GeoTracker system within 60 days of receiving the final laboratory analytical report.
- Monitoring report submitted to the GeoTracker system within 90 days of receiving final laboratory analytical report.

Task 5: Preliminary Data Analysis and Technical Memo (Budget: $23,000)

SFEI will analyze data and present results addressing management questions to BACWA and the Water Boards. SFEI will also provide recommendations for Phase 2 monitoring informed by Phase 1 results. Results and recommendations will be summarized in a technical memo. Possible questions that may be answered during Phase 1 and possible Phase 2 monitoring strategies are shown in Table 1.

Table 1: Phase 2 monitoring strategies

Possible Phase 1 Result Questions	Possible Phase 2 Monitoring Strategy
What subset of POTWs warrant a second round of influent, effluent monitoring?	Conduct second-round monitoring at subset of POTWs, particularly the largest facilities, those with historic data (trends), and possibly additional medium or small facilities if patterns are different from large facilities.
Do variations in biosolid concentrations warrant additional monitoring and at more POTWs?	Conduct follow-up biosolids monitoring at subset or all POTWs**.**
Do data indicate a significant presence of precursors?	Conduct additional target, TOF, TOP, suspect screening analyses in influent, effluent, biosolids (Collaboration with UC Davis).
Do results indicate different PFAS patterns from different service populations? Do data indicate unusual analytes or patterns that indicate unique sources?	Investigate possible unique sources or uses in sewershed (target, TOP on influent) (Collaboration with specific POTWs).

Schedule and Deliverables

- Technical memo describing preliminary Phase 1 monitoring results and recommendations for Phase 2 monitoring strategies and identification of decisions points: ~~second~~ **third** quarter of 2021. A final report will be provided at the completion of Phase 2 monitoring and is not included in this SOW.
- Revised scope of work that includes Phase 2 monitoring: one month after receiving comments on technical memo.

Task 6: Additional Work to Complete Sampling and Analysis Plan (Budget $2,500)

SFEI performed additional work to complete the SAP, which were not included in Task 2. Additional tasks performed included:

- **Online Google Form questionnaire was developed to make it easier for POTWs to answer and submit answers about their plant operations.**
- **SFEI presented study design and results in webinars and presentations to BACWA (including Lab Committee meeting 8/11/21, BACWA Board Meeting 8/21/2020, Annual Meeting 2/19/2021, study participants meeting 7/13/2021, Lab Committee meeting 8/10/2021, BACWA Board meeting 8/20/21) as well as to Summit Partners (10/28/2020) meetings.**
- **Dublin San Ramon was added to the SAP at the request of the State Water Board. This involved discussions with the State Water Board, City of Livermore, Dublin San Ramon Service District and changes to the original SAP.**

Task 7: Additional Work to Complete Geotracker Reporting ($6,000)

SFEI performed additional work to complete reporting PFAS data results and monitoring report to Geotracker, which were not included in Task 4. Additional tasks required included:

- **Uploaded data and monitoring report to Geotracker for additional facilities that were not included in original budget.**
- **Provided additional support to participating POTWs to complete Geotracker uploading requirements, including adding sampling points to Geotracker, formatting data for upload, coordinating with State Water Board on reporting requirements.**

Table 2: Budget

Task	Description	Budget
1	Project Management	$1,800
2	Sampling and Analysis Plan Development and Implementation	$13,000
3	Data Management and QA/QC Review	$23,000
4	Data and Report Upload to GeoTracker	$4,200
5	Preliminary Data Analysis and Technical Memo	$23,000
6	**Additional Work to Complete SAP**	**$2,500**
7	**Additional Work to Complete Geotracker Reporting**	**$6,000**
	Total	~~**$65,000**~~ **$73,500**

BAY AREA CLEAN WATER AGENCIES PROFESSIONAL SERVICES CONTRACT

This PROFESSIONAL SERVICES CONTRACT, effective 8/21/2020, is between Bay Area Clean Water Agencies ("BACWA"), a joint powers agency which exists as a public entity separate and apart from its Member Agencies, created January 4, 1984 by a Joint Powers Agreement between Central Contra Costa Sanitary District, East Bay Dischargers Association, East Bay Municipal Utility District, the City and County of San Francisco and the City of San Jose, with a mailing address of P.O. Box 24055, MS 702, Oakland, CA 94623, and the San Francisco Estuary Institute ("Consultant"), a 501 (c)3 Non-Proflt doing business at 4911 Central Ave., Richmond, CA 94904 for professional services as described in any Exhibit A attached hereto.

In consideration of the mutual covenants, stipulations and agreements, the parties agree as follows:

Description and Standard of Services to be Performed

1. Consultant will perform the Services as described by and in accordance with Exhibit A in a manner acceptable to BACWA.
2. Consultant shall not contract with or otherwise use any subconsultants, subcontractors or other nonemployee persons or entities ("Subconsultants") to perform the Services without the prior written approval of BACWA. If Consultant and BACWA agree that Subconsultants shall be used, Consultant shall ensure Subsconsultants' compliance with all the terms and conditions of this agreement.
3. Consultant will exercise that degree of care in performing the Services in accordance with that prevailing among firms of comparable standing in the State of California ("Professional Standard"). Consultant will promptly correct or re-perform those Services not meeting the Professional Standard without additional compensation.
4. Consultant warrants that it is fully licensed, registered and otherwise fully authorized to perform the Services in the State of California to the extent applicable law requires such licensure, registration or authorization.
5. BACWA's review, approval, acceptance, use, or payment for all or any part of the Services hereunder will not alter the Consultant's obligations or BACWA's rights hereunder, and will not excuse or diminish Consultant's responsibility for performing all Services consistent with this Contract.

Payment for Services

6. BACWA will pay Consultant based on the lump sum amounts for the various tasks shown in the scope of work in Exhibit A, up to a maximum amount payable of $65,000. Consultant will not exceed the maximum amount payable without obtaining prior written approval from BACWA.
7. Consultant shall submit invoices quarterly (March, June, September, December), or upon completion of major project milestones, with progress made on each task as indicated by a percent of task completed. Payment will be made based on the lump sum for the task and the percentage of the task completed, as listed in Exhibit B. Invoices shall include the lump sum amount requested and a brief description of the work performed.
8. Payments under this Contract will be due thirty (30) days after BACWA's receipt of invoices. BACWA may withhold from any progress or final payment any damages, backcharges or claims incurred or anticipated by BACWA to the extent caused by Consultant.

Document Ownership and Retention

9. Consultant will maintain all financial records relating to this Contract in accordance with generally accepted accounting principles and for at least three years following termination of this Contract. Consultant will grant BACWA and its representatives access upon request to all such records and all other books, documents, papers, drawings, and writings of Consultant that refer or relate to this Contract.
10. All drawings, specifications, reports, programs, manuals, and other work product of Consultant that result from this Contract ("Work Product") will be considered the exclusive property of BACWA. Consultant agrees that it will not use, disclose, communicate, publish or otherwise make available to third parties any products, analyses, data, compilations, studies, proposals, technical or business information, and any other information related to the Services provided to BACWA without BACWA's prior written approval.

Indemnification

11. To the fullest extent allowed by law, Consultant will indemnify, hold harmless, reimburse and defend BACWA, its Member Agencies, and each of their officers, directors, employees and agents from, for and against any and all claims, demands, damages, losses, expenses, liabilities and penalties, including but not limited to reasonable attorneys' and expert witnesses' fees, arising out of or relating to the Services but only to the extent caused by the negligent or other wrongful acts or omissions of Consultant or any person or entity for whose acts or omissions any of them are responsible, or by the failure of any such party to perform as required by this Contract.

Insurance

12. Consultant will purchase and maintain, at Consultant's expense, the following types of insurance, covering Consultant, its employees and agents:
    a. Workers' Compensation Insurance as required by law, subject to a waiver of subrogation in favor of BACWA;
    b. Employers Liability Insurance with a per accident value at $1,000,000, Policy Limit of $1,000,000 and Each Employee of $1,000,000, subject to a waiver of subrogation in favor of BACWA.
    c. Comprehensive General Liability Insurance covering personal injury and property damage with a combined single limit, or the equivalent, of not less than $1,000,000.00 each occurrence, $2,000,000.00 general aggregate, and naming BACWA as an additional insured.
    d. Business Automobile Liability Insurance with combined single limit coverage of not less than $1,000,000.00 aggregate for each claim, incident, or occurrence; and naming BACWA as an additional insured.

Assignment

13. Consultant will not assign or transfer any of its interest in this Contract, in whole or in part, without the prior written consent of BACWA. BACWA may assign this Contract and any rights relating to this Contract (including but not limited to its right to assert claims and defenses against Consultant) at BACWA's discretion.

Independent Contractor

14. Consultant will perform the Services as an independent contractor. Although Consultant will perform its Services for the benefit of BACWA, and although BACWA reserves the right to determine the schedule for the Services and to evaluate the quality of the completed performance, BACWA does not control the means or methods of Consultant's performance. Consultant is solely responsible for determining the appropriate means and methods of performing the Services, and Consultant's liability will not be diminished by any review, approval, acceptance, use or payment for the same by BACWA or any other party.

Termination of Contract; Suspension of Services

15. This contract shall automatically terminate on June 30, 2022. Either party may also terminate this Contract in whole or in part at any time for its convenience. For a termination for convenience, the termination will be effective thirty (30) days following receipt of a written notice of termination by one party from the other. BACWA may terminate this Contract in whole or in part for cause, in which event the termination will be effective ten (10) days after Consultant's receipt of BACWA's written notice and Consultant's failure during that period to cure the default.

Dispute Resolution

16. Consultant will give prompt written notice to BACWA of any claim, dispute or other matter in question, but in no event will Consultant give such notice later than ten (10) days after Consultant's becoming aware of the event or circumstance giving rise to the claim, dispute or matter in question.
17. All claims, disputes and other matters in question between BACWA and Consultant arising out of or relating to this Contract will be subject to alternative dispute resolution. If both parties agree to arbitration it will be conducted in accordance with the Commercial Arbitration Rules of the American Arbitration Association then in effect. Notice of the demand for arbitration will be filed in writing with the other party to this Contract and with the American Arbitration Association. Any arbitration arising out of or relating to this Contract will include, by consolidation, joinder or joint filing, any other person or entity not a party to this Contract that is substantially involved in a common issue of law or fact and whose involvement in the consolidated arbitration is necessary to achieve a final resolution of a matter in controversy therein. This agreement to arbitrate will be specifically enforceable by any court with jurisdiction thereof.
18. A demand for dispute resolution by either party will be made within a reasonable time after the claim, dispute, or other matter in question has arisen, and in no event will it be made after the date when institution of court litigation based on such claim, dispute or other matter in question would be barred by the applicable period of limitations. For all claims by BACWA against Consultant, the applicable period of limitations will not commence to run, and any alleged cause of action will not be deemed to have accrued (whether such action is based on negligence, strict liability, indemnity, intentional tort or other tort, breach of contract, breach of implied or express warranty, or any other legal or equitable theory), unless and until BACWA is fully aware of all three of the following: (1) the identity of the party(ies) responsible, (2) the magnitude of the damage or injury and (3) the cause(s) of the damage or injury. The contractual limitations period and discovery rule provided herein applies in lieu of any otherwise applicable statute or related case law.
19. The failure of either party to enforce any provision of this Contract will not constitute a waiver by that party of that or any other provision of this Contract.

Severability

20. BACWA and Consultant agree that if any term or provision of this Contract is determined to be illegal, in conflict with any law, void or otherwise unenforceable, and if the essential terms and provisions of this Contract remain unaffected, then the validity of the remaining terms and provisions will not be affected and the offending provision will be given the fullest meaning and effect allowed by law.

Survival

21. All rights and obligations set out in this Contract and arising hereunder will survive the termination of this Contract (i) as to the parties' rights and obligations that arose prior to such termination and (ii) as is necessary to give effect to rights and obligations that arise after such termination but derive from a breach or performance failure that occurred prior to the termination.

This Contract constitutes the entire, legally binding contract between the parties regarding its subject matter. No waiver, consent, modification or change of terms of this Contract is binding unless in writing and signed by both parties.

The following documents are incorporated into and made a part of this Contract. Any conflicts between these documents and this Contract will be resolved in favor of this Contract.

Exhibit A – Scope of Work, Schedule, and Budget

CONSULTANT: San Francisco Estuary Institute

4911 Central Ave.

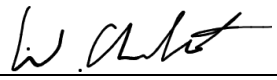
Street Address

Richmond, CA 94904

City, State, Zip Code

94-2951373

Tax Identification No.



09 / 03 / 2020

Consultant Signature

Date

Warner Chabot, Executive Director - SFEI

Name, Title

8/21/2020

BACWA Signature
Amit Mutsuddy, BACWA Executive Board Chair

Date

Name, Title

Identifying Basin Planning needs for addressing SF Bay and Slough nutrient impairment

8/31/2021

Factors to consider

- Likely impairment assessment results
- Likely and possible regulatory actions
- Science/information needs of various BPA options
- Time, effort, and risks of BPA options
- Is BPA needed to support issuance of most likely permits?

Impairment Status Overview

- SF open Bay is not impaired for nutrients
- South SF Bay margins – we lack science to make impairment assessment and need more data to make impairment decision
- South Bay Sloughs – Guadalupe Slough is probably impaired for low DO, and other sloughs may also be impaired depending on the results of the Virginian Province Approach.

Possible regulatory actions to control algae production

- Modify South Bay Salt Pond Restoration Project (SBRPRP) WDRs o reduce low DO and high chl-a loads (WB will consider nutrients along with other restoration priorities)
- Modify WDRs for San Jose for pond A18 if impacts to Coyote Slough complex (similar to above)
- Track large other large scale S Bay projects: e.g. 401 for USACE project in South Bay
- No other current or envisioned WDRs or NPDES permits affecting habitat and restoration
- Other factors: climate change (temp, SLR), use of dredged sediments

Basin Planning options to support regulatory decisions

1. **No BPA** – update WB website to explain NMS and discuss NMS in Permit 3.0 fact sheet and permit docs.
   - Lowest effort and most flexible to adapt to changes in science, climate change, water recycling, pop growth
2. **Light BPA** – Describe NMS in the Basin Plan and discuss ongoing needs for monitoring
   - Medium complexity and effort to describe NMS goals, AF 2.0, monitoring, and triggers in BP.
   - Science will change in next 20 years, BP is not a good place to store basic project information.
3. **BPA with numeric thresholds**, NMS description and program of implementation to achieve objectives and ongoing monitoring program
   - EPA is not pushing for numeric objectives, no external or internal reason to pursue this option.

Key Question:
Is a BPA needed to support permitting and other regulatory actions?

NO, it isn't. Thus, consider that is valuable to document regulatory approach, science needs and environmental changes

Planning Subcommittee Meeting No. 60
August 30, 2021
9:00 am – 12:00 pm
Teleconference
Chair: Tom Mumley
Meeting Notes

Attendees: Tom Mumley, Dave Senn, Eric Dunlavey, Lisa Hunt, Ian Wren, Robert Schlipf, Lorien Fono, Kevin Lunde.

1. *Agenda Modifications*

   None

2. *Review Outstanding Action items*

   - Water Board to develop an outline of science needs to support a Standards Action by late Fall 2021. September meeting will focus on discussion of memo – In progress, update at today's meeting.
   - Water Board to reach out to EPA to discuss their expectations on permitting and standards action – complete
   - Members to collaborate on developing an NMS status document/fact sheet that pulls together planning, permitting, and science – Ongoing, aiming for early 2022.

3. *Program update*

Recent updates- Mooring work is moving ahead with maintenance and deployment. Ari's team completed a field study in August. Two interns did salt pond monitoring this summer.

Lower South Bay slough monitoring and factors influencing blooms synthesis reports are forthcoming. HAB report is under development. Dave has been working on a brief summary of FY21 work. Tetratech has been working on an LSB scoping plan for the Assessment Framework and will plan to have a preliminary report with DO numbers per the VPA by December. The Deep Subtidal assessment framework trends work is ongoing. A manuscript on the trends will be submitted to the Science of the Total Environment journal. Source apportionment work is about 99% done. The model advisory group planning meeting is scheduled for Sept 7.

Staffing – A junior scientist, Lillia, starts this week, and another new hire is planned. Derek Roberts has accepted a position in private industry. There was a discussion about the salary levels for different job classifications at SFEI and how to retain talent. This is also an opportunity to re-envision the staffing roles for the NMS.

4. Priority Updates

NMS Calendar & discuss merits of canceling Sep SC mtng – The group was in agreement that there wasn't a lot of value in holding the September SC meeting. Instead, several upcoming deliverables are planned that we could meet to discuss. There will also be special meetings for planning the Model Advisory Group and Assessment Framework efforts. The science team will develop a brief email with updates.

NMS Calendar Review – Next NMS meeting is scheduled for October 6.

5. Other Updates

Water Board update of science program needs
Kevin shared a presentation, *Identifying Basin Planning needs for addressing SF Bay and Slough nutrient impairment*. The Water Board has been considering likely impairment assessment results; likely and possible regulatory actions, science/info needs of various BPA options; time effort, and risks of BPA options.

There is general consensus among Water Board staff that the SF open Bay is not impaired for nutrients. We lack science to make impairment assessments for the South SF Bay margins. The current NMS plan is not collecting enough data to make an impairment decision. For the South Bay Sloughs, Guadalupe Slough is probably impaired for low DO, and other sloughs may also be impaired depending on the results of the VPA.

Tom clarified that we want a program that avoids impairment in the future, so we need to develop a trigger approach. There was a question about where coastal effects fit into these considerations. The Water Board responded that they did not consider exports from the Golden Gate. We need to track the efforts of the State on quantifying ocean impacts.

There needs to be a discussion about the level of monitoring on the south bay shoals. How can trends be used to define a 303(d) process? There isn't guidance in the State process for using antidegradation as a basis for listings.

Possible regulatory actions to control nutrient loads:
Load caps for POTWs (already in current plan)

- Load reductions collectively or individually near impaired sloughs: need more information.
- Reductions from stormwater sources – no, since *de minimis*
- Consideration of other S Bay sources? Are there any sources under permit or that should be under a permit? No other nutrient permits, since there are no other significant sources

Possible regulatory actions to control algae production:

- Modify South Bay Salt Pond Restoration Project (SBSPRP) WDRs to reduce low DO and high chl-a loads (WB will consider nutrients along with other restoration priorities)
- Modify WDRs for San Jose for pond A18 if impacts to Coyote Slough complex (similar to above)
- Track large other scale S Bay projects: e.g. 401 for USACE project in South Bay
- No other current or envisioned WDRs or NPDES permits affecting habitat and restoration
- Other factors: climate change (T, SLR), use of dredged sediments

Water Board staff concluded that a Basin Plan amendment is not necessary to support permitting and other regulatory actions. Instead, the WSP 3.0 Fact Sheet will describe how NMS will guide permitting decisions. The Water Board will also develop a website to describe their effort.
R2 met with the EPA to ask whether they would push for numeric nutrient limits, and that is not the direction where the EPA is headed.

Eric raised that this structure doesn't consider the disposal of RO concentrate. Lisa asked for clarification about whether margin work should not be a priority. The group agreed that we need to work together to clarify the definition, spatial extent, and science needs for the margins. There's a larger question about who will define the science needs for the rest of the watershed permit. Kevin said that there would need to be another 5 years needed to establish a standards action. This strategy means that the Watershed Permit would be adopted in the normal 5-year timeframe, not the extended timeframe as discussed.

Discussion of USGS Peterson agreement
USGS national office finally decided to continue support for the research vessel and Captain and pass management to the Sacramento Water Science Center. They will not be funding the vessel operations. SFEI is working to develop a multi-year agreement that will capture our program goals. A contract needs to be in place for an October 1 start. Due to pandemic restrictions, we won't be able to make significant changes to the program at this time, and costs will remain the same as currently being paid. New provisions in a contract would include a 5-yr agreement, with a return to more intensive programming post-pandemic. We would want to include a provision on including other NMS/RMP work in the future. The various programs would like increased access to the vessel and crew since they are currently underutilized. The contract would include provisions to identify new science priorities and joint management in the future.

There was general agreement about Dave's proposed approach to developing the agreement to use the R/V Peterson.

6. *Action items:*

- Dave to send out a meeting cancelation to the Steering Committee along with an update on the contract with USGS for use of the vessel.
- Members to collaborate on developing an NMS status document/fact sheet that pulls together planning, permitting, and science – Ongoing, aiming for early 2022.

Parking Lot of Identified PS Future Agenda Items

a. Modeling
b. Outreach to resource agencies re: DO objectives
c. Brainstorming on future priorities for the PS (ALL)
d. EPA nutrient criteria discussion
e. Discuss the concept of holding an annual forum on nutrients
f. Finish

Technical Memorandum

To: **BACWA Executive Director and Board**

From: **Mary Cousins, BACWA Regulatory Program Manager**

Subject: **Proposed Cost Allocation for RMP CEC Studies to be funded by Amended Monitoring & Reporting Order**

Date: **September 10, 2021**

Background

On May 28, 2021, the Bay Area Clean Water Agencies (BACWA) submitted a proposal to the Regional Water Board titled *Proposed Evolution of the 2016 Alternate Monitoring & Reporting Program to Add Support to the Regional Monitoring Program* ("BACWA Proposal"). The proposal requested that the Regional Water Board replace Order R2-2016-0008 (*Alternate Monitoring and Reporting Requirements for Municipal Wastewater Dischargers for the Purpose of Adding Support to the San Francisco Bay Regional Monitoring Program* (RMP), or "2016 Order")) with a new set of monitoring frequency reductions to continue supporting RMP monitoring of Constituents of Emerging Concern (CECs).

Based on this proposal, in August 2021 the Regional Water Board provided BACWA with an administrative draft Tentative Order proposing amendments to individual NPDES permits, the Mercury & PCBs watershed permit, and the 2016 Order. The administrative draft contains fewer monitoring reductions than the full list included in the BACWA proposal, but the overall approach is consistent with the BACWA proposal.

Per the administrative draft and subsequent conversations with Regional Water Board staff, BACWA expects that the Tentative Order NPDES permit amendment will be issued later in September 2021 and will identify a total funding level to be provided to the RMP for CEC studies. The funding level would be adjusted annually to keep pace with inflation, similar to other RMP fee adjustments (about 3% per year in some recent years). The expectation is that the funding level would *not* be adjusted upwards in the future for reasons other than inflation.

In late 2021, each Bay discharger is expected to receive an invoice for 2022 RMP fees that includes a supplemental fee line item to reflect the total cost savings of this program. For purposes of allocating costs among Dischargers, this memo assumes that the total amount will be $320,000 per year, which is comparable to the monitoring reductions from the 2016 Order plus 16% inflation over the last five years. The final amount may vary from this figure, and will be determined by the Regional Water Board.

1. Cost Allocation Methodologies

This memo outlines two potential cost allocation methods for the total funding level for RMP CECs studies. In both approaches, each discharger is assigned a percentage of the overall funding level, and this percentage would be fixed in time going forward. The total fee amount would increase to keep pace with inflation, but each agency's proportional share would remain fixed. The following two approaches are outlined below for identifying the percentage of total cost savings for each discharger:

Method 1: Allocate cost based on expected median cost savings from the administrative draft Order monitoring reductions. These cost savings are specific to each discharger.

Method 2: Allocate cost by weighting three key attributes of each discharger, since these attributes are related to current monitoring frequencies, and thus to proposed monitoring reductions:

- Major vs. minor dischargers as identified in the Mercury & PCBs watershed permit (Weighted at 40%)
- Dischargers with or without pretreatment program monitoring requirements in their NPDES permit (50% weighting)
- A flat fee for all dischargers (10% weighting)

Other weightings are possible; the weightings above result in a fairly high correlation to Method 1 costs allocation (R^2 = 0.88) while offering the advantage of a lower reliance on assumed savings from chronic toxicity screening studies compared to Method 1.

For both approaches, Crockett Community Services District's Port Costa facility and Sanitary District No. 5 of Marin County's Paradise Cove treatment facility are not included in the cost sharing proposal (i.e., the cost allocation is set to 0%). The estimated cost savings for these two agencies is less than $200 per year, and neither contributes to core RMP fees. The effort of generating invoices for these two facilities will place an administrative burden on the RMP with very little financial benefit.

Table 1 below shows estimated total cost savings from each element of the administrative draft Order.

Table 1. Estimated Total Cost Savings from Administrative Draft Order

Parameter	Estimated Cost Savings ($/Year for Region)
a. Dioxin-TEQ	$40,000
b. Effluent VOCs and BNAs	$26,000
c. PCBs (as aroclors)	$13,000
d. Effluent Mercury	$126,000
e. Influent Mercury	$13,000
f. Influent VOCs and BNAs	$12,000
g. Biosolids VOCs and BNAs	$7,000
Subtotal	**$237,000**
h. Chronic Toxicity	$83,000 (See note in text below)
Total	**$320,000**

In the table above, the estimated cost savings for items (a) through (g) are based on the median unit costs identified in the May 2021 BACWA proposal combined with the specific monitoring reductions proposed in the administrative draft Order. Costs for items (f) and (g) have been slightly adjusted to correct minor technical errors in the administrative draft, and were reflected in BACWA's comments to the Regional Water Board on the administrative draft.

The total estimated cost savings for item (h), chronic toxicity screening studies, is listed as $83,000 per year in Table 1. This reflects a downward adjustment from the cost savings of $140,000 per year identified by the Regional Water Board in the administrative draft. The cost savings from this item are less certain than items (a) through (g) because they depend on adoption of the Statewide Toxicity Provisions, so this line item was adjusted downwards in order to bring the overall total to $320,000.

For cost allocation Method 1, the cost savings from chronic toxicity were divided equally among the 35 dischargers that were assumed to have to conduct chronic toxicity screening studies in the future, once the Statewide Toxicity Provisions go into effect.

Estimated cost savings per agency based on this allocation method are shown in the attached **Table 2** at the end of this memorandum. There are some minor discrepancies between the totals in Table 1 and Table 2 due to rounding. Also, some cost savings for individual agencies are negative for specific monitoring reductions (example: Influent VOCs and BNAs for Delta Diablo). This is the case when an agency will be required to do more monitoring, not less, as a result of the administrative draft Order. Delta Diablo and SSF-San Bruno reported that their respective agencies are already monitoring at the higher frequency by choice, and the change will not actually result in increased costs.

Example comparisons between the two allocation methods and a comparison with the fees identified in the 2016 Order are shown below in **Figure** 1 and **Figure 2.** A brief discussion follows the figures.

Figure 1. Example of Cost Allocation Options for Larger Dischargers

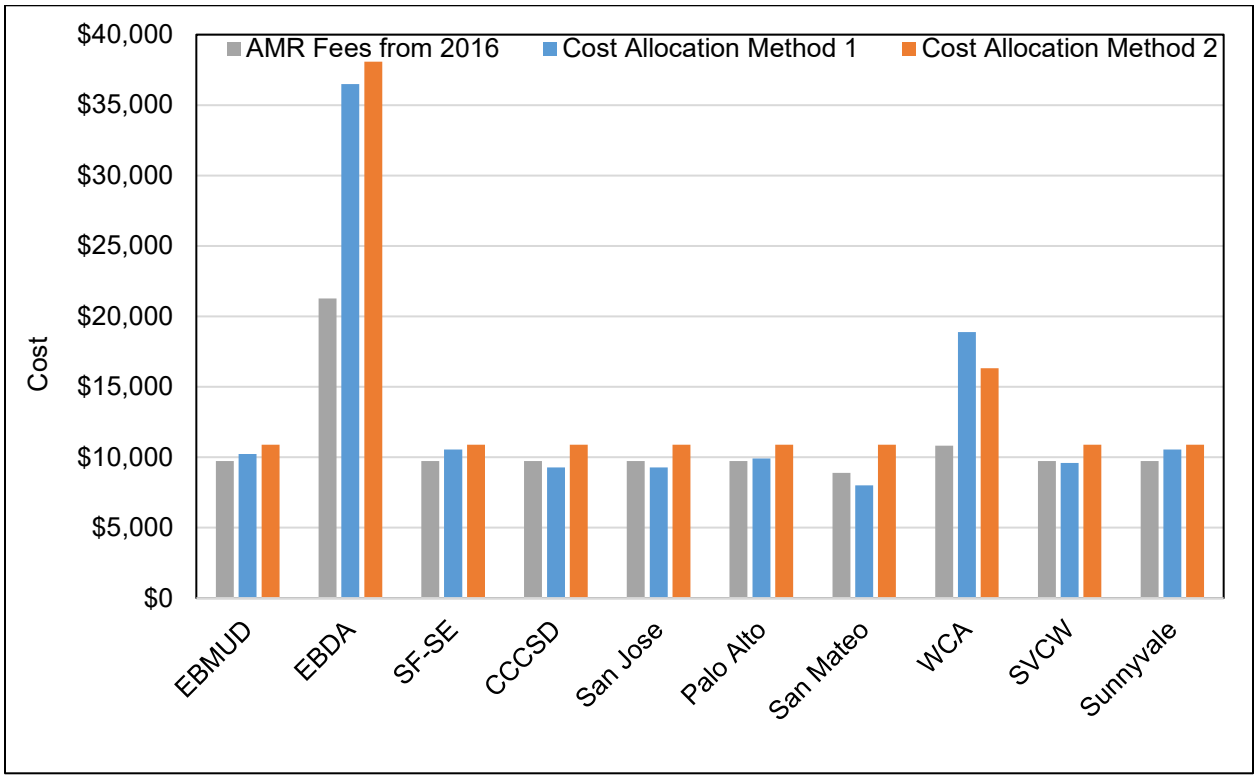
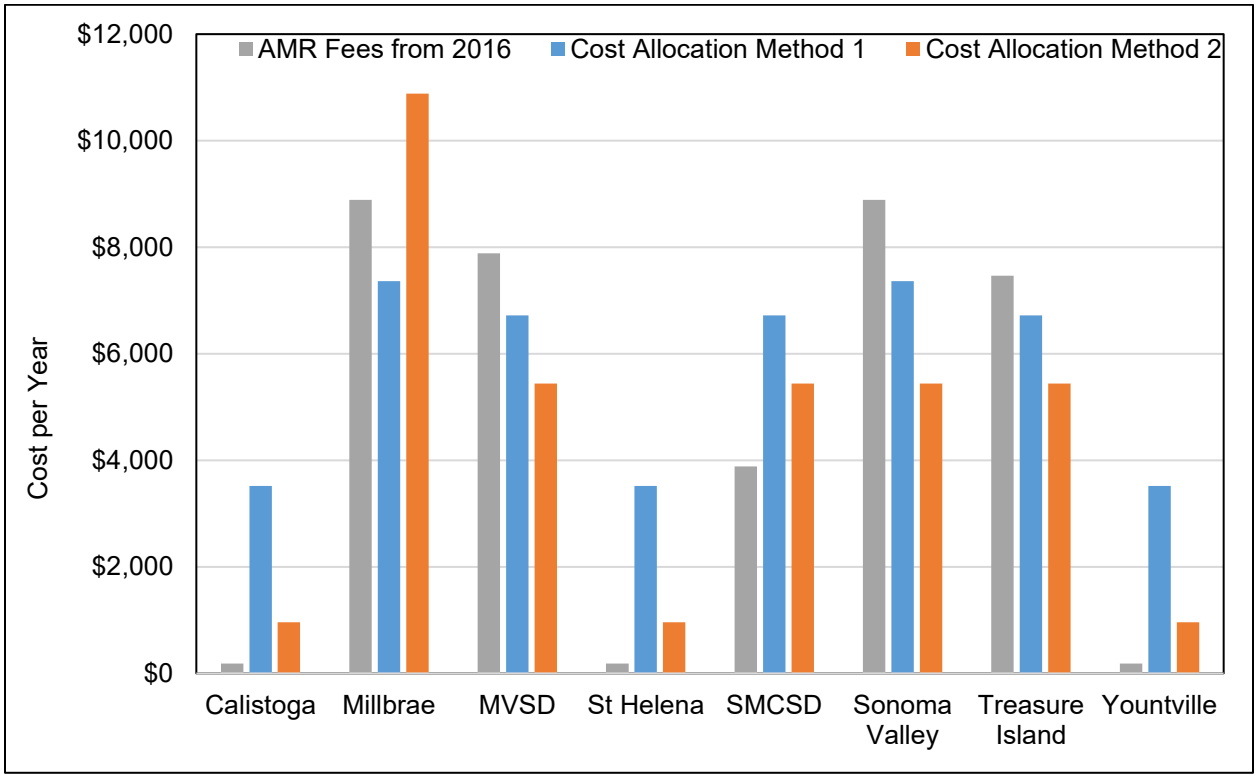


Figure 2. Example of Cost Allocation Options for Smaller Dischargers



2. Discussion of Cost Impacts

- For several large dischargers – notably EBDA and West County Agency – both cost allocation methods show a significant increase compared to the 2016 Order. The reason for the change is that the administrative draft Order contains several monitoring reductions that are part of pretreatment programs. These monitoring reductions were not included in the 2016 Order, and they scale with the number of pretreatment programs operated by each agency (6 in the case of EBDA, 2 in the case of West County Agency). This is a feature, not a bug, in the cost allocations, because these agencies will benefit from decreased pretreatment-related monitoring requirements for influent, effluent, and biosolids.

- The difference between cost allocation Methods 1 and 2 is more noticeable for smaller dischargers (see Figure 2) than for larger dischargers (see Figure 1). The difference is attributed to the way chronic toxicity screening costs are handled. Several smaller dischargers (Calistoga, St. Helena, and Yountville) did not have cost savings identified from chronic toxicity screening in the 2016 Order, because their individual NPDES permits do not require re-screening. This is expected to change in the future as a result of the Statewide Toxicity Provisions, so cost allocation Method 1 assumes a cost savings for these agencies. Cost allocation Method 2 places less weighting on cost savings from chronic toxicity screening studies because it is reflected only in the "flat fee per discharger" weighting factor, which is only 10% of the total.

Figure 2

- The main advantage of cost allocation Method 1 is that is tracks most closely with assumed cost savings in the administrative draft.

- The main advantage of cost allocation Method 2 is that it has lower costs for smaller dischargers. Compared to Method 1, Method 2 de-emphasizes cost savings from future chronic toxicity screening studies. Since these costs are highly uncertain, this method is potentially more fair to smaller dischargers.

Since Method 2 is less burdensome to smaller dischargers, while differing only slightly from Method 1 for most larger dischargers, Method 2 is the recommended approach.

BACWA BAY AREA CLEAN WATER AGENCIES

Table 2. Comparison of Estimated Cost Savings and Proposed Cost Allocation Methods for each Discharger

Display Name	Current AMR Fees	Permitted ADWF (MGD)	Estimated Cost Savings from Monitoring Reductions in Administrative Draft (See Table 1)									Proposed Allocation Method 1		Proposed Allocation Method 2	
			a. Dioxin-TEQ	b. Effluent VOCs and BNAs	c. PCB Aroclors	d. Effluent Mercury	e. Influent Mercury	f. Influent VOCs and BNAs	g. Biosolids VOCs and BNAs	h. Chronic Toxicity Screening	Total	% Allocation (Rounded to 0.1%)	Rounded Fee Estimate	% Allocation (Rounded to 0.1%)	Rounded Fee Estimate
American Canyon	$9,726	2.5	$640	$1,332	$396	$3,200	$560	$1,332	$1,098	$2,394	$10,952	3.4%	$10,880	3.4%	$10,880
Benicia	$8,886	4.5	$1,440	$592	$396	$3,200	$0	$0	$0	$2,394	$8,022	2.5%	$8,000	1.7%	$5,440
Burlingame, City of and NBSU	$8,886	5.5	$1,440	$0	$396	$3,200	$0	$0	$0	$2,394	$7,430	2.3%	$7,360	3.4%	$10,880
Calistoga	$184	0.84	$0	$0	$176	$800	$0	$0	$0	$2,394	$3,370	1.1%	$3,520	0.3%	$960
Central Contra Costa Sanitary District	$9,726	53.8	$1,440	$0	$396	$3,200	$560	$740	$610	$2,394	$9,340	2.9%	$9,280	3.4%	$10,880
Central Marin Sanitation Agency	$9,181	10	$1,440	$1,332	$396	$3,200	$560	$1,332	$1,098	$2,394	$11,752	3.7%	$11,840	3.4%	$10,880
Crockett CSD (Port Costa)	$184	0.033	$0	$0	$176	$0	$0	$0	$0	$0	$176	0%	$0	0%	$0
Delta Diablo	$8,886	19.5	$1,440	$0	$396	$3,200	$0	-$592	-$488	$2,394	$6,350	2.0%	$6,400	3.4%	$10,880
EBDA Dischargers	$21,282	107.8	$1,440	$4,884	$396	$22,400	$3,360	$592	$488	$2,394	$35,954	11.4%	$36,480	11.9%	$38,080
EBMUD	$9,726	120	$1,440	$1,332	$0	$3,200	$560	$740	$610	$2,394	$10,276	3.2%	$10,240	3.4%	$10,880
Fairfield-Suisun Sewer District	$9,726	23.7	$1,440	$1,332	$396	$3,200	$560	$1,332	$1,098	$2,394	$11,752	3.7%	$11,840	3.4%	$10,880
Las Gallinas Valley Sanitary District	$7,656	2.92	$640	$0	$396	$3,200	$0	$0	$0	$2,394	$6,630	2.1%	$6,720	1.7%	$5,440
Millbrae	$8,886	3	$1,440	$0	$396	$3,200	$0	$0	$0	$2,394	$7,430	2.3%	$7,360	3.4%	$10,880
Mt. View Sanitary District	$7,886	3.2	$640	$0	$396	$3,200	$0	$0	$0	$2,394	$6,630	2.1%	$6,720	1.7%	$5,440
Napa Sanitation District	$7,656	15.4	$640	$592	$396	$2,400	$560	$0	$0	$2,394	$6,982	2.2%	$7,040	3.4%	$10,880
Novato Sanitary District	$9,726	7	$1,440	$1,332	$396	$3,200	$560	$1,332	$488	$2,394	$11,142	3.5%	$11,200	3.4%	$10,880
Palo Alto	$9,726	39	$1,440	$1,332	$396	$3,200	$560	$740	$0	$2,394	$10,062	3.1%	$9,920	3.4%	$10,880
Petaluma	$7,656	6.7	$640	$1,332	$396	$1,600	$560	$1,332	$1,098	$2,394	$9,352	2.9%	$9,280	3.4%	$10,880
Pinole	$8,886	4.06	$1,440	$592	$396	$3,200	$0	$0	$0	$2,394	$8,022	2.5%	$8,000	1.7%	$5,440

Display Name	Current AMR Fees	Permitted ADWF (MGD)	Estimated Cost Savings from Monitoring Reductions in Administrative Draft (See Table 1)									Proposed Allocation Method 1		Proposed Allocation Method 2	
			a. Dioxin-TEQ	b. Effluent VOCs and BNAs	c. PCB Aroclors	d. Effluent Mercury	e. Influent Mercury	f. Influent VOCs and BNAs	g. Biosolids VOCs and BNAs	h. Chronic Toxicity Screening	Total	% Allocation (Rounded to 0.1%)	Rounded Fee Estimate	% Allocation (Rounded to 0.1%)	Rounded Fee Estimate
Rodeo Sanitary District	$8,886	1.14	$1,440	$0	$396	$3,200	$0	$0	$0	$2,394	$7,430	2.3%	$7,360	1.7%	$5,440
Saint Helena	$184	0.5	$0	$0	$176	$800	$0	$0	$0	$2,394	$3,370	1.1%	$3,520	0.3%	$960
San Jose / Santa Clara	$9,726	167	$1,440	$1,332	$396	$3,200	$560	$0	$0	$2,394	$9,322	2.9%	$9,280	3.4%	$10,880
San Mateo	$8,886	15.7	$1,440	$0	$396	$3,200	$560	$0	$0	$2,394	$7,990	2.5%	$8,000	3.4%	$10,880
SD No. 5 of Marin County (Paradise Cove)	$184	0.04	$0	$0	$176	$0	$0	$0	$0	$0	$176	0%	$0	0%	$0
SD No. 5 of Marin County (Tiburon)	$3,886	0.98	$640	$592	$176	$800	$0	$0	$0	$2,394	$4,602	1.4%	$4,480	0.3%	$960
Sausalito-Marin City Sanitary District	$3,886	1.8	$640	$0	$396	$3,200	$0	$0	$0	$2,394	$6,630	2.1%	$6,720	1.7%	$5,440
Sewerage Agency of Southern Marin	$4,886	3.6	$1,440	$0	$396	$3,200	$0	$0	$0	$2,394	$7,430	2.3%	$7,360	1.7%	$5,440
SFO	$8,886	3.4	$1,440	$592	$396	$3,200	$0	$0	$0	$2,394	$8,022	2.5%	$8,000	1.7%	$5,440
SFPUC Southeast	$9,726	85.4	$1,440	$1,332	$396	$3,200	$560	$740	$610	$2,394	$10,672	3.3%	$10,560	3.4%	$10,880
Silicon Valley Clean Water	$9,726	29	$1,440	$1,332	$396	$3,200	$560	$740	-$488	$2,394	$9,574	3.0%	$9,600	3.4%	$10,880
Sonoma Valley County Sanitation District	$8,886	3	$1,440	$0	$396	$3,200	$0	$0	$0	$2,394	$7,430	2.3%	$7,360	1.7%	$5,440
South SF-San Bruno	$8,886	13	$1,440	$0	$396	$3,200	$0	-$592	-$488	$2,394	$6,350	2.0%	$6,400	3.4%	$10,880
Sunnyvale	$9,726	29.5	$1,440	$1,332	$396	$3,200	$560	$740	$610	$2,394	$10,672	3.3%	$10,560	3.4%	$10,880
US Navy - Treasure Island	$7,466	2.0	$640	$0	$396	$3,200	$0	$0	$0	$2,394	$6,630	2.1%	$6,720	1.7%	$5,440
Vallejo Flood and Wastewater District	$9,726	15.5	$1,440	$1,332	$396	$3,200	$560	$740	-$488	$2,394	$9,574	3.0%	$9,600	3.4%	$10,880
West County Agency Dischargers	$10,820	28.5	$1,440	$2,368	$396	$9,600	$1,120	$592	$1,220	$2,394	$19,130	5.9%	$18,880	5.1%	$16,320
Yountville	$184	0.55	$0	$0	$176	$800	$0	$0	$0	$2,394	$3,370	1.1%	$3,520	0.3%	$960
Total	**$289,027**		**$39,680**	**$26,196**	**$12,936**	**$125,600**	**$12,880**	**$11,840**	**$7,076**	**$83,792**	**$320,000**	**100%**	**$320,000**	**100%**	**$319,360**

Biosolids in the Baylands - White Paper Team

Authors:

Jeremy Lowe, San Francisco Estuary Institute

Kate Freeman, Ducks Unlimited

Kendall Webster, Sonoma Land Trust

Renee Spenst, Ph.D., Ducks Unlimited

Sarah Deslauriers, Bay Area Clean Water Agencies / Bay Area Biosolids Coalition

Sponsor:

San Francisco Bay Joint Venture

Agenda

Introductions	9:05 - 9:15
What is the issue?	9:15 - 9:25
What we know: key findings so far	9:25 - 9:55
Q&A	9:55 - 10:05
Prep for breakout groups	10:05 - 10:15
BREAK	10:15 - 10:20
Breakout groups	10:20 - 10:50
Breakout groups: report outs	10:50 - 11:20
Breakout groups: group discussion	11:20 - 11:45
BREAK	11:45 - 12:00
Group discussion: overarching questions	12:00 - 12:40
Next steps and wrap up	12:40 - 1:00

Attendees

Alexis Hacker	Water Board	John McCaull	Sonoma Land Trust
Alison Weber-Stover	NOAA	Julian Meisler	Sonoma Land Trust
Andrew Damron	Napa Sanitation District	Kevin Lunde	Water Board
Anniken Lyndon	Bay Conservation and Development Commission	Lauren Fondahl	Environmental Protection Agency
Bob Neal	Sonoma Land Trust	Lorien Fono	Bay Area Clean Water Agencies
Brenda Goeden	Bay Conservation and Development Commission	Luisa Valiela	Environmental Protection Agency
Carolyn Marn	US Fish and Wildlife Service	Melissa Morton	Vallejo Flood and Wastewater District
Dave Martin	Napa Sanitation District	Maddie Foster-Martinez	University of New Orleans
Eileen White	East Bay Municipal Utility District	Maggie Monahan	Water Board
Ellen Plane	San Francisco Estuary Institute	Mary Cousins	Bay Area Clean Water Agencies
Emma Walton	City of Santa Rosa	Matias Tejero-leon	Water Board
Frances Malamud-Roam	US Army Corps of Engineers	Matthew Hoeft	East Bay Municipal Utility District
Gary Stern	NOAA Fisheries	Matthew Lemmon	Napa Sanitation District
Greg Kester	CASA	Mike Prinz	Las Gallinas Valley Sanitary District
Greg Martinelli	California Department of Fish and Wildlife	Nate Kauffman	UC Berkeley
Jackie Zipkin	East Bay Dischargers Authority	Nick Basta	Ohio State University
James Cameron	Sonoma County Transportation Authority	Rebecca Overacre	East Bay Municipal Utility District
James Keller	Napa Sanitation District	Ryan Batjiaka	SF Public Utilities Commission
Jana Affonso	US Fish and Wildlife Service	Sandra Scoggin	San Francisco Bay Joint Venture
Jessica Davenport	State Coastal Conservancy	Susan de la Cruz	US Geological Survey
		Zach Kay	City of Santa Rosa

Land Acknowledgement

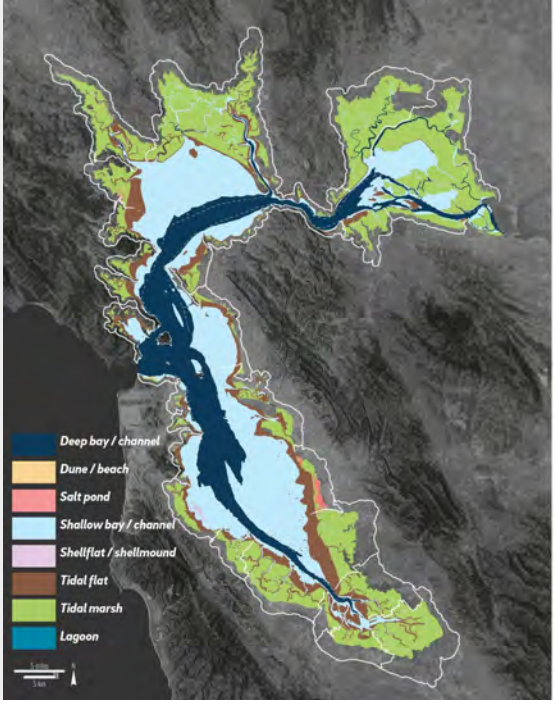
As we pursue our mission of conserving land in the North Bay, we recognize that we stand upon the unceded ancestral lands of many Indigenous peoples. We honor their knowledge, care, and stewardship of this special place across the ages and acknowledge the deep and lasting damage that colonization has inflicted on them. We embrace our responsibility to learn from and protect their cultural and traditional connections to the land.

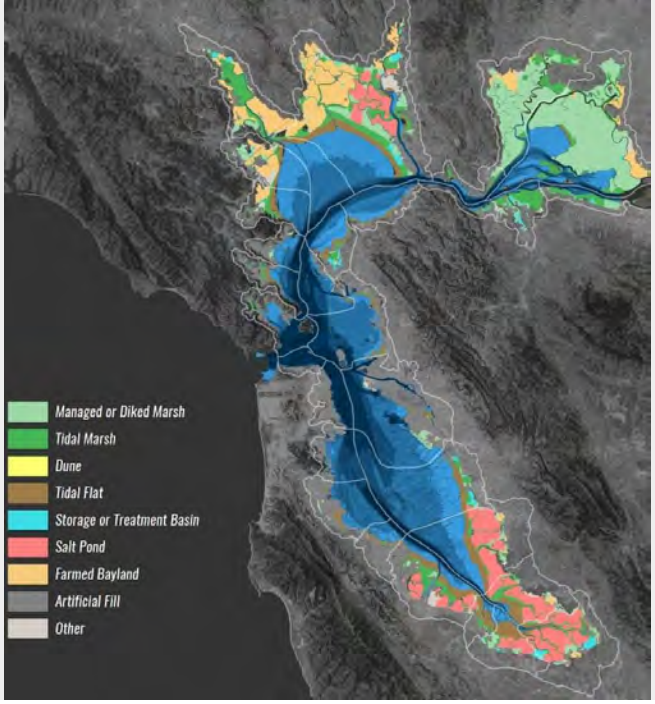
Community issues

- We all contribute to the generation of biosolids.
- Where they end up and how they are used is a community issue.
- Biosolids are beneficial to agricultural lands.
- Land applied biosolids are clean and meet the required criteria.

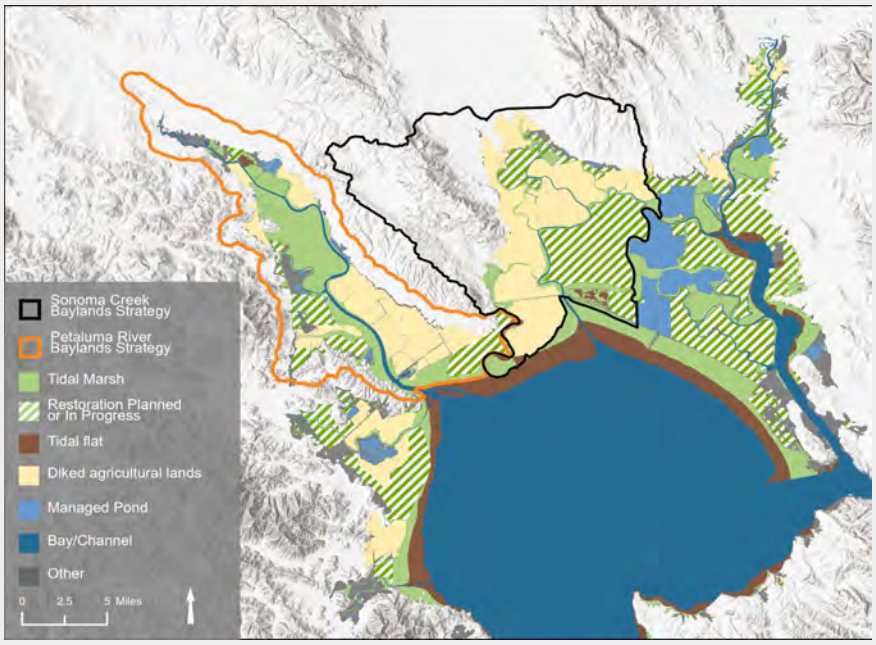
Community issues

- Sea-level rise is also a community issue.
- Restoring tidal wetlands is a key strategy to protect shoreline communities.
- Wetlands are connected to the waters of the Bay and regulated differently.
- These two community issues come together in the diked baylands.





Diked Baylands



Planning for the future

- Agricultural lands can accidentally or intentionally restore to tidal action.
- In coming decades more diked baylands will be restored to the Bay.
- Large scale changes planned for SR37. “Integrate, don’t mitigate”.
- Landowners, transportation, wastewater, and restoration should collaborate.
- Want to avoid surprises.

Two Overarching Questions

(1) Is biosolids land application compatible with future wetland restoration relative to the biosolids constituents impact on human health and wildlife?

(2) Could land application benefit the restoration process?

How to Address Questions?

- New issues not looked at together
  - no single expert on “biosolids in the baylands” planning

- Information needs collating
  - maps and tables drafted to inform a discussion

White Paper

Written collaboratively:

- Biosolids Coalition/BACWA
- San Francisco Bay Joint Venture
- Sonoma Land Trust, SFEI, Ducks Unlimited

Purpose:

- To understand the issues and inform the discussion
- To explore if these shared community needs can be compatible

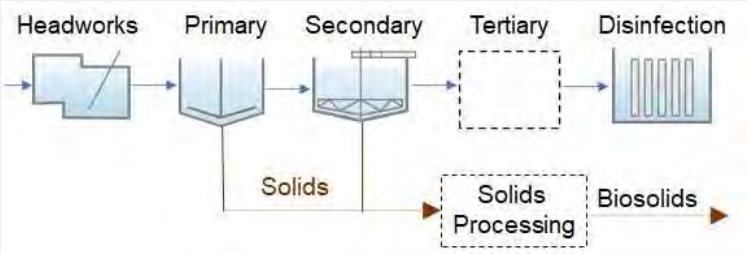
Purpose of the Meeting

Input for the white paper:

- Asking for ideas on how to address knowledge gaps.
- Start a discussion on how these shared community needs can be made compatible.

What We Know: Key findings

Biosolids are “nutrient-rich organic material resulting from the treatment of domestic sewage in a treatment facility.” - U.S. EPA

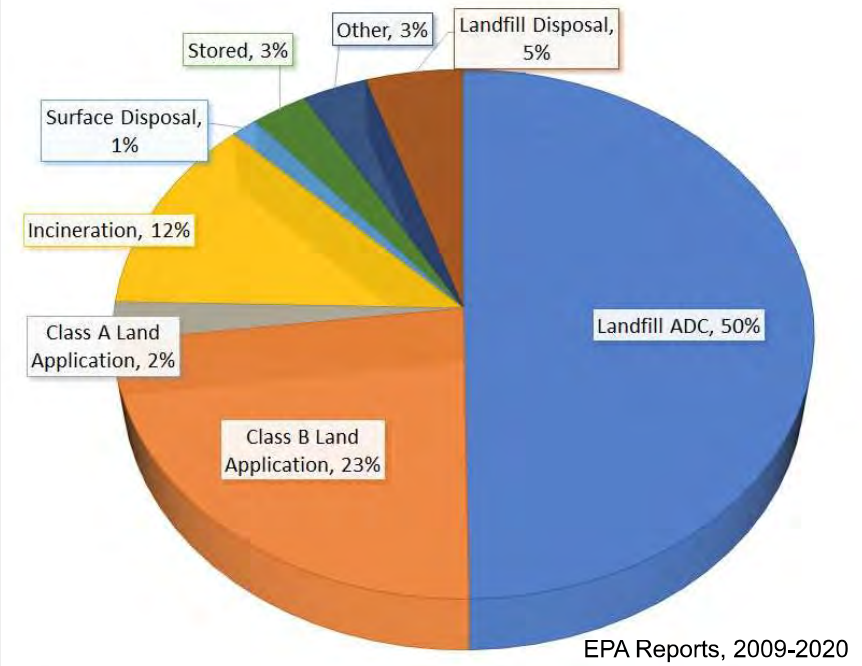


Biosolids

- Offset inorganic fertilizer use
- Increase soil carbon content and stability
- Increase water holding capacity
- Increase nutrient use efficiency
- Increase crop yield
- Sequester carbon in the soil

Dr. Gabby Black
UC Davis
2021

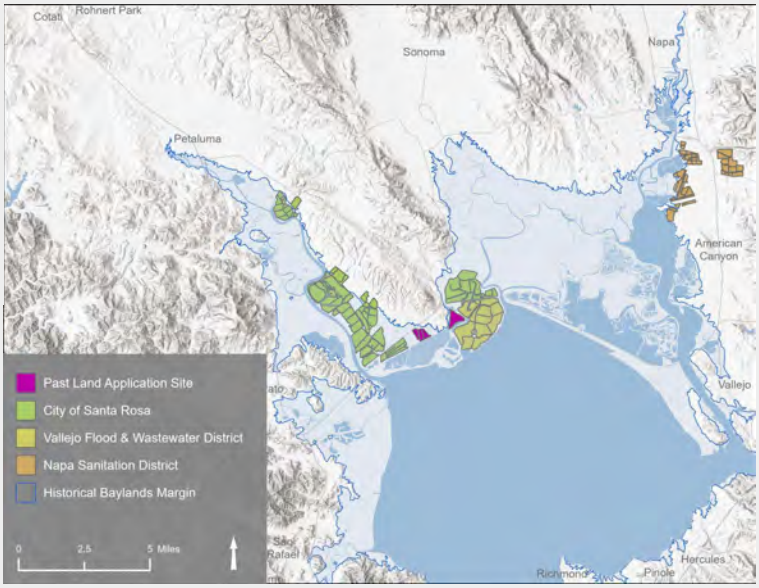
Over the last decade Bay Area biosolids have primarily been used as ADC at landfills or as a soil amendment land-applied to agricultural lands



EPA Reports, 2009-2020

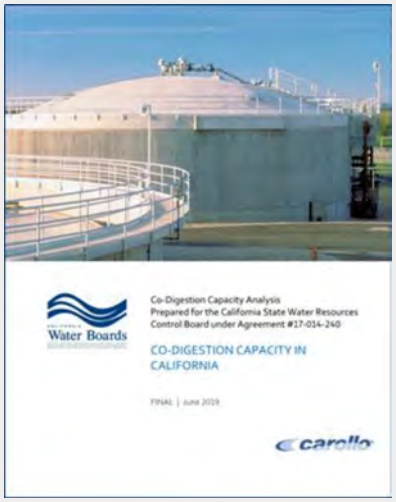
≈ 4.5% of Bay Area biosolids are land applied to agricultural lands within the Baylands…

…recent legislation and new regulations target beneficial use of recycled organics.

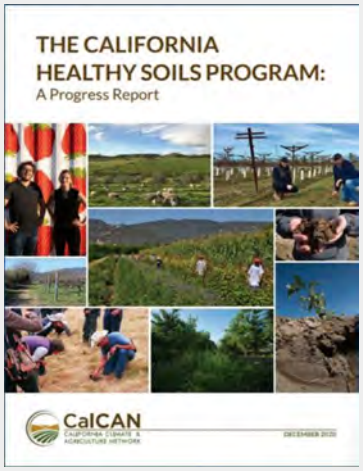


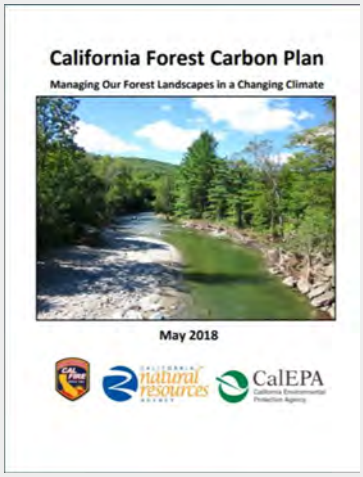
SB 1383 - Short-Lived Climate Pollutant Reduction: Organic Waste/Methane Reduction Regulations

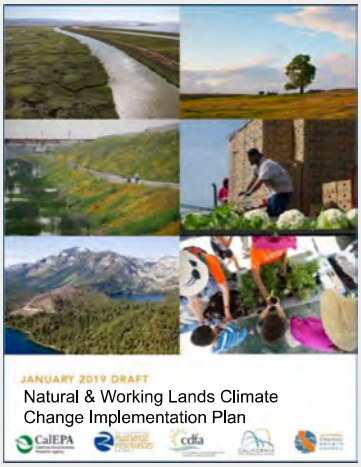
- 40% methane reduction by 2030 (relative to 2013 levels)
- Organic waste diversion from landfills (includes biosolids, digestate, and sludges)
  - 50% by 2020 (relative to 2014 levels)
  - 75% by 2025 (relative to 2014 levels)
- Incentivizes increase in annual biogas production/compost
- Regulations effective: January 1, 2022



Other climate mitigation programs seek to enhance soil health and carbon sequestration







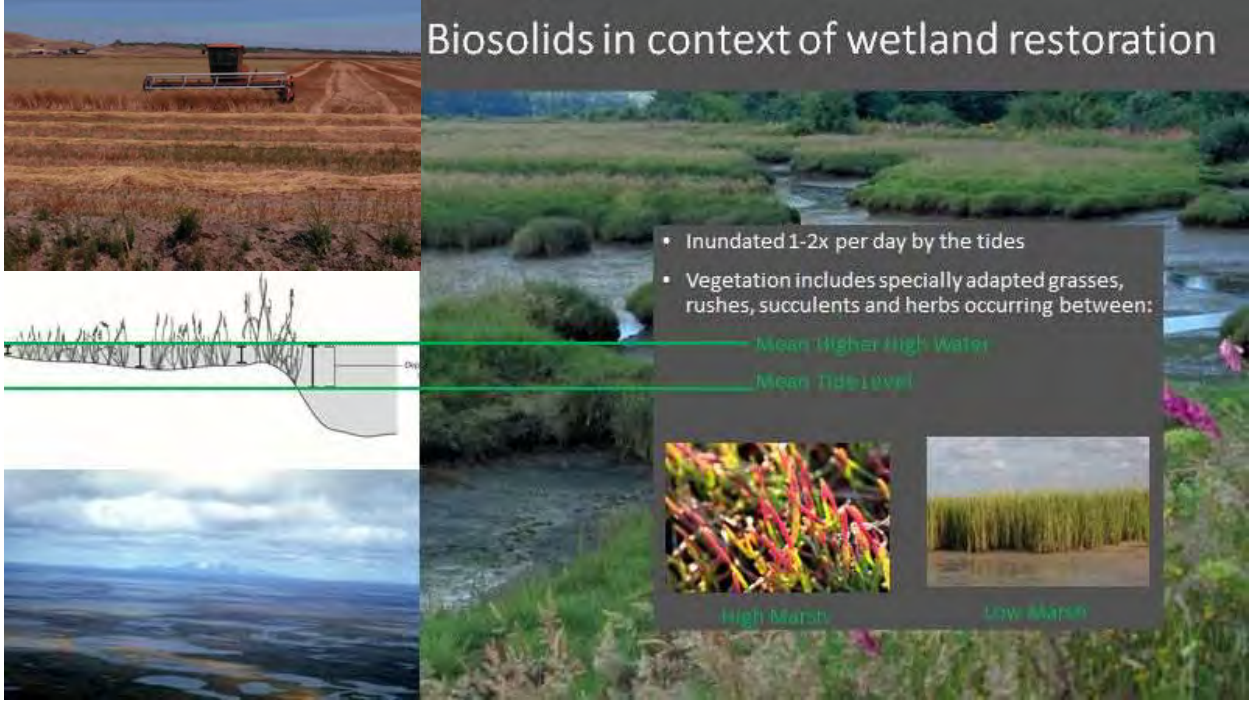
Governor's EO N-82-20: Develop Natural and Working Lands Climate Smart Strategy to advance State's carbon neutrality goal.

Biosolids land application regulations and practices

- 40 Code of Federal Regulations Part 503
  - Risk-based and technical requirements for biosolids that are land applied, surface disposed, and incinerated
  - Pollutant limits, management practices (including pathogen and vector attraction reduction), and requirements for monitoring and reporting
  - Defines classes of biosolids based on pathogen destruction
- SWRCB General Order - incorporates requirements of the Part 503 rule as minimum standards
- BCDC - deferred to for biosolids management when in its jurisdiction

Biosolids land application regulations and practices

- EPA Biennial Reviews to:
  - Ensure chemical and pathogen standards are supported by current scientific data and risk-assessment methods
  - Demonstrate effective enforcement of the Part 503 rule
  - Validate the effectiveness of biosolids-management practices
- Researching emerging pollutants in collaboration with SWRCB
  - Per- and polyfluoroalkyl substances (PFAS)
  - Microplastics


Biosolids in context of wetland restoration
• Inundated 1-2x per day by the tides
• Vegetation includes specially adapted grasses, rushes, succulents and herbs occurring between:
Mean Higher High Water
Mean Tide Level
High Marsh
Low Marsh


SEAFOOD MARKET
SEA SCALLOPS
WITH BUTTER GARLIC SAUCE

Regulations and agencies with oversight for wetland restoration

Clean Water Act

- Section 401, SFBRWQCB
- Section 404, USACE (incorporates biological opinions)
- EPA

McAteer-Petris Act

- Bay Conservation and Development Commission

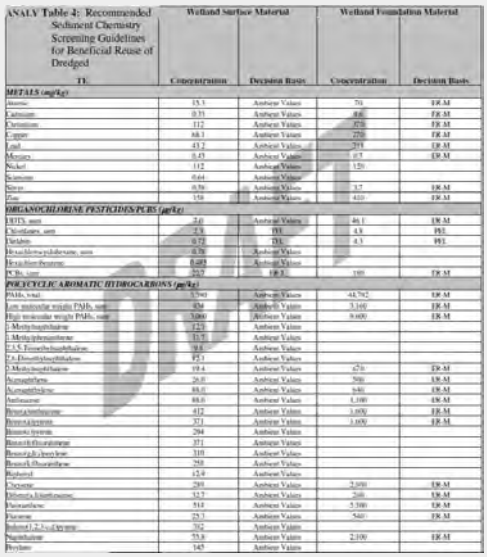
Endangered Species Act

- National Marine Fisheries Service; & Magnuson-Stevens
- US Fish and Wildlife Service

Dredge Material Management Office

- Joint program of BCDC, SFBRWQCB, SLC, ACOE, EPA, with input and advising from NMFS, USFWS, CDFW

RWQCB 2000 Guidelines



ANALY Table 4: Recommended Sediment Chemistry Screening Guidelines for Beneficial Reuse of Dredged TI.	Wetland Surface Material		Wetland Foundation Material	
	Concentration	Decision Basis	Concentration	Decision Basis
METALS (mg/kg)				
Arsenic	33.1	Ambient Values	70	ER-M
Cadmium	0.33	Ambient Values	4.6	ER-M
Chromium	112	Ambient Values	370	ER-M
Copper	68.1	Ambient Values	270	ER-M
Lead	43.2	Ambient Values	218	ER-M
Mercury	0.43	Ambient Values	0.7	ER-M
Nickel	112	Ambient Values	120	
Selenium	0.61	Ambient Values		
Silver	0.50	Ambient Values	3.7	ER-M
Zinc	150	Ambient Values	410	ER-M
ORGANOCHLORINE PESTICIDES/PCBS (µg/kg)				
DDTS, sum	2.0	Ambient Values	46.1	ER-M
Chlordanes, sum	2.3	TEL	4.8	PEL
Dieldrin	0.72	TEL	4.3	PEL
Hexachlorocyclohexane, sum	0.78	Ambient Values		
Hexachlorobenzene	0.693	Ambient Values		
PCBs, sum	20.7	ER-L	180	ER-M
POLYCYCLIC AROMATIC HYDROCARBONS (µg/kg)				
PAHs, total	3,390	Ambient Values	44,792	ER-M
Low molecular weight PAHs, sum	434	Ambient Values	3,160	ER-M
High molecular weight PAHs, sum	3,000	Ambient Values	9,600	ER-M
1-Methylnaphthalene	12.7	Ambient Values		
2-Methylnaphthalene	11.7	Ambient Values		
2,3,5-Trimethylnaphthalene	8.6	Ambient Values		
2,6-Dimethylnaphthalene	17.1	Ambient Values		
2-Methylnaphthalene	19.4	Ambient Values	670	ER-M
Acenaphthene	26.0	Ambient Values	500	ER-M
Acenaphthylene	44.0	Ambient Values	640	ER-M
Anthracene	46.0	Ambient Values	1,100	ER-M
Benz(a)anthracene	412	Ambient Values	1,600	ER-M
Benzo(a)pyrene	371	Ambient Values	1,600	ER-M
Benzo(b)fluoranthene	294	Ambient Values		
Benzo(e)pyrene	371	Ambient Values		
Benzo(g,h,i)perylene	319	Ambient Values		
Benzo(k)fluoranthene	258	Ambient Values		
Biphenyl	124	Ambient Values		
Chrysene	288	Ambient Values	2,800	ER-M
Dibenz(a,h)anthracene	32.7	Ambient Values	260	ER-M
Fluoranthene	510	Ambient Values	5,300	ER-M
Fluorene	23.3	Ambient Values	540	ER-M
Indeno(1,2,3-cd)pyrene	302	Ambient Values		
Naphthalene	75.8	Ambient Values	2,100	ER-M
Perylene	145	Ambient Values		

- Modified based on site-specific context
- New information
- New risks or potential risks

Sediment Testing Criteria

- Water Board does not currently have Sediment ESL's
- Restoration Project QAPP's offer some ideas
- Based on site-specific risk assessment
- Project specific requirements
    - Dioxins, DDT
- Could include PFAS, Microplastics

METALS	WETLAND RESTORATION CONCENTRATION CRITERIA		AVERAGE SOIL CONCENTRATION AT BIOSOLIDS LAND APPLICATION SITES (mg/kg)	AVERAGE BIOSOLIDS CONCENTRATION (mg/kg)	COMPARISON OF SOIL CONCENTRATION TO WETLAND CRITERIA
	Surface Material (mg/kg, dry)	Foundation Material (mg/kg, dry)			
Arsenic	15.3	70	6	5.1	Suitable
Cadmium	1.2	9.6	0.1	1.7	Suitable
Chromium	112	370	83	23	Suitable
Copper	68.1	270	34	299	Suitable
Lead	46.7	218	12	13	Suitable
Mercury	0.4	0.7	0.1	1.0	Suitable
Nickel	112	120	54	17	Suitable
Selenium	1.6	1.6	1.6	10.0	Suitable*
Silver	1	3.7	No Data and Non-Detect	1.4	?
Zinc	158	410	82	702	Suitable
Organochlorine Pesticides/PCBs (µg/kg, dry weight)	6 Constituents, Set by Constituent	6 Constituents, Set by Constituent		PCB Standard[1] Other Constituents Monitored[2], Standard not Triggered[3]	Method detection limit insufficient to detect at WC limits: 6 constituents
Polycyclic Aromatic Hydrocarbons (µg/kg, dry weight)	3390	44792		Monitored[2], Standard not Triggered[3]	1 constituent, method detection limit ?
Total Petroleum Hydrocarbons (mg/kg, dry weight)	2 groups of constituents, Set by Constituent Groups	2 groups of constituents, Set by Constituent Groups		Monitored[2], Standard not Triggered[3]	2 groups of constituents, method detection limit ?
Volatile Organic Compounds (µg/kg, dry weight)	43 Constituents, Set by Constituent	No Current Constituent Standard		Monitored[2], Standard not Triggered[3]	16 constituents have method detection limits suitable for wetland criteria; 27 constituents have either insufficient method detection limits for wetland criteria or more information is needed on method detection limits

Metals

Metals (mg/kg, dry)	WETLAND RESTORATION CONCENTRATION LIMITS		BIOSOLIDS CONCENTRATION LIMITS*				VFWD		SANTA ROSA		NAPA SAN		Method Detection Limit (Range) mg/kg
	Wetland Surface Material	Wetland Foundation Material	Ceiling Concentration Limit (mg/kg, dry) Applies to land applied biosolids	Cumulative Pollutant Loading Rate (kg/ha) Applies to bulk biosolids	"High Quality" Pollutant Concentration Limits Applies to bulk and bagged biosolids	Annual pollutant loading rate (kg/ha per 365-day period) Applies to bagged biosolids	Average Biosolids Concentration before Land Application (mg/kg)	Average Soil Concentration (mg/kg)	Average Biosolids Concentration before Land Application (mg/kg)	Average Soil Concentration (mg/kg)	Average Biosolids Concentration before Land Application (kg/mg)	Average Soil Concentration kg/mg)	
Arsenic	15.3	70	75	41	41	2.0	2.28	7.545	8.73	11	4.3	0	0.65
Cadmium	1.2	9.6	85	39	39	1.9	0.61	ND	3.48	Non-Detect	0.96	0.1	0.17
Chromium	112	370	-	-	-	-	10.3	82.6	24.5	No Data	32.7	83.2	0.09
Copper	68.1	270	4300	1500	1500	75	139	40.45	272.5	39	484	21.4	0.22
Lead	46.7	218	840	300	300	15	15.6	13.1	11	13.8	12.7	9.5	0.91
Mercury	0.4	0.7	57	17	17	0.85	0.325	0.097	0.73	0.128	1.83	0.05	
Molybdenum	-	-	75	-	-	-	1.66	2.63	8.93	6	7.6	No Data	
Nickel	112	120	420	420	420	21	9.77	66.2	19.75	70.5	21.2	26.5	0.44
Selenium	1.6	1.6	100	100	36	5.0	4.56	2.315	18.75	Non-Detect	6.64	0.9	1.11
Silver	1	3.7	-	-	-	-	1.14	Non-Detect	No Data	No Data	1.68	No Data	0.35
Zinc	158	410	7500	2800	2800	140	482	92.7	700	100.7	925	51.8	

Organochlorine Pesticides/Polychlorinated Biphenyls; Polycyclic Aromatic Hydrocarbons; Total Petroleum Hydrocarbons

Organochlorine Pesticides/Polychlorinated Biphenyls (µg/kg, dry weight)	WETLAND RESTORATION CONCENTRATION LIMITS		VFWD		SANTA ROSA		NAPA SAN		Method Detection Limit (Range) µg/kg
	Wetland Surface Material	Wetland Foundation Material	Average Biosolids Concentration before Land Application	Average Soil Concentration	Average Biosolids Concentration before Land Application	Average Soil Concentration	Average Biosolids Concentration before Land Application	Average Soil Concentration	
Dichloro-diphenyl-trichloroethane, sum	7	46.1	Non-Detect	No Data	Non-Detect	No Data	No Data	No Data	7.5
Chlordanes, sum	2.3	48	No Data	No Data	Non-Detect	No Data	No Data	No Data	1300
Dieldrin	0.72	4.3	Non-Detect	No Data	Non-Detect	No Data	No Data	No Data	5.5
Hexachlorocyclohexane, sum	0.78	0.99	Non-Detect	No Data	Non-Detect	No Data	No Data	No Data	6-130
Hexachlorobenzene	0.49	6	Non-Detect	No Data	Non-Detect	No Data	Non-Detect	No Data	130
Polychlorinated biphenyls, sum	22.7	180	Non-Detect	No Data	Non-Detect	No Data	No Data	No Data	97-170
Polycyclic Aromatic Hydrocarbons (µg/kg, dry weight)									
Polycyclic Aromatic Hydrocarbons, total	3390	44792	Non-Detect	No Data	No Data	No Data	Non-Detect	No Data	
Total Petroleum Hydrocarbons (mg/kg, dry weight)									
Total Petroleum Hydrocarbons from Gasoline	100	400	No Data	No Data	No Data	No Data	Non-Detect	No Data	
Total Petroleum Hydrocarbons from Jet Fuel, Kerosene, Diesel Fuel, or Motor Oil	200	500	No Data	No Data	No Data	No Data	Non-Detect	No Data	

VOC's 1 of 2

Volatile Organic Compounds (µg/kg, dry weight)	WETLAND RESTORATION CONCENTRATION LIMITS		VFWD		SANTA ROSA				NAPA SAN		Method Detection Limit (Range) µg/kg
	Wetland Surface Material	Wetland Foundation Material	Average Biosolids Concentration before Land Application	Average Soil Concentration	Average Biosolids Concentration before Land Application	Average Soil Concentration	Average Total Load to Soil from Biosolids to	Average Percent of Total Load to Soil from	Average Biosolids Concentration before Land Application	Average Soil Concentration	
Acetone	8.6	-	No Data	No Data	No Data	No Data			No Data	No Data	
Benzene	27	-	Non-Detect	No Data	Non-Detect	No Data			Non-Detect	No Data	48-275
Bromodichloromethane	605	-	Non-Detect	No Data	Non-Detect	No Data			Non-Detect	No Data	86-325
Bromoform (Tribromomethane)	1210	-	Non-Detect	No Data	Non-Detect	No Data			Non-Detect	No Data	0.325-290
Bromomethane	14	-	Non-Detect	No Data	Non-Detect	No Data			Non-Detect	No Data	0.725-3500
Carbon tetrachloride	17	-	Non-Detect	No Data	Non-Detect	No Data			Non-Detect	No Data	0.55-100
Chlorobenzene	55	-	Non-Detect	No Data	Non-Detect	No Data			Non-Detect	No Data	0.25-83
Chloroethane	2.4	-	Non-Detect	No Data	Non-Detect	No Data			Non-Detect	No Data	0.65-550
Chloroform	247	-	Non-Detect	No Data	Non-Detect	No Data			Non-Detect	No Data	0.225-88
Chloromethane	385	-	Non-Detect	No Data	Non-Detect	No Data			Non-Detect	No Data	0.675-110
Dibromochloromethane	5148	-	Non-Detect	No Data	Non-Detect	No Data			Non-Detect	No Data	0.275-210
1,2-dibromo-3-chloropropane	0.26	-	Non-Detect	No Data	No Data	No Data			Non-Detect	No Data	640
1,2-Dibromoethane	393	-	Non-Detect	No Data	No Data	No Data			Non-Detect	No Data	94
1,2-Dichlorobenzene	86	-	Non-Detect	No Data	No Data	No Data			Non-Detect	No Data	85
1,3-Dichlorobenzene	398	-	Non-Detect	No Data	No Data	No Data			Non-Detect	No Data	65
1,4-Dichlorobenzene	93	-	Non-Detect	No Data	No Data	No Data			Non-Detect	No Data	82
1,1-Dichloroethane	15	-	Non-Detect	No Data	No Data	No Data			Non-Detect	No Data	78
1,2-Dichloroethane	348	-	Non-Detect	No Data	No Data	No Data			Non-Detect	No Data	120
1,1-Dichloroethene	15	-	Non-Detect	No Data	No Data	No Data			Non-Detect	No Data	130
cis-1,2-Dichloroethene	209	-	Non-Detect	No Data	Non-Detect	No Data			Non-Detect	No Data	0.325-250
trans-1,2-Dichloroethene	310	-	Non-Detect	No Data	Non-Detect	No Data			Non-Detect	No Data	0.475-190

VOC's 2 of 2

Volatile Organic Compounds (µg/kg, dry weight)	WETLAND RESTORATION CONCENTRATION LIMITS		VFWD		SANTA ROSA				NAPA SAN		Method Detection Limit (Range) µg/kg
	Wetland Surface Material	Wetland Foundation Material	Average Biosolids Concentration before Land Application	Average Soil Concentration	Average Biosolids Concentration before Land Application	Average Soil Concentration	Average Total Load to Soil from Biosolids to	Average Percent of Total Load to Soil from	Average Biosolids Concentration before Land Application	Average Soil Concentration	
1,2-Dichloropropane	664	-	Non-Detect	No Data	No Data	No Data			Non-Detect	No Data	160
1,3-Dichloropropane	11	-	Non-Detect	No Data	No Data	No Data			Non-Detect	No Data	93
1,4-Dioxane	11725	-	No Data	No Data	No Data	No Data			No Data	No Data	
Ethylbenzene	156	-	Non-Detect	No Data	Non-Detect	No Data			Non-Detect	No Data	0.275-56
Hexachlorobutadiene	270	-	Non-Detect	No Data	Non-Detect	No Data			Non-Detect	No Data	120-315
Hexachloroethane	2400	-	Non-Detect	No Data	Non-Detect	No Data			Non-Detect	No Data	1500 (wet), 7400 (dry)
Methylene chloride	244	-	Non-Detect	No Data	Non-Detect	No Data			Non-Detect	No Data	0.275-490
Methyl ethyl ketone	630	-	No Data	No Data	No Data	No Data			No Data	No Data	
Methyl isobutyl ketone	228	-	No Data	No Data	No Data	No Data			No Data	No Data	
Methyl tert-butyl ether	480	-	Non-Detect	No Data	Non-Detect	No Data			Non-Detect	No Data	0.15-110
Naphthalene	286	-	Non-Detect	No Data	960	No Data			Non-Detect	No Data	65-300
tert-Butyl alcohol	6660	-	No Data	No Data	No Data	No Data			No Data	No Data	
1,1,1,2-Tetrachloroethane	873	-	Non-Detect	No Data	No Data	No Data			Non-Detect	No Data	89
1,1,2,2-Tetrachloroethane	225	-	Non-Detect	No Data	No Data	No Data			Non-Detect	No Data	130
Tetrachloroethene	186	-	Non-Detect	No Data	No Data	No Data			Non-Detect	No Data	78
Toluene	237	-	730 (dry), 460 (wet)	No Data	13.7	No Data			87	No Data	0.25-190
1,2,4-Trichlorobenzene	445	-	Non-Detect	No Data	No Data	No Data			Non-Detect	No Data	880
1,1,1-Trichloroethane	68	-	Non-Detect	No Data	No Data	No Data			Non-Detect	No Data	83
1,1,2-Trichloroethane	471	-	Non-Detect	No Data	No Data	No Data			Non-Detect	No Data	130
Trichloroethene	598	-	Non-Detect	No Data	Non-Detect	No Data			Non-Detect	No Data	0.425-78
Vinyl chloride	145	-	Non-Detect	No Data	Non-Detect	No Data			Non-Detect	No Data	0.575-190
Xylenes	407	-	Non-Detect, 97	No Data	25.9	No Data			Non-Detect	No Data	0.6-210

PFAS environmental screening levels memo SFBWQCB, 2020

Groundwater ESLs (µg/L): Aquatic Habitat Ecotoxicity Levels

Chemical	Direct Exposure Ecotoxicity: Freshwater	Direct Exposure Ecotoxicity: Saltwater	Secondary Poisoning Ecotoxicity: Freshwater & Saltwater	Ecotoxicity ESL: Freshwater & Saltwater
PFOS	5.6E-01	2.6E+00	7.5E-02	7.5E-02
PFOA	5.4E+02	5.4E+02	4.4E+00	4.4E+00

Groundwater ESLs (µg/L): Aquatic Habitat Seafood Ingestion Levels (µg/L)

Chemical	Cancer Risk	Noncancer Hazard	Seafood Ingestion ESL: Freshwater & Saltwater
PFOS	4.7E-06	3.8E-04	4.7E-06
PFOA	2.2E-05	1.4E-03	2.2E-05

State Water Board Investigative Orders to POTWs receiving PFAS

Region 2 Study involves two phases (2020-2021), sampling:

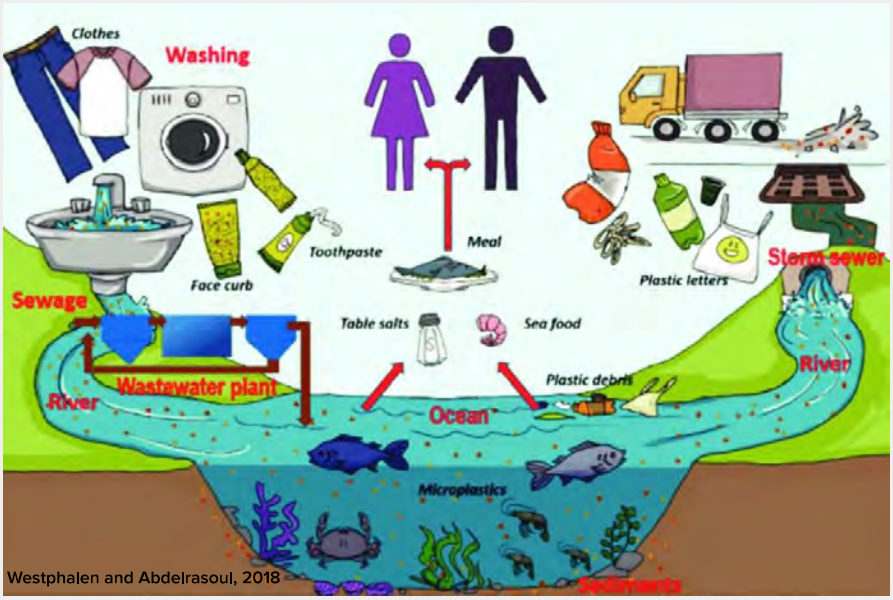
- Influent, effluent, biosolids at 15 POTWs
- 1-170 million gallons per day receiving 0-100% residential flow
- Different processes along the treatment train
- 40 target PFAS analytes plus Total Oxidizable Precursors (TOP) assay

CALIFORNIA WATER BOARDS San Francisco Bay - R2

SFEI AQUATIC SCIENCE CENTER
SAN FRANCISCO ESTUARY INSTITUTE & THE AQUATIC SCIENCE CENTER

BACWA BAY AREA CLEAN WATER AGENCIES

Microplastics



Westphalen and Abdelrasoul, 2018

Microplastics

Senate Bill 1263 mandates a Statewide Microplastics Strategy to protect coastal waters

2019 testing for microplastics in effluent discharge from eight POTWs; appears to contribute an appreciable but much lower microplastics load than urban stormwater runoff

Identified further research needs… a partnership formed to address those needs:

OCEAN PROTECTION COUNCIL

SOUTHERN CALIFORNIA COASTAL WATER RESEARCH PROJECT
Applying next-generation science to aquatic ecosystems management

SFEI AQUATIC SCIENCE CENTER

CASA

Microplastics: POTWs are participating in the development of a Risk Assessment Framework

June 2020 – SWB Adopts Definition of 'Microplastic'

June 2020 - OPC 2-yr POTW Study

May 2021 – OPC Risk Assessment Framework Report and Recommendations

Fall 2021 – SWB Adopts Drinking Water Method

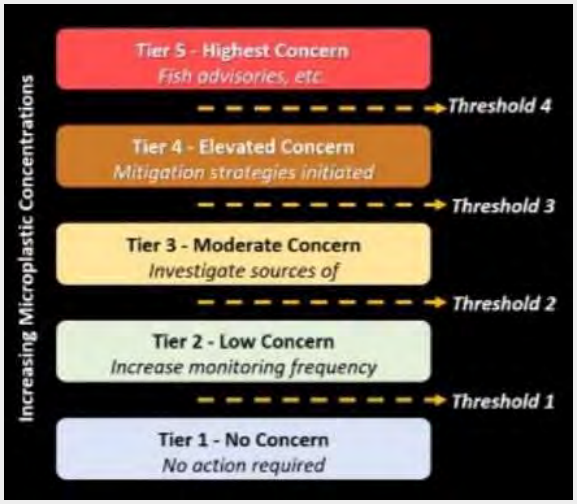
Sept 8 – SCCWRP Microplastics Health Effects Webinar

Fall 2021 – POTW Sampling Phase 1

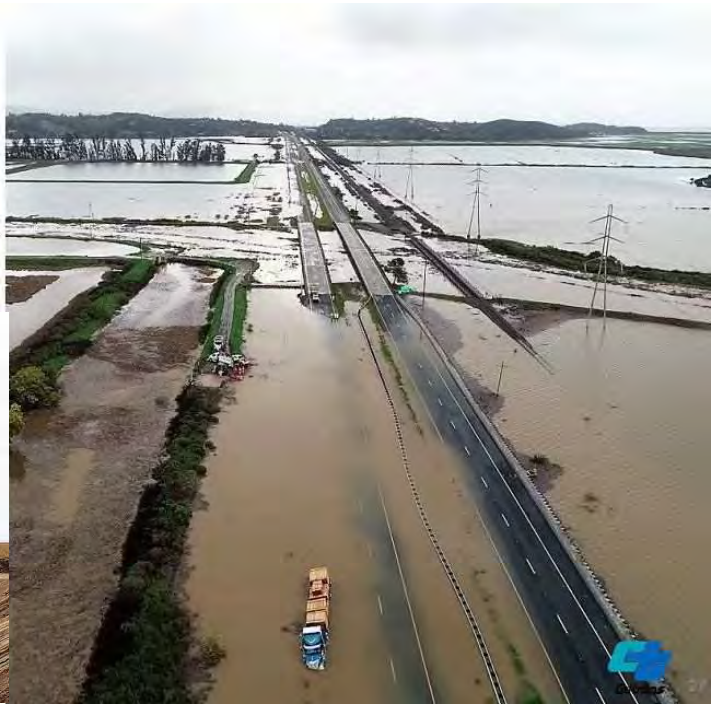
Dec 2021 – OPC Microplastics Statewide Strategy

Spring 2022 – POTW Sampling Phase 2

Dec 2022 – Report



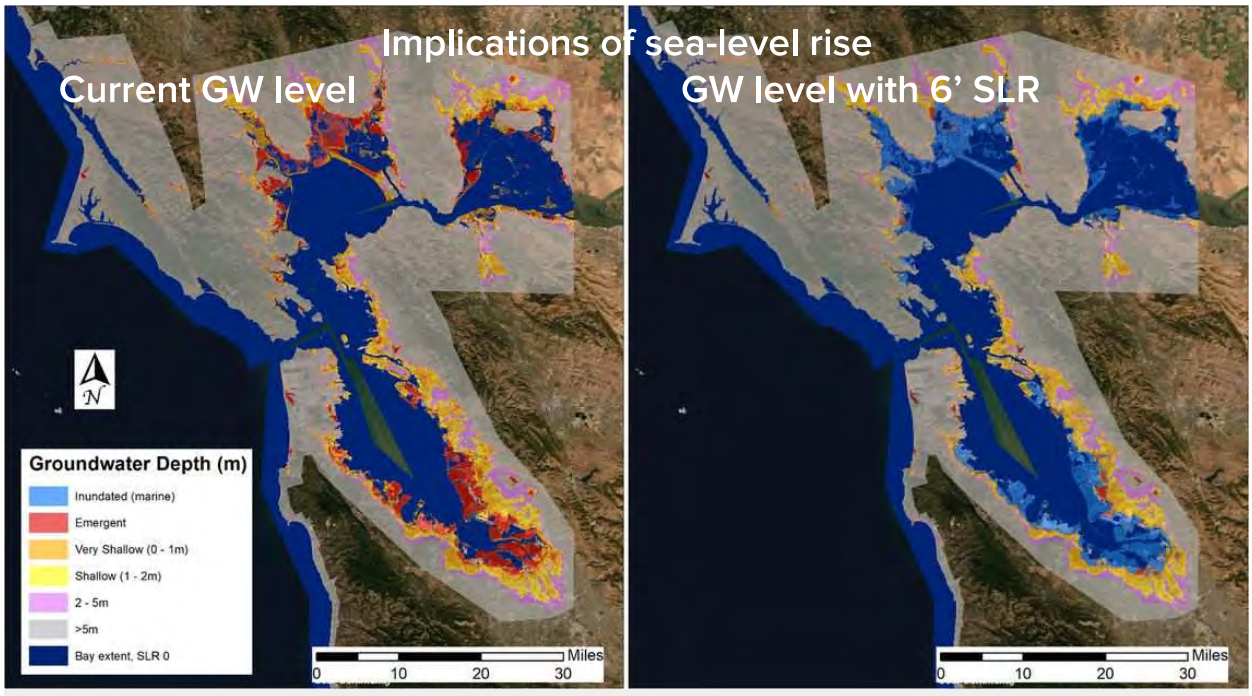
Implications of restorating tidal action



Surface and groundwater quality

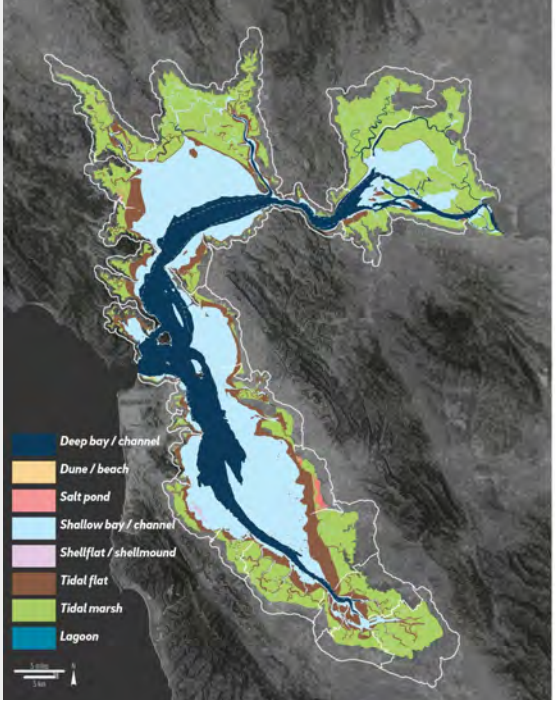
BMP's include specified setbacks from or buffers to surface waters, including wetlands

Did not envision placement in pumped diked baylands where groundwater is seasonally at or near the surface, groundwater levels will increase as sea level rises

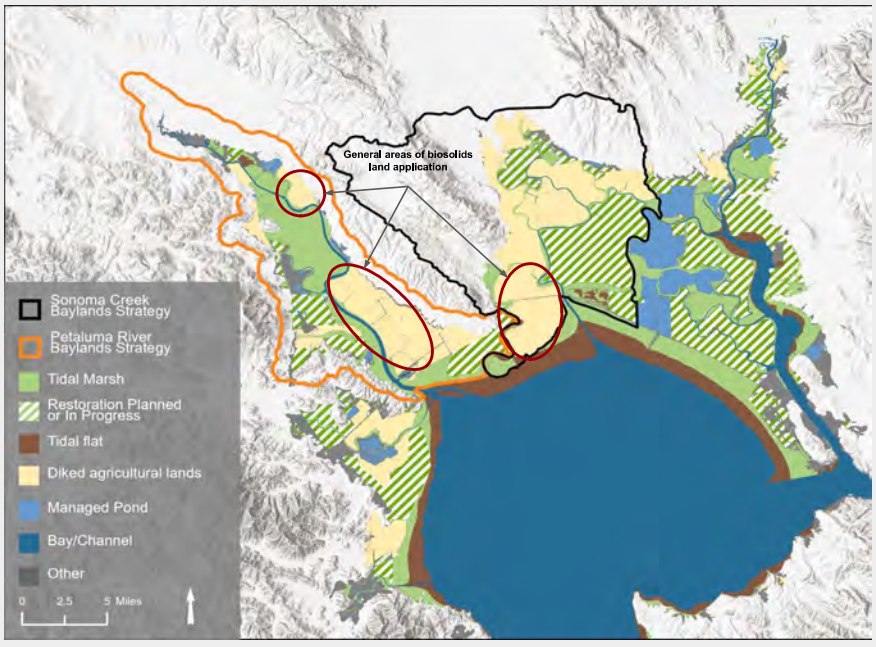


Interactions with restoration goals

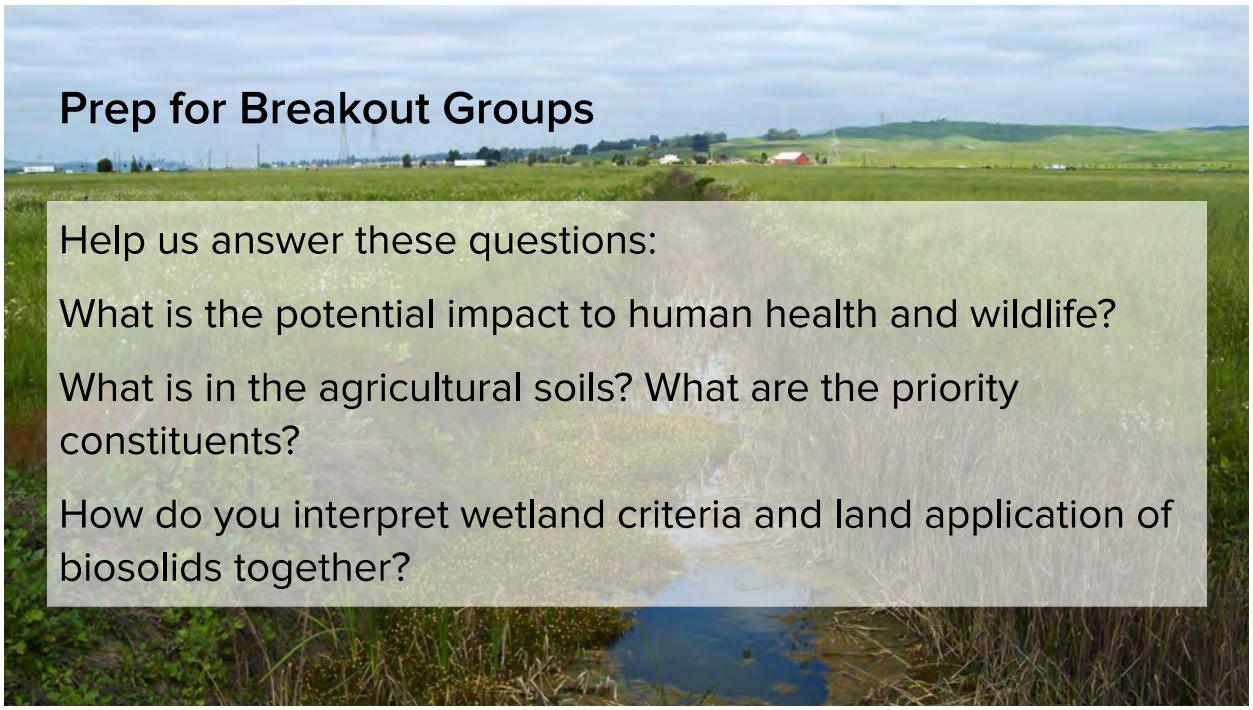
- Restore historic baylands everywhere possible in collaboration with willing landowners or sellers
- Include upland transition zone
- Include adjacent uplands
- Plan for resilient future that accounts for sea level rise



Interactions with restoration goals



Q&A


Prep for Breakout Groups
Help us answer these questions:
What is the potential impact to human health and wildlife?
What is in the agricultural soils? What are the priority constituents?
How do you interpret wetland criteria and land application of biosolids together?

BREAK

Breakout

Knowledge gaps:

A. What is the potential impact to human health and wildlife?
B. What is in the agricultural soils? What accumulates in soil over the long term? What are the priority constituents?
C. How do you interpret wetland criteria and land application of biosolids together?

Some guiding questions:

- Are these the right gaps? Are there more?
- Are we considering the regulations that need to be addressed?
- Who should address the gaps?
- Who makes the decisions?
- Who else needs to be in the discussion? (e.g., landowners)

BREAK

Group Discussion

1. Is biosolids land application compatible with future wetland restoration relative to the biosolids constituents impact on human health and wildlife?
2. Could land application benefit the restoration process?

Some guiding questions:

- Can we make land application and habitat restoration compatible?
- What research is needed?
- How do we address potential wetland wildlife impacts?
- How do we address the impacts of inundation and erosion?
- Does anything need changing - regulations, pretreatment, location, monitoring?
- How can biosolids management be included in regional landscape planning?
- How do we engage with other key stakeholders e.g., landowners?
- What are the next steps?

San Francisco Bay Regional Water Quality Control Board

September 2, 2021

To: Attached Mailing List

NOTICE: Change of Board Hearing Date - Tentative Order Amending Waste Discharge Requirements to Update Total Residual Chlorine and Oil and Grease Requirements for Municipal Wastewater Dischargers

We are changing the hearing date for the Regional Water Board to consider amending NPDES permits for the facilities in the attached mailing list. The meeting was originally scheduled for October 13, 2021. It will now take place on **October 12, 2021**. Please note that the meeting will start at 9:00 a.m.

If you have any questions regarding this letter, please contact Robert Schlipf at robert.schlipf@waterboards.ca.gov.

Sincerely,

Bill Johnson
Chief, NPDES Wastewater Division

Attachment:

Mailing List

Copy (sent by email):

Lyris notification to NPDES Wastewater Permits list
Julie Song, U.S. EPA, Region 9, song.julie@epa.gov

Nutrient Surcharge; CBC reserve at $1,000,000

		2nd watershed permit calcs							
BACWA Agency	**Subembayment**	**2017/18**	**2018/19**	**2019/20**	**Average of Oct 2017 - Sept 2020 (3 Years)**	**% (based on TIN) FY21**	**% (based on TIN) FY22**	**FY 21 Nutrient Surcharge**	**FY 22 Nutrient Surcharge***
Basis for Allocation								**TIN (Oct 2016-Sept 2019)**	**TIN (Oct 2017-Sept 2020)**
Amount Needed Science Funding								**$1,700,000**	**$1,700,000**
CCCSD	Suisun Bay	3,840	3,790	3,980	3870	7.20%	7.43%	$122,471	$126,349
EBDA	South Bay	8,700	8,570	8,950	8740	15.85%	16.79%	$269,479	$285,346
EBMUD	Central Bay	10,700	9,340	9,320	9787	18.55%	18.80%	$315,393	$319,518
San Jose	Lower South Bay	4,920	5,500	4,880	5100	10.04%	9.79%	$170,702	$166,506
SFPUC Southeast	South Bay	8,860	8,850	7,210	8307	17.35%	15.95%	$294,964	$271,199
American Canyon	San Pablo Bay	36.8	37.3	33.1	36	0.07%	0.07%	$1,216	$1,167
Benicia	San Pablo Bay	251	222	211	228	0.44%	0.44%	$7,540	$7,444
Burlingame	South Bay	359	466	460	428	0.74%	0.82%	$12,542	$13,984
CMSA	Central Bay	986	1,120	1,170	1092	2.04%	2.10%	$34,604	$35,652
Crockett (Port Costa)	San Pablo Bay	1.99	0.705	1.45	1	0.00%	0.00%	$50	$45
Delta Diablo	Suisun Bay	1,520	1,500	1,330	1450	2.77%	2.78%	$47,072	$47,340
FSSD	Suisun Bay	1,320	1,130	1,040	1163	2.09%	2.23%	$35,446	$37,981
Las Gallinas[(b)]	San Pablo Bay	135	153	160	149	0.26%	0.29%	$4,486	$4,875
MSD 5 (Tiburon & Paradise Cove)	Central Bay	57.61	51.5	35.59	48	0.10%	0.09%	$1,648	$1,575
Millbrae	South Bay	261	286	288	278	0.52%	0.53%	$8,856	$9,087
Mt. View	Suisun Bay	125	115	112	117	0.26%	0.23%	$4,497	$3,831
Napa SD	San Pablo Bay	161	309	152	207	0.45%	0.40%	$7,677	$6,769
Novato SD	San Pablo Bay	130	198	112	147	0.33%	0.28%	$5,529	$4,788
Palo Alto	Lower South Bay	2,180	2,310	2,220	2237	4.37%	4.30%	$74,241	$73,023
Petaluma	San Pablo Bay	4.87	24.2	6.68	12	0.03%	0.02%	$478	$389
Pinole	San Pablo Bay	317	227	232	259	0.54%	0.50%	$9,098	$8,445
Rodeo SD	San Pablo Bay	32.6	38.3	38.7	37	0.07%	0.07%	$1,225	$1,193
SFO Airport	South Bay	139	107	25.2	90	0.29%	0.17%	$4,970	$2,951
San Mateo	South Bay	1,430	1,530	1,330	1430	2.67%	2.75%	$45,387	$46,687
Sausalito-Marin City SD	Central Bay	137	134	124	132	0.25%	0.25%	$4,286	$4,299
Sewerage Agency of SM	Central Bay	187	211	219	206	0.35%	0.39%	$5,918	$6,715
Sonoma Co Water Ag	San Pablo Bay	0	29.9	0	10	0.07%	0.02%	$1,178	$325
SVCW	South Bay	2,690	2,640	2,590	2640	4.83%	5.07%	$82,034	$86,192
South SF	South Bay	1,060	1,310	1,160	1177	2.13%	2.26%	$36,225	$38,416
Sunnyvale	Lower South Bay	878	964	810	884	1.73%	1.70%	$29,423	$28,861
Treasure Island	Central Bay	12	13.9	20.9	16	0.03%	0.03%	$444	$509
Vallejo Sanitation & FCD	San Pablo Bay	931	928	851	903	1.71%	1.73%	$29,117	$29,492
West County Agency	Central Bay	873	997	799	890	1.87%	1.71%	$31,803	$29,046
		53236	**53103**	**49872**	**52070**				
Principals Only		**37020**	**36050**	**34340**	**35803**	69.00%	68.76%	$1,173,009	$1,168,918
Total w/o principals		**16216**	**17053**	**15532**	**16267**	31.00%	31.24%	$526,991	$531,082
Total				85				**$1,700,000**	**$1,700,000**

ITEM NO. 15 RESOLUTION TO CONTRIBUTE $1000 PER YEAR FOR FIVE YEARS TO THE CALIFORNIA ASSOCIATION OF SANITATION AGENCIES EDUCATION FOUNDATION TOWARD THE CREATION OF A BRUCE WOLFE MEMORIAL SCHOLARSHIP

Recommendation
Approve the resolution dedicating funds to the creation of a Bruce Wolfe Memorial Scholarship.

Background
Bruce Wolfe worked at the San Francisco Bay Regional Water Quality Control Board from 1977 to 2018, serving most recently as its Executive Officer. As a permit engineer early in his career, Bruce was instrumental in the creation of EBDA. Bruce was an inspirational figure, and his leadership was foundational to the positive collaboration that has been fostered between regulators and regulated community for the health of the Bay. Bruce passed away in February 2020.

At the April 2021 Commission Meeting, the Commission expressed interest in honoring Bruce's legacy in some way and directed staff to reach out to Bruce's widow to understand what the family would find to be a meaningful tribute. At the May Commission Meeting, staff reported that Bruce's widow expressed an interest in supporting the advancement of women in science, technology, engineering, and math (STEM), as this had been a passion of Bruce's. The Commission supported the concept of a scholarship for a woman on a STEM and/or water/wastewater career path. Staff began discussions with the California Association of Sanitation Agencies (CASA) Education Foundation (CEF), which grants scholarships to students pursuing higher education in engineering, environmental science, public administration, or other related fields, who show an interest in serving the clean water community.

At the July 2021 Commission Meeting, the Commission took an informal vote and unanimously supported dedication of $1000 per year for five years to be provided to the CEF for the purpose of creating a Bruce Wolfe Memorial Scholarship. The intent of this item is to formalize that vote.

Discussion
Following the July Commission discussions, staff met with the CEF Board regarding the scholarship. As previously discussed, the CEF supports creation of a scholarship funded by EBDA and potential partners for a woman from EBDA's service area and integrating that scholarship into their offerings. Their request is that EBDA assist in outreach to ensure that sufficient applications are received from students that meet the criteria, and that a representative from EBDA (staff or Commission) serve on the application review panel. Because the other scholarships offered by the CEF are in the amount of $5000 each, the CEF Board requested that $5000 per year for five years be dedicated to the Bruce Wolfe Memorial Scholarship.

Staff then approached the Bay Area Clean Water Agencies (BACWA) Executive Board regarding participating in the creation of the Bruce Wolfe Memorial Scholarship through the CEF. While the BACWA Board has not yet taken formal action, there was consensus among the Board to dedicate $4000 per year for five years to the scholarship, which would be added to EBDA's $1000 per year. Given that BACWA represents the whole Bay Area, the criteria for the award would be that it be given to a student from the Bay Area, not specifically the EBDA service area as previously requested by the Commission. That said, EBDA and its member agencies could encourage applications from within our service area to increase the likelihood that the awardee be from within the area. The BACWA Board also expressed interest in potentially broadening the award criteria to include other groups that are underrepresented in the clean water profession. EBDA staff will work with BACWA, CEF, and Bruce's family to refine the criteria while maintaining the intention of honoring Bruce's memory.

EAST BAY DISCHARGERS COMMISSION
EAST BAY DISCHARGERS AUTHORITY
ALAMEDA COUNTY, CALIFORNIA

RESOLUTION NO. 21-08

INTRODUCED BY _____

RESOLUTION TO CONTRIBUTE $1000 PER YEAR FOR FIVE YEARS TO THE CALIFORNIA ASSOCIATION OF SANITATION AGENCIES EDUCATION FOUNDATION TOWARD THE CREATION OF A BRUCE WOLFE MEMORIAL SCHOLARSHIP

WHEREAS, Bruce Wolfe began working at the San Francisco Bay Regional Water Quality Control Board (RWQCB) in 1977 and worked there until his retirement in 2019; and

WHEREAS, as a RWQCB permit engineer for East Bay Dischargers Authority (EBDA) and its Member Agencies, Mr. Wolfe was instrumental in the creation of EBDA; and

WHEREAS, as Executive Officer of the RWQCB, Mr. Wolfe exhibited unparalleled leadership in working collaboratively to further stewardship of San Francisco Bay, including through the Regional Monitoring Program and the Nutrient Management Strategy; and

WHEREAS, the EBDA Commission wishes to honor the life and legacy of Mr. Wolfe; and

WHEREAS, Mr. Wolfe was dedicated to fostering the advancement of women and other underrepresented groups in science, engineering, and other clean water career paths; and

WHEREAS, the California Association of Sanitation Agencies Education Foundation (CEF) is a 501(c)3 organization that helps ensure clean water for Californians by awarding scholarships to promising students on a path to serving the environmental community; and

WHEREAS, CEF has agreed to create a Bruce Wolfe Memorial Scholarship for a student meeting criteria developed by EBDA and other contributors.

NOW, THEREFORE, BE IT RESOLVED, the Commission of the East Bay Dischargers Authority hereby pledges to contribute $1000 per year for fiscal years 2022/2023 through 2026/2027 to the California Association of Sanitation Agencies Education Foundation toward creation of a scholarship in memory of Bruce Wolf.

SAN LORENZO, CALIFORNIA, SEPTEMBER 23, 2021, ADOPTED BY THE FOLLOWING VOTE:

AYES:
NOES:
ABSENT:
ABSTAIN:

_____ ATTEST: _____

CHAIR
EAST BAY DISCHARGERS COMMISSION

GENERAL MANAGER
EAST BAY DISCHARGERS AUTHORITY
EX OFFICIO SECRETARY

Lorien Fono

From: Kara Elizabeth Baker <Kara.Baker@stanford.edu>
Sent: Monday, August 23, 2021 5:05 PM
To: Lorien Fono; Richard G. Luthy
Cc: Sasha Harris-Lovett
Subject: Re: BAOWN activities and support

Hi Lorien,

ReNUWIt is now in a no-cost extension year, using the final funds from NSF that had been delayed in their use during Year 10 due to COVID. We will not be collecting IAB membership dues this year and consider membership from Year 10 to carry you through until July 2022 when NSF funding of the Center is formally over. ReNUWIt has plans to continue certain activities beyond NSF support, but we do not plan to collect membership dues. And you are correct that the Bay Area One Water Network is in a sense a spinoff continuation that we plan to actively maintain in collaboration with the Berkeley Water Center beyond NSF's funding of ReNUWIt.

Please let me know if you would like to discuss further.

Warm regards,
Kara

--

Kara Baker (she/her/hers)
Research & Industrial Liaison Officer – NSF ERC for ReNUWIt
Stanford University
Y2E2 Bldg, Room 119
473 Via Ortega
Stanford, CA 94305-4020
Phone: 650.725.2172

Lorien Fono

From: Richard G. Luthy <luthy@stanford.edu>
Sent: Monday, August 16, 2021 11:48 AM
To: Lorien Fono
Cc: Richard G. Luthy; Sasha Harris-Lovett; Kara Elizabeth Baker
Subject: BAOWN activities and support
Attachments: Bay Area One Water Network - Project summary 2021 - 2022.pdf

Dear Lorien:

Please see the following letter about continuing discussions on a Bay Area One Water Network (BAOWN) for 2021-22. This builds on our successful gatherings and reports on stormwater to augment water supplies and advancing water reuse in the Bay Area.

In the past several months we have been planning future efforts and we hope with support from you and others that we may continue to achieve the promise of more robust solutions to our water supply challenges. Pending support from Bay Area One Water Network partners, the attachment describes plans for the coming year to host additional workshops and publish reports on two new topics:

1) the opportunities and limits of water conservation in our region, and
2) the possible role of desalination in the Bay Area's future water supply portfolio.

We ask that you join with others to sustain this effort financially with a $15k contribution. We received $25k from the EPA to help facilitate the workshops for 2021-22.

The overarching goal for the BAOWN is to advance sustainable water supplies for the Bay Area and produce reports to help make sound decisions and help align the region. This information can be used to demonstrate our regional efforts in support of grants and eliminate the chance for duplication and disconnected efforts. The BAOWN supports diversification of local water supplies, technology sharing, and accelerating our efforts towards a regional strategy for Bay Area sustainable water supplies that is supported by everyone.

We hope BACWA can support this effort with a $15k contribution. Please feel free to contact me or Sasha Harris-Lovett (sharrislovett@berkeley.edu) about the BAOWN, or Kara Baker (Kara.Baker@stanford.edu) on submitting your contribution.

Thank you and best wishes, Dick Luthy

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Research Group

BAY AREA
ONE WATER
NETWORK

Project Summary 2021 - 2022

Previous Year Successes

In 2019, the Bay Area One Water Network held two in-person workshops: one focused on stormwater capture and use, and the other on water recycling. The participants were thought-leaders, decision-makers and knowledgeable experts from diverse stakeholder groups. The workshops were designed to identify regional challenges and opportunities, to synergize existing efforts, and to strengthen working relationships among the participants. We published two reports that documented the discussions and conclusions from each of the workshops: "Stormwater Capture to Augment Water Supplies in the San Francisco Bay Area: Challenges, Opportunities, and Next Steps" and "Advancing Water Reuse in the San Francisco Bay Area : Integrating Water Reuse into A Regional Approach to Water Management". In 2020 during the COVID-19 pandemic, we pivoted to an online format and held free, publicly accessible webinars reporting out on the 2019 workshops and reports to broaden their reach among practitioners. We also held an online webinar about next steps for the Bay Area One Water Network, which provided foundational information on potential workshop opportunities that would be particularly relevant in the Bay Area going forward.

Future Opportunities

We are currently collaborating with the San Francisco Estuary Partnership to plan a roundtable discussion and associated report on nature-based solutions for shoreline resilience, water quality improvement, and habitat enhancement in the Bay Area.

Pending support from Bay Area One Water Network partners, we also hope to host additional workshops and publish reports on two new topics: 1.) the opportunities and limits of water conservation in our region, and 2.) the possible role of desalination in the Bay Area's future water supply portfolio.

Opportunities and Limits of Conservation

Conservation is touted by many stakeholders as one of the keys to stretching water supplies in the San Francisco Bay Area. Great strides in conservation have been made over the past few decades, and there are more opportunities for enhancing water use efficiency and reducing waste indoors, outdoors, and in the distribution system. Drawing together participants from water and wastewater agencies, environmental advocacy groups, urban planners, landscape architects, and regulatory agencies, this workshop would examine questions including, "How low can we go?" "What are the most attractive remaining approaches for conserving more water?" "At what point do the tradeoffs associated with conservation outweigh the benefits of using less water?" "How will conservation affect existing and planned water reuse or other infrastructure projects?" "How can demand-side water management be financed to produce the most equitable outcomes?" "How can public support for conservation be leveraged to produce meaningful water savings?"

Possible Role of Desalination

Over the past several decades discussion of investments in desalination have met with resistance in the Bay Area. Some of these concerns stemmed from a time when desalination was substantially more

energy intensive and expensive than it is today. Now that costs have fallen and California's electricity grid is decarbonizing it may be time to revisit the potential role of desalination in the region's future water supply portfolio. Building on the Bay Area One Water Network's academic connections with the National Alliance for Water Innovation (NAWI), a multi-year research effort headquartered at Lawrence Berkeley National Laboratory, this workshop would initiate a discussion of the latest developments in desalination technologies and their potential costs and benefits in relation to the Bay Area's water system. This workshop would bring together water supply agencies, regulators, environmental scientists, technologists and environmental advocacy groups to hash out the ways in which desalination may be part of the Bay Area's water supply portfolio. It would delineate the opportunities, drivers, and challenges associated with desalination in the Bay Area, and outline key research questions and next steps.

About the Bay Area One Water Network

The Bay Area One Water Network supports efforts to ensure safe and resilient water systems in the San Francisco Bay Area. We share information, build collaborative capacity, and highlight opportunities for increasing the sustainability of water supplies in the region.

Climate change poses major challenges to the Bay Area's water supplies. Less snowpack, more erratic precipitation, and rising seas expose the vulnerabilities of our current water infrastructure systems. The Bay Area One Water Network helps innovate solutions to these challenges by bringing together diverse regional stakeholders from water supply and wastewater agencies, stormwater groups, regulatory agencies, city and regional planning groups, businesses, universities, research organizations and environmental advocacy groups. Through focused workshop discussions and synthesis reports, we aim to provide decision-makers with the contextual information, tools, and research roadmaps that can support the development of 21st century water infrastructure.

Partners

The Bay Area One Water Network has been supported by a broad coalition of water and wastewater agencies, municipalities, the Berkeley Water Center at UC Berkeley, the Environmental Protection Agency, and the Engineering Research Center for Re-inventing the Nation's Urban Water Infrastructure (ReNUWIt).

BACWA
BAY AREA
CLEAN WATER
AGENCIES

Arleen Navarret Leadership Award

Name: _____ *E-mail:* _____

Agency: _____ *Phone:* _____

What is it?

This award of $2,500 was created in honor of Arleen Navarret and her dedication to improving the health of the San Francisco Bay. Arleen spent nearly 30 years with the San Francisco Public Utilities Commission and provided leadership to BACWA and Tri-TAC boards and committees. Her combination of technical and regulatory expertise and interpersonal skills has been invaluable to BACWA. Her development of effective relationships with regulators and community-based non-profits has resulted in the development of more thoughtful and effective water quality regulations. This is a biennial award honoring emerging leaders in the wastewater community exhibiting characteristics possessed by former BACWA Chair, Arleen Navarret:

- Leadership in the workplace and wastewater community
- Commitment to environmental protection
- Mentorship of and compassion for others
- Technical expertise
- Ability to communicate effectively with a myriad of people
- Exemplary public service.

Who is eligible?

Only current employees of BACWA member agencies are eligible to receive this award.

How to apply

Applicants may nominate themselves, or be nominated by their colleagues. Applications must include:

1. Completed Nomination Form
2. Individual Narrative (in the following format)
    a. nominee name at the top of each page
    b. no more than 2 pages of double-spaced, 12 point font
    c. concise introductory paragraph describing who the individual is and why they are being nominated
    d. subsequent paragraphs that address
        i. specific work or activities of the nominee that meet the one or more of the following criteria for the award: leadership; environmental protection; mentorship; tech expertise; effective communication; public service
        ii. the specific opportunity to which the award could be applied and how it would benefit the awardee in their professional development related to one or more of the following: leadership; environmental protection; tech skills development
    e. concluding paragraph describing how this individual has or has the potential to positively impact and contribute to the wastewater community.

BACWA
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CLEAN WATER
AGENCIES

Arleen Navarret Leadership Award

Deadline and Selection

Applications are due December 1, 2021 and should be submitted by e-mail as an attachment to jdyment@bacwa.org. The winner will be selected by the Award Committee and the award will be presented to the recipient at the BACWA Annual meeting on February 10, 2020. (Funds may be used for travel, lodging and meals, but not any alcoholic beverages.)

Name: _____ *E-mail:* _____

Agency: _____ *Phone:* _____

DRAFT PROGRAM
BACWA ANNUAL TECHNICAL SEMINAR
SPECIAL EXECUTIVE BOARD MEETING
Thursday October 28 and Friday October 29, 2021

Day	Time	Theme	Topic	Desired Outcomes
Thur	9:00 AM	**Welcome and Introductions**		
	9:05 AM	**BACWA Operational**	**Financial**	
			FY 21 Budget	Understanding of budget status
			5 Year Plan	Input on future level of reserves given anticipated cash flow
			-Assumptions for Future Dues/CBC/Nutrient Surcharges	Agree on dues increases, review nutrient surcharge calculations
			Meeting Planning	
			Annual Meeting planning	Seek input on structure of Annual Meeting
	10:30 AM		**Break**	
	10:45 AM	**Regulatory topics**	AIR Update (Sarah Deslauriers, Carollo)	Rule development and engagement with BAAQMD
			Topics for Friday's discussion with Water Board - preview	
	12:00 PM		**LUNCH BREAK**	
	1:00 PM	**Strategic Plan Reviw**	Review and update of 2020 Strategic Plan	Review progress on objectives
				Update as strategies and objectives as necessary
	1:45 PM	**Nutrients**	**3rd Watershed Permit Negotiations**	
			Key Tenets document	discuss and update draft key tenets document
	4:00 PM		**Adjorn**	

Day	Time	Theme	Topic	Desired Outcomes
Water Board joins				
	9:00 AM	**NMS Update**	**Update and Discussion**	
			Discussion of Science needs to inform 3rd WSP	Discussion of Water Board's approach to address science gaps Discussion with Science manager of science timeline
	10:30 AM		**Break**	
	10:45 AM	**2nd Watershed Permit**	**Update and Discussion**	
			Status of NBS Study (Ian Wren, SFEI)	Understanding of status and resolution of identified issues

		Group Annual Report and Status of Recycled Water Report (Mike Falk, HDR)	•understanding of status and resolution of identified issues •What is feasible for recycled water in the Region?
12:00 PM		**Lunch Break**	
1:00 PM	**3rd Watershed Permit**	**Update and Discussion**	
		Discussion of proposed BACWA key tenets	Understanding of Water Board and BACWA positions on key issues
2:20 PM		**Break**	
2:30 PM	**Regulatory Issues**	**Update and Discussion**	
		CECs	Discuss AMR Update and permit amendment, ongoing CECs monitoring needs
		PFAS	Update on Special Study Phase 2
		Climate change planning	Update on Shoreline resilence
		Biosolids	Regional Strategy
3:30 PM		**Adjorn**	

BAPPG Committee
Report to BACWA Board

Meeting Date: August 18, 2021
Executive Board Meeting Date: September 17, 2021
BAPPG Chairs: Autumn Cleave, Robert Wilson

Committee Request for Board Action:

- none

Detailed Committee Notes are available online.

Regional Water Board Announcements

- Recruitment for a new BAPPG representative is underway, aiming for a Fall 2021 start date.
- The Dr. Teng-Chung Wu Pollution Prevention Award will be awarded in October.
- The August 2021 Executive Officer's report includes information about SSOs caused by wipes, as well as examples of public outreach via Twitter to reduce the problem.

Updates on Committee Activity and Announcements

- Steering Committee: 99% of budget was used in FY21. The fall advertising campaign by SGA will focus on FOG and "Toilets aren't trash cans." Gel Pack informational materials are now available on the Baywise website.
- BACWA Announcements: Members can voice their support for federal legislation on wipes labeling by customizing this template letter. Results of Phase 1 of the PFAS Regional Study are summarized in this Fact Sheet.
- OWOW: Negotiations on are ongoing to determine whether CASQA will adopt OWOW.
- CWEA. The P3S Conference will be held in Long Beach from Jan 31 – Feb 2, 2022.

Main Discussion Item - Annual Pollutant Prioritization for FY23

Diana Lin from SFEI provided a presentation on the Regional Monitoring Program's process for prioritizing constituents of emerging concern (CECs) for San Francisco Bay. There are currently no CECs of "high concern," but there are several CECs in the "moderate concern" category, including PFAS, Alkylphenols and Alkylphenol Ethoxylates, Fipronil, Imidacloprid, Bisphenols Organophosphate Esters and Microplastics. Dr. Lin provided details about the monitoring strategy in San Francisco Bay for each of these pollutants, as well as for oxybenzone (a sunscreen).

Stephen Groner from SGA provided background on public outreach. A good public outreach strategy targets pollutants that have both a high "pollutant impact" AND high "likeliness to change."

Member agency representatives shared highest-priority pollutants for their respective agencies, broke into small groups for discussion, and voted on final priorities. The final prioritized list is:

- PFAS. Focus will be on research (Phase 2 of PFAS Regional Study), developing informational materials, and exploring policy or regulatory action. A clear public message has not yet been developed.
- Pesticides – Focus will continue to be on flea and tick medication, including direct public outreach and outreach to veterinarians.
- **"Toilets aren't trash cans"** – This campaign focuses on wipes and other trash, including pharmaceuticals.
- FOG – Public outreach continues to be important due to the nexus with sewer overflows.

Next BAPPG General Meeting: October 6, 2021, by Zoom

Collection Systems Committee
Report to BACWA Board

Collection Systems Committee Meeting: 08/19/2021
Executive Board Meeting Date: 09/17/21
Committee Chair: Andrew Damron (Napa San)

Committee Request for Board Action: None

40 attendees, representing 29 member agencies.

Water Use Efficiency Survey

BACWA's Regulatory Program Manager requests that members participate in a State-sponsored survey regarding the effect of water conservation on collection systems. More information about the survey is available from CWEA. Members discussed the ongoing impacts of the drought, noting that trend towards using non-potable water to fill cleaning trucks or recycling methods such as Pipe & Plant's. Agencies that use non-potable water for this purpose must be attentive to filter cleaning to avoid wrecking pumps on the truck.

Presentation on Asbestos Cement Pipe-Bursting

Alan Ambler of AM Trenchless gave a presentation on pipe-bursting of Asbestos Cement (AC) pipe, focusing on a recent project completed for NapaSan. The presentation slides are available on the Collection Systems Committee website. Highlights from the presentation and Q&A included:

- Asbestos fibers represent a health risk via the inhalation exposure route. Exposure through drinking is also a risk, but the risk is significantly less than inhalation. Pipe-bursting activities are subject to regulation by the National Emissions Standards for Hazardous Air Pollutants (NESHAP).
- NapaSan installed approximately 600,000 feet of AC pipe in the mid-20 century. It is prone to root and groundwater infiltration at joints, and also subject to damage and cracking in areas that are cleaned frequently, potentially leading to collapse. NapaSan is replacing AC pipe using a combination of open cut, cured-in-place pipe (CIPP) lining, and pipe-bursting. Pipe-bursting is significantly less costly than open cut construction.
- AC pipe-bursting can be either pneumatic or static. Static pipe-bursting can be used to install pre-chlorinated pipelines in water distribution systems, but disinfection is not a concern for wastewater collection systems.
- A deed notation for the site is required after pipe-bursting work is complete, as AC pipe fragments remain in the ground. Notice is required prior to digging up the site in the future, but removal of the fragments is not required if the project site is less than 260 linear feet (most emergency repairs would fall below this threshold). NapaSan does not use pipe-bursting on private rights-of-way, or in areas where there may be other utility conflicts. However, Alan Ambler noted that this approach has been used on private property in other communities (e.g., HOA in Florida).
- NapaSan was able to receive approval for the project from the Bay Area Air Quality Management District, whose only established guidance is the 2006 Compliance Advisory, "Asbestos Control Requirements for Pipe Bursting and Pipe Reaming." During the project, no asbestos fibers above OSHA limits were released.
- NapaSan's pipe-bursting specs are available upon request.

SSS WDR Update

The committee discussed the status of the Draft Sanitary Sewer Order (SSO-WDR) released as an informal staff draft in February by the State Water Board. BACWA and CASA submitted a comment letter and redline markup to State Water Board staff in late June. In late July, State Water Board staff provided an update to the CWEA Collection Systems meeting, noting the comments received. The State Water Board plans to release a public review draft in Winter 2021, starting a 60-day public comment period.

Wipes Update

State legislation (AB 818) is expected to pass this legislative session, and will require wipes manufacturers to conduct public outreach and mplement "Do not flush" labeling July 1, 2022. Similar federal legislation has been introduced into the House (Text, Status of HR 4602). Member agencies are urged to express their support and can use this Template Outreach Letter. Members discussed strategies for reducing the impact of wipes, such as social media campaigns; outreach to schools, where flushing of brown paper towels can cause clogging; installing bar screens and wipes-resistant impeller types at pump stations; and giving doorknob hang-tags or flyers to collection system maintenance crews so they can distribute them when wipes are observed in the collection system.

Announcements – the Silicon Valley APWA chapter is hosting an "Equipment Roadeo" in Pacifica on September 22. http://siliconvalley.apwa.net/EventDetails/26829

Next Collection System Committee Meeting

Thursday, November 18th, 10 AM via Zoom

Executive Director's Report to the Board

August 2021

EXECUTIVE BOARD MEETING AND SUPPORT

- Edited minutes and action items from 7/16 Executive Board meeting
- Worked with BACWA staff to plan and manage 8/20 Executive Board meeting
- Conducted the Executive Board meeting agenda review with the BACWA Chair
- Planned and hosted 8/31 Joint meeting with Regional Water Board
- Continued to track all action items to completion
- Continued planning for October 2021 Technical Seminar
- Worked with venue to plan February 2022 Annual meeting

COMMITTEES:

- Hosted Managers Roundtable meeting to discuss staff COVID vaccination/testing policies
- Attended 8/10 Permits committee meeting focused on PFAS Phase 1 study results

REGULATORY:

- Discussed biosolids and SLR issues with Regional Water Board member
- Met with SFEI to discuss PFAS Phase 2, 8/20
- Met with R2 staff and SFEI to discuss PFAS Phase 2, 8/24
- Finalized and distributed draft BACWA PFAS Fact Sheet
- Met with member agency staff to discuss AMR update 8/25
- Met with R2 AEO to prepare for joint meeting

NUTRIENTS:

Completed a variety of tasks and activities associated with BACWA's interests on nutrients and collaborating with the Water Board including:

- Discussed NMS issues with Science Manager
- Attended 8/30 Planning Subcommittee meeting, drafted meeting notes
- Attended 8/23 BACWA Data Steering committee meeting to discuss load cap calculations
- Planned and hosted 8/25 NST meeting
- Discussed nutrient cap and baseline calculations with Board member and staff
- Reviewed documents for legal basis trading programs in other jurisdictions
- Prepared for WRF webcast on optimization by developing slides and meeting with team on 8/16 and 8/29.

FINANCE:

- Reviewed the monthly BACWA financial reports, summary, and budget to actual tracking sheet for May 2021
- Reviewed end of Fiscal Year financials with AED
- Reviewed and approved invoices
- Reviewed funding alternatives for FY22 NMS payment
- Discussed contracting issues with AED

COLLABORATIONS:

- Attended COVID-WEB general meeting 8/18
- Participated in SFEP Implementation Committee meeting 8/26
- Met to discuss draft Estuary Blueprint actions Recycled Water 8/26
- Participated in PFAS NGO/WW Workgroup meeting 8/27

ASC

- Reviewed materials sent via email by ASC ED

BABC:

- Attended meeting on 8/2 and developed meeting summary
- Reviewed draft White Paper on Biosolids application in the Baylands, developed comments, and solicited comments from BACWA members

BACC:

- Discussed FY22 BACC process with AED
- Met with AED to plan year-end meeting
- Hosted BACC year-end meeting 8/24

BACCWE

- Reviewed BACCWE email discussions

ADMINISTRATION:

- Planned for and conducted the monthly BACWA staff meeting to prepare for the Board Meeting and to coordinate and prioritize activities.
- Met with RPM to discuss progress on regulatory issues
- Signed off on invoices, reviewed correspondence, prepared for upcoming Board meetings, responded to inquiries on BACWA efforts, oversaw and participated in updating of web page and provided general direction to BACWA staff.
- Worked with the RPM in the preparation of the monthly BACWA Bulletin.
- Developed and responded to numerous emails and phone calls as part of the conduct of BACWA business on a day-to-day basis.

MISCELLANEOUS MEETINGS/CALLS:

- Worked with BACWA Chair and Committee Chairs on items that arose during the month
- Other miscellaneous calls and inquiries regarding BACWA activities
- Responded to Board members requests for information

CALIFORNIA WATER QUALITY MONITORING COUNCIL AND MEMBER EXPECTATIONS

The Mission and Authority of the California Water Quality Monitoring Council

The mission of the California Water Quality Monitoring Council (Monitoring Council) is to enhance water and associated ecosystem health monitoring programs by providing a venue for coordination and developing guidance and recommendations to build a comprehensive statewide network for Californians.

The recommendations developed by the Monitoring Council are made to the California Environmental Protection Agency and California Natural Resources Agency Secretaries (Agency Secretaries). The Agency Secretaries can implement those recommendations through their departments, boards, commissions, and conservancies. The Monitoring Council's authority consists of its ability to set examples, establish guidance, and encourage member agencies and organizations to participate. The Monitoring Council does not have authority to set regulatory standards.

Expectations of the Monitoring Council as an Organization

Monitoring Council Members are nominated by Monitoring Council Members with input from representative entities. The selection and approval process are outlined in the Monitoring Council's Governance Document.

As the leadership body, the Monitoring Council is responsible for:

- strategic planning to achieve the Monitoring Council's mission,
- resource identification, pursuit, and development,
- holding a minimum of 4 public meetings per year,
- adhering to the requirements outlined in the Bagley-Keene Open Meeting Act,
- approving and monitoring the workgroups and the products and services they produce,
- providing guidance to the workgroups and Monitoring Council staff,
- identifying emerging opportunities for the Monitoring Council to add value to California,
- conducting outreach and sharing the products and services developed by the workgroups,
- enhancing the Monitoring Council's public image,
- establishing subcommittees and action items,
- assessing its own performance as a governing body, and
- providing annual updates and recommendations to the Agency Secretaries.

Expectations of the Monitoring Council Co-Chairs

The Monitoring Council Co-Chairs represent the California Environmental Protection Agency and California Natural Resources Agency as delegated by the Agency Secretaries. As the Agency Representatives the Monitoring Council Co-Chairs lead the actions of the Monitoring Council and its staff. The Monitoring Council Co-Chairs have the authority to select and recommend Monitoring Council Members to the Agency Secretaries for confirmation and are charged with establishing consistent communication with the Agency Secretaries. In addition, the Monitoring Council Co-Chairs have the same expectations outlined for individual Monitoring Council members.

Expectations of Individual Monitoring Council Members

Individual Monitoring Council members are expected to:

- learn and know the Monitoring Council's background, mission, workgroups, and needs,
- serve at a level that can **represent your agency or sector (e.g. CASA, CASQA, ACWA)** and can engage with Agency Secretaries and the California Legislature (state agency representatives cannot advocate to the Legislature),
- serve as active advocates for implementing the Monitoring Council's strategy and fully engage in identifying and securing the resources and partnerships necessary for the Monitoring Council to advance its mission,
- leverage connections, networks, and resources to develop collective action to fully achieve the Monitoring Council's mission,
- prepare for, attend, and conscientiously participate in Monitoring Council meetings,
- communicate with the sector or agency the member represents on strategic actions in order to identify resources for the Monitoring Council and Workgroups to leverage toward achieving those actions,
- if a member cannot attend a Monitoring Council meeting ensure an alternate has been designated and can participate in their place,
- participate fully in one or more subcommittee,
- participate as appropriate in annual briefings with the Agency Secretaries, and
- act as an ambassador for the Monitoring Council when in public or while attending applicable meetings, conferences, and other events.

If a member or their alternate misses two consecutive Monitoring Council meetings and/or they continually fail to meet the expectations outlined above, their continued membership will be discussed by the Monitoring Council Co-Chairs at a public Monitoring Council meeting.

Resources

Legally Mandated Actions (California Water Code section 13181)
Memorandum of Understanding between CalEPA and the California Natural Resources Agency
Monitoring Council Governance Document
Current Monitoring Council Membership
Current Monitoring Council Workgroups

Board Calendar

Oct – Dec 2021 Meetings

DATE	AGENDA ITEMS
October – 28 & 29th 2021, Orinda Watershed HQ	
November 19, 2021	**Approvals & Authorizations:** • **Annual Report** **Policy / Strategic Discussion:** • Sean McNeil – R1 program • Biosolids Survey Report **Operational:**
December 17, 2021	**Approvals & Authorizations:** • **Policy / Strategic Discussion:** • **CPSC tentative** **Operational:** **Luncheon – Virtual**
January 21, 2022	
February 10, 2022 – Annual Meeting	

BACWA ACTION ITEMS

Number	Subject	Task	Responsibiity	Deadline	Status
	Action Items from August 2021 BACWA Executive Board Meeting		**resp.**	**deadline**	**status**
2022.8.8	SFEI PFAS 1 Study slides	Staff to place on website	ED	8/20/2021	complete
2022.8.9	Climate change mitigation and adaptation planning	BACWA RPM to pull together the sources of sea level rise estimates cited in the survey	RPM		
2022.8.10	Draft agenda for 8/31 meeting with R2 staff	BACWA ED to add selenium to agenda and share with RWB, and then board	ED	8/25/2021	complete
2022.8.11	Pardee Location	BACWA ED and AED to cancel Pardee and determine deadlines and outdoor options at Orinda	ED \ AED	8/25/2021	complete
	Action Items Remaining from Previous BACWA Executive Board Meetings				
	BAAQMD Engagement	Prepare draft letter for BAAQMD Board of Directors regarding BACT determination	RPM \ ED	5/21/2021	pending
	PFAS Study Schedule	BACWA staff to bring draft PFAS fact sheet to July Executive Board Meeting	RPM \ ED	7/16/2021	complete

FY22: 8 of 11 Action items are completed
FY21: 50 of 51 Action items completed
FY20: *70 of 70 Action Items completed*
FY19: *110 of 110 action Items completed*
FY18: *66 of 66 Action Items completed*
FY17: *90 of 90 Action Items completed*

Regulatory Program Manager's Report to the Executive Board

August 2021

BACWA BULLETIN: Completed and circulated August 2021 Bulletin

CECs: Participated in planning discussions for Phase 2 of the PFAS Regional Study.

CLIMATE: Compiled and reviewed BACWA member agency responses to the Regional Water Board's climate change questionnaire.

NUTRIENTS: Participated in data analysis steering committee meeting and Nutrient Strategy Team meeting (NST); prepared notes of NST meeting.

COMMITTEE SUPPORT:

AIR
- Compiled member responses to methane management survey.

BAPPG
- Finalized comment letter to GSA regarding Regulations.Gov website issues.
- Coordinated with pesticides team regarding tick control messaging.
- Attended and prepared meeting notes for August meeting.

Biosolids
- Began compiling results to 2021 Biosolids Survey; conducted member outreach.
- Reviewed and discussed draft White Paper regarding biosolids in Baylands.

Collection Systems
- Prepared information about wipes for August committee meeting.
- Attended and prepared meeting notes for August committee meeting.

Laboratory
- Attended and prepared notes for August committee meeting; circulated to committee.
- Assisted with second monthly TNI training session led by Diane Lawver.

Permits
- Attended and prepared notes for August committee meeting; circulated to committee.
- Finalized comment letter on Tentative Order (public review draft) of chlorine residual blanket permit amendment.
- Began review of administrative draft order for new Alternate Monitoring and Reporting Program. Circulated and solicited feedback from members; prepared draft comments.

Recycled Water
- Began work on updated Recycled Water Truck Fill guide. Conducted member outreach to obtain updated information.

ADMINISTRATION/STAFF MEETING – Participated in monthly staff meeting.

BACWA MEETINGS ATTENDED:
Laboratory Committee (8/10)
Permits Committee (8/10)
BAPPG (8/18)
Collection Systems Committee (8/19)
Executive Board (8/20, 8/31)
Nutrient Strategy Team (8/25)

EXTERNAL EVENTS ATTENDED:
BayCAN (8/4)
COVID-WEB (8/18)
CASA ACE Workgroup (8/26)