BACWA BAY AREA CLEAN WATER AGENCIES

Executive Board Meeting
AGENDA
Fri, November 19, 2021 9:00 AM - 1:00 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			
1 Resolution to continue teleconferencing Executive Board meetings (AB361)			**3-6**
CONSENT CALENDAR		**9:10 AM**	
2 September 17, 2021 BACWA Executive Board meeting minutes			**7-13**
3 October 13, 2021 Nutrient Strategy Team Meeting			**14-15**
4 September 2021 Treasurers Report			**16-24**
APPROVALS AND AUTHORIZATIONS		**9:15 AM**	
5 FY21 BACWA Annual Report			**25-46**
6 FY21 BACWA Audit Report			**47-66**
7 Approval: SFEI Phase 2 PFAS Contract			**67-69**
POLICY/STRATEGIC		**9:20 AM**	
8 Discussion: PFAS In Sportfish Workshop			**70-71**
9 Discussion: Nutrients			
a. Technical Work			
i. NMS Review Update - Mike Connor Presentation			**72-90**
BREAK (15min)			
b. Regulatory		**10:30 AM**	
i. Debrief from Nutrient Discussion at Orinda meeting			**91-92**
ii. Russian River trading program - Sean McNeil presentation	Laguna Santa Rosa Trading Framework		
c. Governance Structure			
i. October 6, 2021 Planning Subcommittee meeting notes			**93-95**
ii.November 3, 2021 Planning Subcommittee meeting notes			**96-98**
10 Discussion: BACWA Comments on AMR Tentative Order			**99-102**
11 Discussion: Review of Climate Change Survey results			**103-109**
12 Discussion: Planning for meeting with BAAQMD leadership			
OPERATIONAL		**11:45 AM**	
13 Discussion: Meeting Schedule 2022			**110**
14 Discussion: Annual Meeting Planning - venue and speakers			**111**
15 Informational: FY23 Budget planning and adoption schedule			**112**
16 Informational: BACC Update			
17 Informational: Committee leadership appreciation			
18 Discussion: Strategic Plan Proposed Update			**113-119**
19 Discussion: Guiding principles on funding for collaboratives			**120-121**
REPORTS		**12:20 PM**	
20 Committee Reports			**122-130**
21 Member highlights			
22 Executive Director Report			**131-133**
23 Board Calendar and Action Items			**134-135**
24 Regulatory Program Manager Report			**136-137**
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		**138-147**
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		
v. California Water Quality Monitoring Council	Lorien Fono		**148-151**

22 **SUGGESTIONS FOR FUTURE AGENDA ITEMS**	**12:29 PM**	
NEXT MEETING		
The next meeting of the Board is scheduled for December 17, 2021		
ADJOURNMENT	**12:30 PM**	

BACWA EXECUTIVE BOARD ACTION REQUEST

AGENDA NO.: 1

MEETING DATE: November 19, 2021

TITLE: RESOLUTION AUTHORIZING REMOTE TELECONFERENCE MEETINGS PURSUANT TO AB 361

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

RECOMMENDED ACTION

Approve Adopt the resolution authorizing remote teleconference meetings pursuant to AB 361.

SUMMARY

On March 4, 2020, Governor Newsom declared a State of Emergency to make additional resources available, formalize emergency actions already underway across multiple state agencies and departments, and help the State prepare for an anticipated broader spread of the novel coronavirus disease 2019 ("COVID-19").

All meetings of the Bay Area Clean Water Agencies (BACWA) Executive Board are open and public, as required by the Ralph M. Brown Act, Government Code section 54950 et seq. Any member of the public may attend, participate, and watch BACWA's legislative bodies conduct their business. On March 17, 2020, in response to the COVID-19 pandemic, Governor Newsom issued Executive Order N-29-20 suspending certain provisions of the Ralph M. Brown Act in order to allow local legislative bodies to conduct meetings telephonically or by other means in order to slow the spread of COVID-19. As a result of Executive Order N-29-20, staff set up virtual meetings for all Executive Board and Committee meetings. On June 11, 2021, Governor Newsom issued Executive Order N-08-21, which, effective September 30, 2021, repealed the provisions of Executive Order N-29-20 that allowed local legislative bodies to conduct meetings telephonically or by other means.

On September 16, 2021, the Governor signed AB 361 (2021), which allows for local legislative bodies to continue to conduct meetings via teleconferencing under specified conditions and includes a requirement that the Executive Board make specified findings. AB 361 (2021) took effect immediately. Pursuant to AB 361, legislative bodies are allowed to continue to meet remotely during a declared State of Emergency. In addition, remote meetings are only allowed when state or local health officials have imposed or recommended measures to promote social distancing, or when the legislative body finds that meeting in person would present imminent risks to the health or safety of attendees.

In order to continue to hold remote meetings, the Executive Board must declare every thirty (30) days that either (i) the State of Emergency continues to directly impact the ability of the members to meet safely in person, or (ii) State or local officials continue to impose or recommend measures to promote social distancing.

Since issuing Executive Order N-08-21, the highly contagious Delta variant of COVID-19 has emerged, causing an increase in COVID-19 cases throughout the State and Alameda County. As a result, the State of Emergency as declared by the Governor, continues. Health officials continue to recommend measures to slow the spread of COVID-19. Specifically, the Centers for Disease Control and Prevention (CDC) continues to recommend physical distancing of at least 6 feet from others outside of the household, and the Alameda County Health Officer issued an order for nearly all individuals to wear masks when inside public spaces, effective on August 3, 2021. Additionally, COVID-19 would present imminent risks to the health or safety of attendees, including the legislative bodies and staff, should BACWA's Executive Board hold in-person meetings.

The proposed resolution includes the necessary findings in order for the Executive Board to continue to holding remote teleconference meetings pursuant to AB 361.

Attachments: BACWA Resolution R-22-01

Approved: _____ Date: _____
Amit Mutsuddy
BACWA Executive Board

BAY AREA CLEAN WATER AGENCIES
RESOLUTION NO. R-22-01

RESOLUTION AUTHORIZING REMOTE TELECONFERENCE MEETINGS PURSUANT TO AB 361

WHEREAS, all Bay Area Clean Water Agencies (BACWA) meetings are open and public, as required by the Ralph M. Brown Act (Cal. Gov. Code 54950 – 54963), so that any member of the public may attend, participate, and watch BACWA's legislative bodies conduct their business; and

WHEREAS, on March 4, 2020, Governor Newsom declared a State of Emergency to make additional resources available, formalize emergency actions already underway across multiple state agencies and departments, and help the State prepare for an anticipated broader spread of the novel coronavirus disease 2019 ("COVID-19"); and

WHEREAS, On March 17, 2020, in response to the COVID-19 pandemic, Governor Newsom issued Executive Order N-29-20 suspending certain provisions of the Ralph M. Brown Act in order to allow local legislative bodies to conduct meetings telephonically or by other means; and

WHEREAS, as a result of Executive Order N-29-20, staff set up virtual meetings for all BACWA Executive Board meetings; and

WHEREAS, on June 11, 2021, Governor Newsom issued Executive Order N-08-21, which, effective September 30, 2021, repealed the provisions of Executive Order N29-20 that allowed local legislative bodies to conduct meetings telephonically or by other means; and

WHEREAS, on September 16, 2021, Governor Newsom signed AB 361 (2021), which allows for local legislative bodies and advisory bodies to continue to conduct meetings via teleconferencing under specified conditions and includes a requirement that the BACWA Executive Board make specified findings. AB 361 (2021) took effect immediately; and

WHEREAS, in order for legislative bodies to continue to conduct meetings via teleconferencing pursuant to AB 361 (2021), a proclaimed State of Emergency must exist; and

WHEREAS, AB 361 (2021) further requires that State or local officials have imposed or recommended measures to promote social distancing, or, requires that the legislative body determines that meeting in person would present imminent risks to the health and safety of attendees; and

WHEREAS, such conditions now exist in BACWA's jurisdiction, specifically, Governor Newsom has declared a State of Emergency due to COVID-19; and

WHEREAS, since issuing Executive Order N-08-21, the highly contagious Delta variant of COVID-19 has emerged, causing an increase in COVID-19 cases throughout the State and local Counties; and

WHEREAS, the Centers for Disease Control and Prevention ("CDC") continues to recommend physical distancing of at least 6 feet from others outside the household; and

WHEREAS, because of the rise in cases due to the Delta variant of COVID-19, the BACWA Executive Board is concerned about the health and safety of all individuals who intend to attend BACWA Executive Board and Committee meetings; and

WHEREAS, the BACWA Executive Board desires to provide a way for Executive Boarders, staff, and members of the public to participate in meetings remotely, without having to attend meetings in person; and

WHEREAS, the BACWA Executive Board hereby finds that the presence of COVID-19 and the increase of cases due to the Delta variant would present imminent risks to the health or safety of attendees, including the legislative bodies and staff, should BACWA's legislative bodies hold in person meetings; and

WHEREAS, BACWA shall ensure that its meetings comply with the provisions required by AB 361 (2021) for holding teleconferenced meetings.

BAY AREA CLEAN WATER AGENCIES
RESOLUTION NO. R-22-01

NOW, THEREFORE, BE IT RESOLVED that the Executive Board of the East Bay Dischargers Authority hereby declares as follows:

1. The above recitals are true and correct, and incorporated into this Resolution.
2. In compliance with AB 361 (2021), and in order to continue to conduct teleconference meetings without complying with the usual teleconference meeting requirements of the Brown Act, the BACWA Executive Board makes the following findings:
    a. The BACWA Executive Board has considered the circumstances of the State of Emergency; and\
    b. The State of Emergency, as declared by the Governor, continues to directly impact the ability of the BACWA Executive Board and BACWA's legislative bodies, as well as staff and members of the public, from meeting safely in person; and
    c. The CDC continues to recommend physical distancing of at least six feet due to COVID-19 and as a result of the presence of COVID-19 and the increase of cases due to the Delta variant, meeting in person would present imminent risks to the health or safety of attendees, the legislative bodies and staff.
3. The BACWA Executive Board may continue to meet remotely in compliance with AB 361, in order to better ensure the health and safety of the public.
4. The BACWA Executive Board will revisit the need to conduct meetings remotely within thirty (30) days of the adoption of this resolution.

PASSED AND ADOPTED THIS 19TH DAY OF NOVEMBER, 2021.

Amit Mutsuddy
Chair of the Bay Area Clean Water Agencies Executive Board

ATTEST:

Lorien J. Fono
Executive Director, Bay Area Clean Water Agencies

Executive Board Meeting Minutes

September 17, 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
Allan Briggs	Hazen & Sawyer
Amanda Roa	Delta Diablo
Armando Lopez	Union Sanitary District
Blake Brown	CCCSD
Craig Centris	City of Millbrae
David Senn	SFEI
Diane Griffin	Dublin San Ramon Services District
Don Gray	EBMUD
Dave Richardson	Woodard & Curran
Eric Dunlavey	City of San Jose
Jared Voskuhl	CASA
Jennifer Dyment	BACWA
Jennifer Harrington	VFWD
Jim Graydon	Woodward & Curran
Lorien Fono	BACWA
Mary Cousins	BACWA
Mary Lou Esparza	CCCSD
Matt Fabry	City of San Mateo
Melody Tovar	City of Sunnyvale
Mike Connor	Consultant
Mira Chokshi	SFPUC
Niranjana Rajagopalan	Jacobs Engineering Group
Ryujiro Tsuchihashi	Jacobs Engineering Group
Sarah Deslauriers	Carollo Engineers
Sergio Ramirez	West Bay Sanitary District
Teresa Herrera	Silicon Valley Clean Water
Tom Hall	EOA
Tim Potter	CCCSD

Amit Mutsuddy started meeting at 9:01

ROLL CALL, INTRODUCTIONS, AND TELECONFERENCE ETIQUETTE

PUBLIC COMMENT -none

CONSIDERATION TO TAKE AGENDA ITEMS OUT OF ORDER - none

CONSENT CALENDAR

1 August 20, 2021 BACWA Executive Board meeting minutes

2 August 25, 2021 Nutrient Strategy Team Meeting

3 August 31, 2021 BACWA Joint Meeting with Regional Water Board minutes

4 July 2021 Treasurers Report

Consent Calendar Items 1, 2, 3 and 4: *A motion to approve was made by Jackie Zipkin (East Bay Dischargers Authority) and seconded by Amit Mutsuddy (City of San Jose).*

APPROVALS AND AUTHORIZATIONS

5 Approval: BACWA AED contract amendment for BACC support rate increase

Approval Item 5: This amendment incorporates a new hourly rate for work to support BACC. *A motion to approve was made by Lori Schectel (CCCSD) and seconded by Jackie Zipkin (East Bay Dischargers Authority). The motion was approved unanimously.*

6 Approval: SFEI Contract Amendment for Phase 1 PFAS Study

Approval Item 6*: A motion to approve was made by Eileen White (East Bay Municipal Utility District) and seconded by Amit Mutsuddy (City of San Jose). The motion was approved unanimously.*

POLICY/STRATEGIC

7 Discussion: Nutrients

a. Technical Work

i. FY21 Science Program Overview and recent work products - David Senn, SFEI, presented. David introduced the SFEI-NMS Team and collaborators, and thanked BACWA steering committee members for participating. David summarized the NMS FY2021 program plan and gave an overview of modeling work. He explained that most of the field work planned for FY2021 was completed as planned. Some modeling and synthesis work was deferred, and there are several reports available from the modeling team. For example, a Source Apportionment Report is now available in draft form, as well as a work product related to export and mixing (water age) for flows exiting the Golden Gate. Links were provided to recent deliverables.

ii. FY22 Science Program - Dave explained that the Bay phytoplankton growth is typically light-limited, but there are specific places and times where a nutrient limitation may occur, such as the shoals of the East Bay. The science team continues to work on developing better geochemical rate information and characterizing zooplankton grazing rates, including clam grazing. The field campaign for FY22 will include fast-boat transects as well as moored sensors, with a focus on estimating Gross Primary Productivity (GPP).

BREAK

b. Regulatory

i. Discussion of R2 science needs for WSP 3.0 - Lorien Fono, BACWA Executive Director, shared a presentation from BACWA's joint meeting with the Water Board on 8/31/2021. Lorien presented slides and questions for the Water Board regarding what the three geographical designations are, how to engage partners in the investigation, how to move alternative projects forward and how to engage partner organizations. Lorien finished with a summary of the 4 science needs questions for the Water Board and science team. A group discussion followed.

Action item: BACWA Executive Director to circulate questions to BACWA members for feedback at the next NST meeting to prepare to meet with the Water Board in late October.

ii. August 25 NST meeting debrief and discussion of next steps

This discussion was tabled to the next NST meeting, now scheduled for Oct 13.

iii. Review of draft Key Tenets

This discussion was tabled to the next NST meeting, now scheduled for Oct 13.

c. Governance Structure

i. Modeling advisory group planning update - David Senn, SFEI, shared that the planning subcommittee met to work out timeline and what their approach would be. They are also identifying a chair and the key participants in the group with the goal of their first meeting being in late fall or early January.

ii. August 30, 2021 Planning Subcommittee meeting notes - notes were included in the packet.

8 Discussion: AMR Admin Draft Update - Mary Cousins**,** BACWA RPM, summarized key elements of the administrative draft order and negotiations. RPM also shared

that BACWA and the Water Board negotiated a level of total funding at $320,000, which will be memorialized in the permit amendment Fact Sheet. There were no objections from the meeting attendees to the funding amount. A discussion on how to allocate the costs of supplemental CEC monitoring between agencies is still needed. The BACWA RPM shared several options: one option could be to reflect actual savings as closely as possible vs. similar dischargers should pay a similar amounts. A discussion followed about how to divide up the funding. The RPM will reach out to agencies to explain the proposed cost allocation. The tentative order will be released soon, with comments due 30 days later.

9 Discussion: Biosolids regulation and collaboration on biosolids white paper - Lorien Fono, BACWA Executive Director, shared that there was a workshop earlier this week regarding biosolids in the Baylands that will be inundated due to sea rise. There is a need to disambiguate between biosolids in agriculture vs biosolids in wetlands.

Action item: BACWA Executive Director to communicate updates on White Paper resulting from the Workshop.

10 Informational: Chlorine Residual Blanket Permit Amendment Adoption Hearing - Mary Cousins, BACWA RPM, reported that the adoption hearing has been moved to Tuesday October 12, 2021. Board members will give oral comments supporting the amendment at the meeting. The package with amendment has gone to the OAL, and after that it will go to the EPA. RPM will do outreach at Lab Committee and Permits Committee to share the changes in the reporting requirements.

Action item – BACWA Staff to work with Board members to submit a thank you message at hearing. RPM to share changes with BACWA committees.

11 Discussion: PFAS Special Study Phase 2 update - Lorien Fono, BACWA Executive Director, shared the 6 agencies that are volunteering to participate in upstream sampling opportunities to better understand important PFAS sources. BACWA and SFEI will be collaborating with UCI who is doing a complimentary project looking at residential/commercial sources, the meeting with the State Water Board to get approval for the work. A SOW and Phase 2 contract will be brought to the Board at a future meeting.

Lunch (1 hour)

OPERATIONAL

12 Discussion: FY23 Nutrient Surcharge Allocation - Lorien Fono, BACWA Executive Director, presented a 5 year proposed NMS payment and nutrient surcharge graph. BACWA front loaded our payments for the first 3 years and the payments for the next 2 years should be less than $2.2m per year, which would allow BACWA to begin to reduce the Nutrient Surcharge.

BACWA Executive Director offered to review alternative allocation models among the BACWA principals and seek feedback from members. A general discussion followed.

13 Discussion: Bruce Wolfe Scholarship fund - Lorien Fono, BACWA Executive Director, shared there is an EBDA Board resolution in the packet, and Jackie Zipkin, EBDA, summarized that EBDA is going to set up a scholarship via the CASA education foundation. The proposed funding model was $4000 from BACWA and $1000 EBDA, for $5000 each year for 5 years.

Board was supportive of funding scholarship, but interested in expanding eligibility to disadvantaged communities.

Action item – BACWA Executive Director to work with EBDA on scholarship criteria.

14 Discussion: One Water Contribution - Lorien Fono, BACWA Executive Director, shared One Water request for contribution to support workshop series. A general discussion followed about funding level and program outcomes, and how those relate to BACWA's priorities.

Action item – BACWA Executive Director to ask One Water for contribution list.

15 Informational: BACC Update - Jennifer Dyment, BACWA AED, shared that BACC chemical purchase survey for FY2022-23 was sent out early this week and it is due by the end of September.

16 Discussion: Annual Meeting Planning - venue and speakers - Lorien Fono, BACWA Executive Director, went over a list of potential speakers for the event and suggestions for speakers followed.

Action item – BACWA ED to follow up with speakers.

17 Discussion: Arleen Navarret Award process kickoff - Lorien Fono, BACWA, Executive Director, shared that there is a draft application in the packet. BACWA ED asked for volunteers to be on the selection committee and several attendees volunteered.

Action item – BACWA ED to follow up with volunteers and previous award recipient.

18 Discussion: Program for Orinda - October 28/29 - Lorien Fono, BACWA, Executive Director, shared a program outline that is in the packet. We are still waiting to decide if meeting will be in person or not. A site visit is planned for 9/21 to look at facilities and technology options for hybrid meeting. (Updated after the meeting to add that the facilities are well suited to a hybrid meeting, so we're tentatively moving ahead with that plan).

Action item – BACWA ED to update board after the site visit.

PRESENTATION

19 Discussion: Climate change planning priorities - presentation by Andy Gunther

Board Member Andy Gunther and meeting attendees engaged in an open discussion about climate change planning, including both emissions and adaptation planning. Points of discussion included the importance of a positive working relationship between the Regional Water Board and BACWA; the importance of sediment availability; the outsized importance of transportation infrastructure in setting boundaries; and the impacts of rainfall vs. sea level rise for different member agencies.

One of the major barriers for BACWA members is the difficulty of working with County and federal flood protection agencies, which in some cases are under-staffed, under-resourced, or unwilling to engage in regional partnerships. Board Member Gunther stated that he is willing to support BACWA in engaging with these stormwater and flood protection agencies, if needed.

REPORTS

20 Committee Reports - BACWA ED shared committee reports are in the packet.

21 Member highlights - BACWA Agencies shared their vaccine requirements and COVID protocols.

22 Executive Director Report - BACWA ED shared committee reports are in the packet. ED was invited to represent the POTW community at the California Water Quality Monitoring Council. This is not anticipated to be a resource-intensive role.

23 Board Calendar and Action Items - BACWA ED shared report is in the packet.

24 Regulatory Program Manager Report - BACWA RPM shared report is in the packet.

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 3:25 PM

Nutrient Strategy Team
October 13, 2021 Meeting Summary

ATTENDEES:

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

Other Attendees:

Name	**Agency/Company**
Lorien Fono, Mary Cousins	BACWA
Dan Frost, Blake Brown, Mary Lou Esparza, Melody LaBella	CCCSD
Amanda Roa	Delta Diablo
Don Gray	EBMUD
Tom Hall	EOA
Talyon Sortor, Meg Herston	FSSD
Karin North	Palo Alto
Azalea Mitch	San Mateo
Nohemy Revilla	SFPUC
Cameron Kostigen Mumper, Emma Hinojosa	Sunnyvale
Monte Hamamoto	SVCW
Tim Grillo, Armando Lopez	USD
Jennifer Harrington	Vallejo F&WD

Eileen White called the meeting to order at 1:02 pm.

The primary objectives of the meeting were to (1) review and discuss draft key tenets for negotiation of the 3rd watershed permit and (2) prepare for the upcoming October 29th meeting with Regional Water Board staff.

Most of the discussion of key tenets centered on the following aspects of the 3rd watershed permit:

- Funding for the Nutrient Management Strategy's scientific investigations
- Calculation and implementation of precautionary Load Caps, including the following technical issues:
    - Establishing baseline loading conditions
    - Averaging over time (rolling average vs. single-year average)
    - Average over space (subembayments)
    - Accounting for organics diversion projects
    - How load caps could be used as triggers for action at project planning and

implementation levels, and timing considerations.

- Incentivization of multi-benefit projects

The group also reviewed the Regional Water Board's presentation on nutrient-related Basin Planning efforts that was previously discussed at Executive Board meetings on August 31st and September 17th.

Finally, the group reviewed a list of potential questions and discussion topics for the October 29th meeting with Regional Water Board staff.

NEXT STEPS

- The Executive Director will issue a revised version of the Key Tenets document and consensus points reflecting the meeting discussion.
- The Executive Director will provide Regional Water Board staff with a list of questions and discussion topics for the October 29th meeting.

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

October 18, 2021

MEMO TO: Bay Area Clean Water Agencies Executive Board

MEMO FROM: Samuel Feldman-Crough, Treasurer, East Bay Municipal Utility District

SUBJECT: Third 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 September 30, 2021** (Three months 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),
- Bay Area Chemical Consortium Legal Reserve Fund (BACC Legal Rsrv),
- Water/Wastewater Operator Training (WOT),

Houck, Matt

From: Feldman-Crough, Samuel
Sent: Tuesday, October 19, 2021 10:47 AM
To: Houck, Matt
Subject: RE: BACWA - September 2021 Treasurer's Report

Approved. Thank you!

Sam Feldman-Crough (he/him/his)
Debt Administrator
office: (510) 287-0441
mobile: (510) 882-6860

From: Houck, Matt <matt.houck@ebmud.com>
Sent: Tuesday, October 19, 2021 8:15 AM
To: Feldman-Crough, Samuel <samuel.feldman@ebmud.com>
Subject: BACWA - September 2021 Treasurer's Report

Hi Samuel,

Please approve BACWA - September 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 September 30, 2021, was $662,915 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. $577,467 of the ending fund balance is shown on the BACWA Fund & Investments Balance Report September 30, 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 reserves of negative $ 116,164 (i.e., actual fund balance of $85,448 less target reserves) as September 30, 2021. Reserves will increase as agencies remit their FY22 BACWA dues payments.

CBC Fund: This fund provides the resources for completing special investigations as well as meeting regulatory requirements. The ending fund balance on September 30, 2021, was $2,473,352 which is higher than the target reserve of $1,000,000. $585,903 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 reserve balance of negative $887,449 (i.e., actual fund balance of $1,887,449 less target reserves) as of September 30, 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. Reserves will increase as agencies remit their FY22 CBC fees payments.

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 September 30, 2021 (25% of the FY) are at 55.25%

Expenses as of September 30, 2021 (25% of the FY) are at 26.76%.

FY 2022
BACWA BUDGET to ACTUAL

BACWA FY22 BUDGET	Line Item Description	FY 2022 Budget	Actual Sept 2021	Actual % of Budget Sept 2021	Variance	NOTES
REVENUES & FUNDING						
Dues	Principals' Contributions	$516,909	$310,146	60%	-$206,763	FY22: no increase. 5 @ $103,382
	Associate & Affiliate Contributions	$187,793	$107,568	57%	-$80,225	FY22: no increase. 13 Assoc: $8,364; 45 Affiliate: $1,675.
Fees	Clean Bay Collaborative	$675,000	$330,516	49%	-$344,484	Prin: $450,000; Assoc/Affil: $225,000
	Nutrient Surcharge	$1,700,000	$978,654	58%	-$721,346	See Nutrient Surcharge Spreadsheet
	Voluntary Nutrient Contributions	$0	$0	0%	$0	
Other Receipts	AIR Non-Member	$7,075	$7,075	100%	$0	no increase (Santa Rosa)
	BAPPG Non-Members	$3,954	$1,318	33%	-$2,636	no increase (Sta Rosa, Sac Reg'l, Vacaville) $1,292/each
	Other	$0	$2,815		$2,815	
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**	**$1,739,940**	**55.25%**	**-$1,409,193**	

BACWA FY22 BUDGET	Line Item Description	FY 2022 Budget	Actual Sept 2021	Actual % of Budget Sept 2021	Variance	NOTES
EXPENSES						
Labor						
	Executive Director	$190,000	$31,667	17%	-$158,333	No change from FY20/FY21 budget
	Assistant Executive Director	$108,800	$17,204	16%	-$91,596	2.0% CPI (SF Bay Metro Area Dec 2020); $68/hour; Reflects 1600 hours (incl. 400 hours for BACC)
	Regulatory Program Manager	$127,400	$6,279	5%	-$121,121	$98/hour, Reflects 1300 hours
	Total	**$426,200**	**$55,150**	**13%**	**-$371,050**	
Administration						
	EBMUD Financial Services	$42,448	$0	0%	-$42,448	No change from FY20/21 budget
	Auditing Services	$5,345	$4,715	88%	-$630	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	$7,072	139%	$2,001	2% increase over FY21 actual
	Total	**$60,823**	**$11,787**	**19%**	**-$49,036**	
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	$224	13%	-$1,561	No change from FY20/21 budget; MS Exchange, Survey Monkey, PollEv, Zoom, Netfile
	Total	**$7,432**	**$994**	**13%**	**-$6,438**	

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	$0	0%	-$2,264	2% increase, Day Carter & Murphy LLP
	Total	**$5,079**	**$0**	**0%**	**-$5,079**	
Committees						
	AIR	$76,000	$11,925	16%	-$64,075	$75k consulting support, $1k misc expenses. Carollo Engineers
	BAPPG	$130,000	$11,657	9%	-$118,343	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	$893	89%	-$107	
	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**	**$24,475**	**9%**	**-$234,575**	
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	$1,000,000	38%	-$1,600,000	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**	**$1,008,971**	**30%**	**-$2,300,865**	
	TOTAL EXPENSES	**$4,116,285**	**$1,101,377**	**26.76%**	**-$3,014,908**	
	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 September 30, 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	429,753	1,087,166	662,915	577,467	85,448
804	LEGAL RSRV	300,000	-	-	300,000	-	300,000
805	CBC	1,172,137	2,310,186	1,008,971	2,473,352	585,903	1,887,449
	SUBTOTAL 1	*2,792,465*	*2,739,939*	*2,096,137*	*3,436,267*	*1,163,370*	*2,272,897*
802	BABC	*112,737*	45,750	32,555	125,932	*87,444*	38,488
806	BACC	*22,146*	*6,559*	*30,000*	(1,295)	*34,000*	(35,295)
807	BACC LEGAL RSRV	-	*30,000*	-	30,000	-	30,000
810	WOT	275,143	-	-	275,143	-	275,143
	SUBTOTAL 2	*410,026*	*82,309*	*62,555*	*429,780*	*121,444*	*308,336*
	GRAND TOTAL	**3,202,491**	**2,822,248**	**2,158,692**	**3,866,047**	**1,284,814**	**2,581,233**

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	429,753	1,087,166	662,915	38,803	701,718	701,718	-	0%	-		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	2,310,186	1,008,971	2,473,352	-	2,473,352	510,752	1,962,600	87%	-		priority # 2 for allocation
	SUBTOTAL 1	2,792,465	2,739,939	2,096,137	3,436,267	38,803	3,475,070	1,212,470	2,262,600	100%	-		
802	BABC	112,737	45,750	32,555	125,932	-	125,932	125,932	-	0%	-		pass-through funds, no allocation
806	BACC	22,146	6,559	30,000	(1,295)	-	(1,295)	(1,295)	-	0%	-		
807	BACC LEGAL RSRV	-	30,000	-	30,000	-	30,000	30,000	-	0%	-		
810	WOT	275,143	-	-	275,143	-	275,143	275,143	-	0%	-		pass-through funds, no allocation
	SUBTOTAL 2	410,026	82,309	62,555	429,780	-	429,780	429,780	-	0%	-		
	GRAND TOTAL	**3,202,491**	**2,822,248**	**2,158,692**	**3,866,047**	**38,803**	**3,904,850**	**1,642,250**	**2,262,600**	**-**			
						-	-	-	-				

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

Reconciliation to Trial Balance - accrual basis

Per Report above:					
General	2,739,939	STB	1493	2,262,600	
WOT, BABC, & BACC	82,309	STB	1505	1,642,250	
PROP	-			**3,904,850**	-
subtotal	**2,822,248**	STB	2135	(38,803)	
				3,866,047	-

Billings-Pending Receipts

4686	Mem Contrib	584,739
4687	Transfer	-
4690	Assoc Contrib	75,607
4696	Other	723,767
4731	State Grant	-
4732	Grant Retention	-
subtotal		**1,384,113**

Trial Balance Revenue Accounts

4411	Interest	(1,848)
4686	Mem Contrib	(1,277,710)
4687	Transfer	(1,030,000)
4690	Assoc Contrib	(183,175)
4696	Other	(1,713,628)
4731	State Grant	-
4732	Grant Retention	-
subtotal		**(4,206,361)**
Difference		**0**

BACWA Revenue Report as of September 30, 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	-	103,382	-	-	310,146	-	310,146	206,763
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	-	-	-	-	-	831	831	19,169
800	Bay Area Clean Water Agencies	1011133	BDO Assoc.&Affiliate Contr	187,793	-	51,188	-	-	51,188	-	51,188	136,605
800	Bay Area Clean Water Agencies	1014251	BDO Non-Member Contr BAPPG	3,954	-	1,318	-	-	1,318	-	1,318	2,636
800	Bay Area Clean Water Agencies	1014252	BDO Non-Member Contr AIR	7,075	-	7,075	-	-	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)	-	-	2,815	-	-	2,815	-	2,815	(2,815)
800	Bay Area Clean Water Agencies	1015266	BDO Affiliate/Associate Dues	-	-	30,753	-	-	30,753	-	30,753	(30,753)
800	Bay Area Clean Water Agencies	1015267	BDO Affil/CS/Assoc Dues	-	-	23,919	-	-	25,627	-	25,627	(25,627)
	BACWA TOTAL			**774,133**	**-**	**220,450**	**-**	**-**	**428,922**	**831**	**429,753**	**344,380**
805	WQA-CBC	1011099	BDO Member Contributions	675,000	-	149,766	-	-	330,516	-	330,516	344,484
805	WQA-CBC	1011108	BDO Other Receipts	1,700,000	-	373,770	-	-	978,654	-	978,654	721,346
806	WQA-CBC	1011109	BDO Fund Transfers	-	-	-	-	-	-	1,000,000	1,000,000	(1,000,000)
805	WQA-CBC	1011117	BDO- Interest Income from LAIF	-	-	-	-	-	-	1,016	1,016	(1,016)
805	WQA-CBC	1014528	BDO-Voluntary Nutrient Contrib	-	-	-	-	-	-	-	-	-
	WQA CBC TOTAL			**2,375,000**	**-**	**523,536**	**-**	**-**	**1,309,170**	**1,001,016**	**2,310,186**	**64,814**
	TOTAL			**3,149,133**	**-**	**743,986**	**-**	**-**	**1,738,092**	**1,001,847**	**2,739,939**	**409,194**

	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	-	-	33,500	-	-	45,750	-	45,750	(45,750)
802	BABC	1011109	BDO Fund Transfers	-	-	-	-	-	-	-	-	-
	BABC TOTAL			**-**	**-**	**33,500**	**-**	**-**	**45,750**	**-**	**45,750**	**(45,750)**
806	BACC	1011099	BDO Member Contributions	-	-	6,559	-	-	6,559	-	6,559	(6,559)
	BACC TOTAL			**-**	**-**	**6,559**	**-**	**-**	**6,559**	**-**	**6,559**	**(6,559)**
807	BACC LEGAL RSRV	1011109	BDO Fund Transfers	-	-	-	30,000	-	-	30,000	30,000	(30,000)
	BACC LEGAL RSRV TOTAL			**-**	**-**	**-**	**30,000**	**-**	**-**	**30,000**	**30,000**	**(30,000)**
810	WOT	1011117	BDO- Interest Income from LAIF	-	-	-	-	-	-	-	-	-
	WOT TOTAL			**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Grand Total			**3,149,133**	**-**	**784,045**	**30,000**	**-**	**1,790,401**	**1,031,847**	**2,822,248**	**326,885**

BACWA Expense Detail Report for September 30, 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	(31,667)	31,667	-	-	158,333	47,500	-	(15,833)	190,000	-
AS-Assistant Executive Directo	1011124	108,800	91,596	-	-	-	91,596	17,204	-	-	108,800	-
AS-Regulatory Program Manager	1011149	127,400	-	-	-	-	108,584	6,279	-	-	114,863	12,537
ADMINISTRATION												
AS-EBMUD Financial Services	1011125	42,448	-	-	-	-	42,448	-	-	-	42,448	-
AS-Audit Services	1014512	5,345	-	-	-	-	5,870	4,715	-	(5,240)	5,345	-
Administrative Support	1011142	-	-	-	-	-	-	-	-	1,000,000	1,000,000	(1,000,000)
AS-BACWA Admin Expense	1011118	7,959	-	-	-	-	-	-	-	-	-	7,959
AS-Insurance	1011126	5,071	-	-	7,072	-	-	-	7,072	-	7,072	(2,001)
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	-	-	64	-	-	-	224	-	224	1,561
CAR-BACWA IT Support	1014519	2,652	-	-	-	-	2,652	-	-	-	2,652	-
CAR-BACWA Website Dev/Maint	1011116	1,530	-	-	-	-	-	-	770	-	770	760
CAR-BACWA Website Hosting	1014517	700	-	-	-	-	-	-	-	-	-	700
LEGAL												
LS-Executive Board Support	1011110	2,264	-	-	-	-	2,264	-	-	-	2,264	-
LS-Regulatory Support	1011107	2,815	-	-	-	-	2,815	-	-	-	2,815	-
COMMITTEES												
AIR-Air Issues&Regulation Grp	1014253	76,000	(5,962)	5,962	-	-	63,075	11,925	-	-	75,000	1,000
BC-BAPPG	1011147	130,000	(5,180)	5,180	-	-	96,043	9,957	1,700	-	107,700	22,300
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	(455)	455	-	-	107	893	-	-	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	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**	**48,332**	**43,264**	**7,136**	**-**	**577,467**	**98,473**	**9,766**	**978,927**	**1,664,633**	**(858,354)**
TECH SUPPORT												
WQA-CE-Technical Support	1011127	100,000	-	-	-	-	-	-	-	-	-	100,000
WQA-CE-Nutrient WS Permit Comm	1014021	2,600,000	-	-	-	-	-	-	1,000,000	-	1,000,000	1,600,000
WQA-CE Risk Reduction	1014023	7,500	-	-	-	-	-	-	-	-	-	7,500
WQA-CE Addl Work Under Permit	1014254	100,000	-	-	-	-	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	(50,414)
Recycled Water Evaluation	1015566	63,525	-	-	-	-	67,190	-	-	-	67,190	(3,665)
WQA - CEC Investigations	1015569	140,000	8,500	-	-	-	51,448	13,020	-	(4,049)	60,419	79,581
WQA-NMSReviewer	1015719	50,000	-	-	-	-	50,000	-	-	-	50,000	-
TECH SUPPORT (CBC) TOTAL		**3,309,836**	**8,500**	**-**	**-**	**-**	**585,903**	**13,020**	**1,000,000**	**(4,049)**	**1,594,874**	**1,714,962**
GRAND TOTAL		**4,116,115**	**56,832**	**43,264**	**7,136**	**-**	**1,163,370**	**111,493**	**1,009,766**	**974,878**	**3,259,507**	**856,608**

BACWA EXECUTIVE BOARD AUTHORIZATION REQUEST

AGENDA NO.: 5

MEETING DATE: November 19, 2021

TITLE: Approval of the BACWA Annual Report to its Members for FY2021.

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

RECOMMENDED ACTION
Approve the BACWA Annual Report to its membership for FY2021.

SUMMARY
At the end of each fiscal year BACWA is required to prepare and Annual Report to its membership which describes the technical and financial activities of the Association for the preceding year.

FISCAL IMPACT
The Annual Report to its members is prepared by BACWA staff.

ALTERNATIVES
Do not approve the Annual Report to the membership. This is not recommended as the Annual Report is required by the BACWA JPA.

Attachment:
BACWA FY2021 Annual Report to Members

Approved:

_____ **Date: __November 19, 2021_____**
Amit Mutsuddy, BACWA Chair

BACWA Annual Report

Fiscal Year 2020/2021

The clean water community must continually rise to new challenges as our understanding of the interconnectedness of regional environmental issues continues to develop. Within this evolving landscape, the Bay Area Clean Water Agencies (BACWA) is fulfilling its mission to provide an effective voice for clean water agencies' stewardship of the San Francisco Bay's ecological, community, and economic resources. The clean water community's focus has shifted rapidly from industrial pollutant reduction to renewable resource generation, climate change mitigation and adaptation, and understanding the potential impacts of emerging contaminants on the aquatic ecosystem. Concurrently, tightening, and sometimes conflicting, air quality and biosolids management regulations are increasing cross-media challenges. BACWA provides technical expertise and a venue for collaboration to its membership, and a public utility perspective to negotiations and partnerships with regulators.

With over forty Publicly Owned Treatment Works (POTWs) and more than a hundred collection systems in the San Francisco Bay (SF Bay) region, BACWA provides a needed forum for effective coordination to ensure science-based regulations and continued water quality improvements throughout the Bay Area. Member dues and fees support BACWA's goal of ensuring that water, biosolids, and air quality regulations are well-supported by science. Even as the issues change, BACWA continues to offer the services to our members and the public that have garnered the organization much respect and success.

2020 Strategic Plan Update

In September 2020, BACWA began updating its Strategic Plan for the first time since 2009. The updated Strategic Plan, with new mission, vision, values, goals, strategies, and objectives, was approved by the BACWA Executive Board in December 2020. The 2020 Strategic Plan reflects both the current drivers impacting BACWA's members, such as nutrients and climate change, as well as our values which remain constant even as the issues evolve. The progress made by BACWA in Fiscal year 2020/2021 towards meeting the objectives in our Strategic Plan is described in Attachment A.

Links to Key BACWA Products

BACWA provides a variety of resources to its members for regulatory compliance, education, and information sharing. Links to key work products associated with these efforts are provided below:

Regulatory Compliance

- Annual NPDES Compliance Letter – submitted to the Regional Water Board, on behalf of our members demonstrating compliance with special studies required by NPDES permits. We also report participation in the Alternate Monitoring Plan, and contributions to the Regional Monitoring Program to the Regional Water Board.
- Nutrient Group Annual Report - submitted to the Regional Water Board in compliance with the Nutrient Watershed Permit.
- Nutrient Special Studies Status Update - submitted to the Regional Water Board in compliance with the Nutrient Watershed Permit.
- Land Application of Biosolids Annual Report – submitted to the Solano County Board of Supervisors.
- BAPPG Annual Report – Developed to assist member agencies in Pollution Prevention annual reporting.
- PFAS Regional Study – To address monitoring needs of the State Water Board, BACWA contracted with SFEI to begin this regional study of PFAS in Fiscal Year 2020/21. The study is ongoing.

Information sharing

- BACWA Bulletin – Distributed Monthly to keep members and the community up to date on BACWA's and our partners' activities.
- Regulatory Issues Summary matrix – Updated three times per year to give members an accessible overview of important issues impacting the clean water community.
- BACWA website - Maintained for information sharing with members.
- Baywise website – Maintained for public-facing pollution prevention messaging.
- 2018 Biosolids Trends Survey Report – Produced to help agencies understand their biosolids handling programs within a regional context.
- PFAS Phase 1 Fact Sheet – Provided to assist participating agencies in communicating their PFAS Phase 1 data to governing boards and the public.
- Annual Meeting – The Annual Meeting was held virtually in 2021, and included updates from regulators, Nutrient Management Strategy scientists and consultants, representatives from San Francisco Estuary Institute assisting with the PFAS Regional Study, and more. Meeting materials and recordings were shared with members afterwards.

Regulatory Advocacy

BACWA works with its member agencies to develop positions on proposed regulations and advocates on behalf of the regional POTW community. In Fiscal Year 2020/21, BACWA submitted 29 comment letters to EPA, Regional Water Board, State Water Board, Bay Area Air Quality Management District (BAAQMD), and the California Department of Pesticide Registration (DPR) on the following topics:

- **Chlorine.** BACWA reviewed the Basin Plan Amendment and blanket NPDES permit amendment for chlorine and oil & grease as these documents moved through the Regional Water Board and State Water Board approval process.
- **Pesticides.** BAPPG maintains a consultant team dedicated to EPA and DPR engagement through the pesticide registration review process, including review of documents such as ecological risk assessments and risk management decisions.
- **Air Emissions.** BACWA continues to advocate for BAAQMD to consider the duty of essential public services when establishing air emissions requirements.
- **Wipes.** BAPPG supported the passage of legislation requiring labeling for wet wipes packaging.

BACWA Staffing

In FY2020/2021, BACWA retained contract staff to provide Executive Director, Assistance Executive Director, and Regulatory Program Management services.

BACWA Committees and Executive Board

Support for BACWA's committees is a key means for BACWA to ensure communication between our members and to formulate positions on emerging issues that accurately reflect the needs of our membership. Members receive educational contact credits for attending committee meetings in which there is an educational component. BACWA maintains the following active committees:

- Air Issues and Regulations (AIR)
- Bay Area Pollution Prevention Group – see BAPPG 2020 Annual Report
- Collection Systems
- Laboratory
- Operations/Maintenance Infoshare
- Permits
- Pretreatment
- Recycled Water

The BACWA Executive Board meets on a monthly basis to discuss policy, strategy, and operational issues impacting the organization. Executive Board meetings are held in compliance with the California Brown Act (Government Code sections 54950-54963).

External Representation and Collaboration

BACWA provides representation at external groups such as:

- Regional Monitoring Program (RMP) Technical Review Committee
- RMP Steering Committee
- Clean Water Summit Partners
- Aquatic Science Center (ASC)/SFEI Governing Board
- San Francisco Bay Nutrient Governance Steering Committee
- San Francisco Bay Nutrient Planning Subcommittee
- San Francisco Bay Nutrient Technical Workgroup
- State Water Resources Control Board (SWRCB) Nutrient Stakeholder advisory group
- SWRCB Mercury Amendments to the State Plan stakeholder group
- Bay Area Integrated Regional Water Management Plan (BAIRWMP)
- National Association of Clean Water Agencies (NACWA) Emerging Contaminants
- California Association of Sanitation Agencies (CASA) State Legislative Committee
- CASA Regulatory Workgroup
- ReNUWIt/One Water Network
- RMP Microplastics Workgroup
- Bay Area Regional Reliability Task Force
- Association of Water Technologies (AWT) Certification Committee
- San Francisco Estuary Partnership
- California Product Stewardship Coalition
- Valley Water Countywide Reuse Master Plan
- Ocean Protection Council
- Bay Area Climate Adaptation Network
- Coastal Hazards Adaptation Resiliency Group

BACWA BAY AREA CLEAN WATER AGENCIES

FY2020/2021 Financial Report

BACWA FY21 BUDGET	***Line Item Description***	**FY 2021 Budget**	**Actuals June 2021**	**Actual % of Budget June 2021**	**Variance**
REVENUES & FUNDING					
Dues	Principals' Contributions	$516,909	$516,910	100%	$1
	Associate & Affiliate Contributions	$187,793	$191,672	102%	$3,879
Fees	Clean Bay Collaborative	$675,000	$675,750	100%	$750
	Nutrient Surcharge	$1,700,000	$1,699,970	100%	-$30
	Member Voluntary Nutrient Contributions	$0	$0		$0
Other Receipts	AIR Non-Member	$7,075	$7,075	100%	$0
	BAPPG Non-Members	$3,954	$3,953	100%	-$1
	Other	$0	$93,038		$93,038
Fund Transfer	Special Program Admin Fees (WOT)	$5,202	$1,000	19%	-$4,202
	Special Program Admin Fees (BACC)	$20,010	$29,680	148%	$9,670
	Special Program Admin Fees (WOT)	$6,000	$4,701	78%	-$1,200
Interest Income	LAIF	$20,000	$19,152	96%	-$875
	Higher Yield Investments	$18,000	$0	0%	-$18,000
	Total Revenue	**$3,159,943**	**$3,242,874**	**102.62%**	**$82,931**
BACWA FY21 BUDGET	***Line Item Description***	**FY 2021 Budget**	**Actuals June 2021**	**Actual % of Budget June 2021**	**Variance**
EXPENSES					
Labor					
	Executive Director	$190,000	190,000	100%	$0
	Assistant Executive Director	$102,551	$102,496	100%	-$55
	Regulatory Program Manager	$141,170	$139,597	99%	-$1,573

	Total	**$433,721**	**$432,093**	**100%**	**-$1,628**
Administration					
	EBMUD Financial Services	$42,448	$41,056	97%	-$1,392
	Auditing Services	$5,345	$5,240	98%	-$105
	Administrative Expenses	$7,959	$194	2%	-$7,765
	Insurance	$4,776	$4,971	104%	$195
	Total	**$60,528**	**$51,461**	**85%**	**-$9,067**
Meetings					
	EB Meetings	$2,653	$257	10%	-$2,396
	Annual Meeting	$14,369	$2,519	18%	-$11,850
	Pardee	$6,367	$0	0%	-$6,367
	Misc. Meetings	$5,306	$571	11%	-$4,735
	Total	**$28,695**	**$3,347**	**12%**	**-$25,348**
Communication					
	Website Hosting	$612	$57	9%	-$555
	File Storage	$765	$720	94%	-$45
	Website Development/Maintenance	$1,530	$415	27%	-$1,115
	IT Support	$2,652	$0	0%	-$2,652
	Other Communication	$1,785	$1,949	109%	$164
	Total	**$7,344**	**$3,141**	**43%**	**-$4,203**
Legal					
	Regulatory Support	$2,703	$0	0%	-$2,706
	Executive Board Support	$2,176	$1,166	54%	-$1,010
	Total	**$4,882**	**$1,166**	**24%**	**-$3,716**
Committees					
	AIR	$76,000	$74,982	99%	-$1,018
	BAPPG	$130,000	$133,264	103%	$3,264
	Biosolids Committee	$1,000	$0	0%	-$1,000

	Collections System	$1,000	$0	0%	-$1,000
	InfoShare Groups	$1,750	$0	0%	-$1,750
	Laboratory Committee	$1000	$0	0%	-$1,000
	Permits Committee	$1,300	$0	0%	-$1,300
	Pretreatment	$1,000	$0	0%	-$1,000
	Recycled Water Committee	$1,000	$160	16%	-$840
	Misc Committee Support	$45,000	$0	0%	-$45,000
	Manager's Roundtable	$1,000	$0	0%	-$1,000
	Total	**$260,050**	**$208,406**	**80%**	**-$51,644**
Collaboratives					
	State of the Estuary (SFEP-biennial)	$20,000	$0	0%	-$20,000
	Arleen Navarret Award	$0	$0	0%	$0
	FWQC (Fred Andes)	$7,500	$0	0%	-$7,500
	Stanford ERC (ReNUWIt)	$10,000	$0	0%	-$10,000
	Misc	$5,000	$1,500	30%	-$3,500
	Total	**$42,500**	**$1,500**	**4%**	**-$41,000**
Other					
	Unbudgeted Items				
	Other	$0	$26,559		$26,559
	Total	**$0**	**$26,559**		**$26,559**
Technical Support					
	Nutrients				
	Watershed	$2,800,000	$2,600,000	93%	-$200,000
	NMS Voluntary Contributions	$0	$30,000	0%	$30,000
	Additional work under permit	$100,000	$63,960	64%	-$36,040
	Regional Study on Nature based systems	$200,000	$136,696	68%	-$63,304
	Regional Recycling Evaluation	$60,000	$74,644	124%	$14,644
	Nutrient Workshop(s)	$0	$0	0%	$0
	General Tech Support	$250,000	$72,437	29%	-$177,563

	CEC Investigation	$50,000	$13,080	26%	-$36,920
	Risk Reduction	$7,500	$0	0%	-$7,500
	Total	**$3,467,500**	**$2,990,817**	**86%**	**-$476,683**
	TOTAL EXPENSES	**$4,305,220**	**$3,718,490**	**86.37%**	**-$586,730**
	NET INCOME BEFORE TRANSFERS	**-$1,145,277**	**-$475,616**		
	TRANSFERS FROM RESERVES	**$1,145,277**	**$475,616**		
	NET INCOME AFTER TRANSFERS	**$0**	**$0**		

List of BACWA Members as of June 30, 2020

Principals

East Bay Municipal Utility District
East Bay Dischargers Authority
- Castro Valley Sanitary District
- City of Hayward
- City of San Leandro
- Oro Loma Sanitary District
- Union Sanitary District

San Francisco Public Utilities Commission
Central Contra Costa Sanitary District
City of San Jose

Associates

Central Marin Sanitation Agency
City of Palo Alto
City of Sunnyvale
Delta Diablo
Dublin-San Ramon Services District
Fairfield-Suisun Sewer District
Napa Sanitation District
Silicon Valley Clean Water
San Mateo Wastewater Treatment Plant
South San Francisco
Vallejo Flood & Wastewater District
West County Agency

- City of Richmond
- West County Wastewater District

Affiliates

City of Alameda
City American Canyon
City of Albany
City of Antioch
City of Belmont
City of Benicia
City of Berkeley
City of Brisbane
City of Burlingame
City of Calistoga
City of Crockett
City of Fairfield
City of Livermore
City of Millbrae
City of Milpitas
City of Mountain View
City of Petaluma
City of Piedmont
City of Pleasanton
City of Redwood City
City of Richmond
City of San Bruno
City of San Carlos
City of St. Helena
Cupertino Sanitary District
Las Gallinas Valley Sanitary District
Mt. View Sanitary District
North San Mateo Sanitation District
Novato Sanitary District
City of Pacifica
Pinole/ Hercules Wastewater Treatment Plant
Rodeo Sanitary District
San Francisco International Airport
San Mateo County, Dept. of Public Works
Sanitary District of Marin County No. 1
Sanitary District of Marin County No. 2
Sanitary District of Marin County No. 5
Sausalito/Marin City Sanitary District
Sewer Authority Mid-Coastside
Sewerage Agency of Southern Marin
Sonoma County Water Agency
Stege Sanitary District
Tamalpais Community Services District
Treasure Island
West Bay Sanitary District
West Valley Sanitation District
Yountville

ATTACHMENT A

BACWA 2020 STRATEGIC PLAN

2021 EVALUATION

2020 STRATEGIC PLAN – 2021 EVALUATION

Bay Area Clean Water Agencies

BACWA's Mission

To provide an effective regional voice for clean water agencies' stewardship of the San Francisco Bay's ecological, community, and economic resources.

BACWA's Vision

To demonstrate leadership in the protection and enhancement of the San Francisco Bay ecosystem.

BACWA's Values

- Environmental stewardship
- Leadership
- Science-based decision making
- Collaboration
- Fiscal responsibility
- Watershed-based solutions

BACWA's Goals

- Advocate for regulation based on science
- Foster collaboration and relationship building with regulators and other stakeholders
- Pursue regional, multi-benefit solutions to environmental challenges
- Exemplify service and responsiveness to members and the public
- Practice good governance

GOAL 1: ADVOCATE FOR REGULATION BASED ON SCIENCE

Strategy 1 – Advocate for nutrient permitting based on science.

- **Objective 1 –** Establish a Nutrient Technical Team made up of BACWA and member agency staff to engage with the San Francisco Bay Nutrient Management Strategy (NMS) by reviewing their work products and participating in the Assessment Framework process.

  Members have been recruited from member agencies to participate in the Nutrient Technical Team (NTT). The NTT has been meeting to review NMS deliverables and give feedback to SFEI science team. This will continue in FY22, and include a special meeting in the spring to review proposed projects for FY23.

- **Objective 2 –** Solicit and contract consultant support for review and interpretation of NMS Work Products and review of the Assessment Framework process.

  Mike Connor has been retained as a consultant to provide support to the NTT and BACWA Executive Board in interpreting and providing recommendations on NMS science work. He has also provided support for a modeling uncertainty workshop and is instrumental in planning the NMS modeling advisory group. He will continue in this capacity in FY22.

- **Objective 3 –** Convene BACWA's Nutrient Strategy Team to plan BACWA position on 3rd Nutrient Watershed Permit.

  The Nutrient Strategy Team (NST) has been meeting regularly to develop key tenets for the next Watershed Permit and identify areas where more data are needed to inform decision-making.

- **Objective 4 –**Ensure financial contributions to the NMS will optimize scientific study workflow.

  BACWA has initiated discussions with the Water Board and SFEI about developing a bottom-up approach to tie funding levels to project goals.

Strategy 2 – Advocate for air regulations based on science.

- **Objective 1 –** Meet frequently with Bay Area Air Quality Management District (BAAQMD) staff to communicate clean water agencies' perspectives and capabilities. Support BAAQMD staff by providing technical information during development of regulations for short-lived climate pollutants and air toxics.

  BACWA hosted BAAQMD leadership at our Annual Meeting, and held three additional meetings with BAAQMD staff and leadership to discuss issues such as BACT, toxic air contaminants, GHG emissions, and chemical shortages. BACWA developed a survey to acquire information from members on methane

control strategies. Survey results are being compiled and will be delivered to BAAQMD staff to inform development of Regulation 13.

- **Objective 2 –** Collaborate with CASA and other clean water agencies statewide on projects to inform California Air Resources Board regulations, such as the AB 2588 compound list update and emission factor development.

  BACWA has received regular updates on statewide efforts via the air committee, and CARB has extended the timeline for AB2588 through 2028.

Strategy 3 – Advocate for biosolids management regulations based on science.

- **Objective 1 –** Work with local and state regulators to support sustainable biosolids reuse alternatives.

  BACWA has been meeting with the Regional Water Board to hold discussions about changes to biosolids reuse permitting and science needs to inform management decisions.

- **Objective 2 –** Collaborate with Bay Area Biosolids Coalition to support initiatives aimed at establishing the safety and benefits of biosolids reuse.

  BACWA has been collaborating through BABC on the development of a White Paper on biosolids in the Baylands, in association with other regional stakeholders. The final White Paper is expected in November 2021.

Strategy 4 – Advocate for emerging water quality regulations based on science.

- **Objective 1 –** Provide support for Constituents of Emerging Concern (CEC) pollution prevention and pesticides control by state and federal agencies.

  BACWA worked through BAPPG to update its pesticide regulatory and technical support contracts, and to formalize collaboration with CASQA on pesticides issues. BACWA has submitted 17 pesticides comment letters in the past year.

- **Objective 2 –** Engage in State Water Board and Ocean Protection Council initiatives, such as the reconvening of the Science Advisory Panel on CECs in Aquatic Ecosystems and the Microplastic Strategy.

  BACWA staff participated in a SCCWRP-led workgroup to define the scope of OPC's study on microplastic removal during wastewater treatment. BACWA staff also continue to participate in the RMP's microplastic workgroup.

- **Objective 3 –** Continue to participate actively in Regional Monitoring Program (RMP) technical and steering committees.

BACWA staff and representatives have participated in RMP meetings and have reported back to the BACWA Board on items such as RMP fees and technical priorities.

- **Objective 4 –** Demonstrate that BACWA can effectively implement solutions through regional projects, such as conducting the PFAS Regional Study in lieu of being compelled via a 13267 Order.

  Phase 1 of BACWA's PFAS special study is complete, and Phase 2 is in development. Phase 1 results demonstrated the value of representative sampling of POTWs, as opposed to the statewide approach which required sampling at all POTWs.

Strategy 5 – Advocate for the update of existing water quality regulations based on science.

- **Objective 1 –** Support Basin Plan amendments and triennial reviews by working with the Regional Water Board.

  BACWA has communicated informally with Water Board staff and submitted comments on each phase of the 2021 Triennial Review.

- **Objective 2 –** Work with Regional Water Board to adopt a blanket permit amendment to incorporate the Chlorine Residual Basin Plan Amendment into NPDES Permits.

  BACWA has worked with Regional Water Board staff and its members to support the October 2021 adoption of the Chlorine Residual Basin Plan amendment in to NPDES permits as a blanket permit amendment.

- **Objective 3 –** Work with regulators to reduce low value required monitoring to enhance funding for RMP CEC studies.

  BACWA worked with the Regional Water Board to develop a Tentative Order to reduce unnecessary monitoring, and to require permittees to contribute to CEC studies through the RMP. BACWA developed a proposal to equitably distribute the contributions among member agencies.

GOAL 2: FOSTER COLLABORATION AND RELATIONSHIP BUILDING WITH REGULATORS AND OTHER STAKEHOLDERS

Strategy 1 - Maintain and broaden collaboration with regulators by engaging on existing regulatory initiatives and emerging issues.

- **Objective 1 -** Continue engagement with regulators to communicate clean water agencies' challenges and opportunities related to projects of environmental benefit.

  BACWA held regular meetings with staff at the Water Board and Air District to communicate about important issues. BACWA also reached out to new staff and Board members at these entities to acquaint them with BACWA's interests and goals.

- **Objective 2 –** Collaborate with regulators on emerging initiatives such as sea level rise adaptation planning, development of incentives for climate change mitigation, identification of feasible biosolids reuse strategies, and exploration of other resource recovery opportunities.

  BACWA collaborated with the Regional Water Board on soliciting responses to a survey on climate change adaptation planning. BACWA also has been engaging regulators to discuss beneficial reuse of biosolids for climate change adaptation.

- **Objective 3 –** Work with Summit Partners to provide educational opportunities for State Water Board/Ocean Protection Council members and staff regarding clean water agencies' opportunities. Identify and develop a common understanding of mutual priorities.

  BACWA staff worked to plan a workshop on advanced treatment that will be held in December 2021. The intended workshop audience is regulators, NGOs, as well as other clean water stakeholders.

- **Objective 4 –** Work with BAAQMD staff to update standard permit conditions, with the goal of reducing permitting hurdles that impede the implementation of projects of environmental benefit.

  This effort has been put on hold due to lack of staff resources at BAAQMD, but work informing Regulation 13 will inform the permit conditions update.

Strategy 2 - Monitor legislative efforts that impact BACWA members.

- **Objective 1 –** Work with industry associations and individual members to inform their efforts on legislative advocacy.

BACWA is currently participating in a CASA-led effort in conjunction with the NGO community to propose legislation to limit the use of PFAS-containing products.

- **Objective 2 –** Consider a BACWA policy or position on how to engage in targeted legislative advocacy.

  This policy will be considered in FY22.

Strategy 3 - Maintain industry leadership by collaborating with other clean water associations.

- **Objective 1 –** Work with Clean Water Summit Partners to define and advocate on issues of statewide importance.

  BACWA staff and representatives participated in Summit Partners and CASA strategy meetings to direct resources to the most important issues. BACWA worked with the Summit Partners to host several statewide PFAS workshops

- **Objective 2 –** Inform, learn from, and jointly advocate with clean water associations such as the other Clean Water Summit Partner organizations, NACWA, and WateReuse.

  BACWA staff and representatives advocated with CASA, CVCWA, and SCAP on the State Water Board's informal staff draft SSS WDR. Collaborated with WateReuse to complete the Landscape Irrigation Guide for recycled water.

GOAL 3: PURSUE REGIONAL, MULTI-BENEFIT SOLUTIONS TO ENVIRONMENTAL CHALLENGES

Strategy 1 - Promote integrated approach to a healthy Bay.

- **Objective 1 –** Identify and establish effective collaborations with drinking water and stormwater communities to further the One Water concept and/or other multi-benefit project types.

  BACWA staff and representatives engaged in discussing interjurisdictional challenges to water reuse through the team implementing EPA's Water Reuse Action Plan Action 2.2.16, to which BACWA provided funding. In FY22 will participate in Bay Area One Water Network (BAOWN) workshop on Nature-based projects.

- **Objective 2 –** Identify and establish collaborations to implement integrated approaches to sea level rise adaptation.

  BACWA staff participated in BayCAN and discussed climate change challenges with partner regional entities.

- **Objective 3 –** Identify and implement effective pollution prevention strategies in partnership with regulators and partners.

  The Bay Area Pollution Prevention Group (BAPPG) continued to provide both public education and regulatory advocacy on pollution prevention issues.

- **Objective 4 –** Work with members and other regional entities to maximize grant funding for projects benefiting the region.

  BACWA provided letters of support for agencies pursuing grant funding for multi-benefit projects. The Proposition 84 Grant Administration effort was closed out. BACWA provided funding for the California Product Stewardship Council and the Product Stewardship Institute.

Strategy 2 - Support innovation to better address water quality and other ecological challenges.

- **Objective 1 –** Provide membership with information on technology pilot opportunities.

  BACWA provided a letter of support for Caliskaner Water Technologies proposal titled "Demonstration of Advanced Primary and Secondary Treatment Technologies for Energy/Cost/Carbon Footprint Minimization and Performance/Capacity". The proposal was ultimately funded and will provide an opportunity for BACWA members to tour the associated pilot facility.

- **Objective 2 –** Establish and continue partnerships with universities and other research institutions and initiatives to develop collaborative approaches to issues of importance to the clean water community.

  BACWA acted as liaison between UC Berkeley's COVID-WEB project and member agencies who were interested in providing samples for SARS-CoV-2 testing in Wastewater. BACWA also continued its engagement in the NMS and RMP through SFEI. In FY22 BACWA will consider its role in the future of BAOWN. BACWA is also serving as a community sponsor to a member agency Board member's Sea Grant fellowship that will look at the impacts of shallow groundwater rise on wastewater infrastructure.

- **Objective 3** – Support existing coalitions and agencies that are pursuing regional solutions to challenges impacting the San Francisco Bay clean water community.

BACWA staff serve on the San Francisco Estuary Partnership and State of the Estuary Steering Committees. BACWA participated in the 2021 Estuary Blueprint update.

Strategy 3 - Provide value to members through facilitating regional solutions.

- **Objective 1 –** Continue to provide joint compliance activities on behalf of members, such as reporting via the Annual NPDES compliance letter to the Regional Water Board.

  In FY21, BACWA submitted the annual NPDES compliance letter for use in members' NPDES Annual Reports, BAPPG Annual report for use in member's Pollution Prevention reports, the Solano County Biosolids report, as well the Nutrient Group Annual Report, and Science Plan and Special Studies progress updates required by the Nutrient Watershed Permit.

- **Objective 2 –** Continue to support and report compliance with the Mercury/PCB and Nutrient Watershed Permits.

  BACWA discussed updated mercury and PCB reporting requirements. BACWA provided a contract extension to a community-based organization conducting mercury and PCB risk reduction education to fish consumers.

- **Objective 3 –** Engage with regulators on behalf of individual member agencies when issues of regional importance arise.

  BACWA has engaged on issues such as biosolids land application and chlorine monitoring changes resulting from the new Chlorine Residual Basin Plan amendment.

- **Objective 4 –** Coordinate regional solutions to comply with new Environmental Laboratory Accreditation Program (ELAP) regulations.

  BACWA is providing monthly training sessions through its Laboratory Committee to help agencies comply with TNI.

- **Objective 5 –** Support members' biosolids programs via data-gathering, reporting, and information exchange related to biosolids management.

  BACWA conducted its 2021 Biosolids Trends Survey and plans to produce a report in FY22.

GOAL 4: EXEMPLIFY SERVICE AND RESPONSIVENESS TO MEMBERS AND PUBLIC

Strategy 1 - Ensure members are knowledgeable about critical issues and activities.

- **Objective 1 –** Communicate timely regulatory and technical information and events via BACWA committees, the BACWA Bulletin newsletter, and emails to members.

  BACWA has sent out monthly bulletins and as-needed emails. Eight BACWA committees were active and held regular committee meetings over the past year. Three regulatory issues summaries were developed and distributed. In FY22, the Asset Management Committee, which has been on hiatus since 2018, plans to restart

- **Objective 2 –** Ensure that BACWA contact lists are up to date.

  BACWA staff have been reaching out to agencies to ensure new staff are added to distribution lists and Committee Google Groups.

Strategy 2 - Provide education and outreach to members and the public.

- **Objective 1 –** Provide support for pollution prevention messaging to the public via BAPPG.

  BAPPG has continued its outreach on FOG, wipes, pharmaceutical disposal, veterinary medicines, and other pharmaceuticals. Public outreach has been conducted via advertising and the Baywise website. Veterinary outreach has been conducted via outreach to professional organizations.

- **Objective 2 –** Explore ways to support members' public communication on nutrients and other issues.

  BACWA provided a PFAS Fact Sheet to support Phase 1 of the PFAS study. In FY22, BACWA will explore developing nutrient materials to educate the public about NMS activities.

Strategy 3 - Provide forum to hear all member voices.

- **Objective 1** – Conduct outreach to all members to inform them about opportunities for participation via committees and other events.

  BACWA staff have been conducting outreach to individual agencies to inform them about opportunities for engagement.

- **Objective 2** – Ensure that each member agency is knowledgeable about and engaged in negotiations on the 3rd Nutrient Watershed Permit so that BACWA's position reflects the interests of our members.

  BACWA has provided a general forum for discussion on the 3rd Nutrient Watershed Permit via the Nutrient Strategy Team, and has been conducting outreach via discussion with member agency managers.

- **Objective 3 –** Provide forums and opportunities for information-sharing among members on issues of importance.

  BACWA has provided a forum for as-needed meetings to discuss issues relating to the pandemic. BACWA held a power supply reliability workshop in FY21. Via the Bay Area Chemical Coalition, a project of special benefit, BACWA initiated a new Google Group so member agencies could discuss the impacts of chemical shortages as well as other chemical supply issues as they arise.

- **Objective 4 –** Use technology to maximize member participation in committee meetings.

  BACWA transitioned its online conferencing to Zoom to provide continuity during the COVID-19 public health emergency and will explore the use of hybrid meetings beginning in FY22.

Strategy 4 - Provide support for Projects of Special Benefit to assist membership.

- **Objective 1 –** Continue to support the Bay Area Biosolids Coalition (BABC).

  BACWA provided administrative support to BABC, and acted as a liaison between the coalition and BACWA members who are not part of the coalition when issues of comment concern arose.

- **Objective 2 –** Complete transition of administration of the Bay Area Chemical Consortium (BACC) from DSRSD.

  The transition from DSRSD was completed, and the FY23 bid will be conducted by BACWA as the lead.

- **Objective 3 –** Support Bay Area Consortium for Water/Wastewater Education (BACWWE) as they transition to a scholarship-based system and continue collaboration with BAYWORK.

  BACWA provided administrative and communications support for BACCWE during the transition to the scholarship framework.

- **Objective 4 –** Consider any new requests for BACWA support based on members' benefits and potential costs to BACWA.

BACWA has tentatively agreed to contribute to a Bruce Wolfe memorial scholarship to honor the memory of the former Regional Water Board EO who was instrumental in developing BACWA's collaborative relationship with the Water Board.

GOAL 5: PRACTICE GOOD GOVERNANCE

Strategy 1 - Ensure BACWA Policies and Procedures conform to applicable laws and best practices.

- **Objective 1 –**Regularly review and update BACWA Policies and Procedures.

  BACWA has compiled its previously adopted Policies and Procedures. A schedule for update will be proposed in FY22.

Strategy 2 - Enhance fiscal transparency.

- **Objective 1 –** Work with EBMUD to improve readability and transparency of treasurer's reports in Executive Board Packet.

  This will be completed in FY22 with the update of EBMUD's accounting system.

- **Objective 2** – Continue to update budget 5-Year Plan to ensure BACWA can develop its financial goals and has capacity for future initiatives to meet the objectives of the Strategic Plan**.**

  BACWA has updated its 5-year plan reflecting different NMS payment scenarios.

- **Objective 3 –** Continue to improve internal controls on chain of custody to enhance transparency and security of authorizations and invoice approval process.

  BACWA completed an internal controls audit, and has finished implementing a chain of custody system that meets our needs for reliability and transparency.

BACWA EXECUTIVE BOARD AUTHORIZATION REQUEST

AGENDA NO.: 6

MEETING DATE: November 19, 2021

TITLE: Approval of Audited Financial Reports for the Year Ended June 30, 2021

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

RECOMMENDED ACTION
Approve the Audited Financial Report for Fiscal Year 2021 (BACWA Audit Communication Letter and BACWA Basic Financial Statement provided by EBMUD acting as Treasurer of BACWA.

SUMMARY
At the end of each fiscal year EBMUD requests an audit of the BACWA financials and provides the reports to BACWA. The audit are provided for Board approval. There were no significant issues found in the audit.

FISCAL IMPACT
Audits are prepared by Auditors engaged by EBMUD and paid for under the budgeted Audit Fees.

ALTERNATIVES
Do not approve the audited financial reports. This is not recommended as the audits are required by the BACWA JPA.

Attachments:
BACWA Financial Statement

Approved:

_____ **Date: November 19, 2021**
Amit Mutsuddy, BACWA Chair

BAY AREA CLEAN WATER AGENCIES

FOR THE YEARS ENDED JUNE 30, 2021 AND 2020 BASIC FINANCIAL STATEMENTS

Focused on YOU

WWW.LSLCPAS.COM

BAY AREA CLEAN WATER AGENCIES
BASIC FINANCIAL STATEMENTS
For The Years Ended June 30, 2021 and 2020

Table of Contents

INDEPENDENT AUDITORS' REPORT

To the Board of Directors
Bay Area Clean Water Agencies
Oakland, California

Report on the Financial Statements

Opinions

We have audited the accompanying financial statements of each major fund and the aggregate remaining fund information, of the Bay Area Clean Water Agencies (BACWA) as of and for the year ended June 30, 2021, and the related notes to the financial statements, as listed in the table of contents.

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective plan net position of the Bay Area Clean Water Agencies, as of June 30, 2021, and the respective changes in financial position for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinions

We conducted our audit in accordance with auditing standards generally accepted in the United States of America (GAAS) and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of the Bay Area Clean Water Agencies and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audits. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Responsibilities of Management for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; and for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the Bay Area Clean Water Agencies' ability to continue as a going concern for twelve months beyond the date of the financial statements.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with the GAAS will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users made on the basis of these financial statements.

In performing an audit in accordance with GAAS, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsible to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate to the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Bay Area Clean Water Agencies' internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about the Bay Area Clean Water Agencies' ability to continue as a going concern for a reasonable period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control-related matters that we identified during the audit.

Other Reporting Responsibilities

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis, and other required supplementary information as listed in the table of contents be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

To the Board of Directors
Bay Area Clean Water Agencies
Oakland, California

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated September 24, 2021 on our consideration of the Bay Area Clean Water Agencies' internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the Bay Area Clean Water Agencies' internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Bay Area Clean Water Agencies' internal control over financial reporting and compliance.

Lance, Soll & Lunghard, LLP

Sacramento, California
September 24, 2021

BAY AREA CLEAN WATER AGENCIES
Management's Discussion and Analysis
June 30, 2021 and 2020

This section presents management's analysis of the Bay Area Clean Water Agencies (BACWA) financial condition and activities as of and for the years ended June 30, 2021 and 2020. Management's Discussion and Analysis (MD&A) is intended to serve as an introduction to the Agency's basic financial statements. The MD&A represents management's examination and analysis of the Agency's financial condition and performance.

This information should be read in conjunction with the audited financial statements that follow this section. The information in the MD&A is presented under the following headings:

- Organization and Business
- Overview of the Financial Statements
- Financial Analysis
- Request for Information

Organization and Business

The Bay Area Dischargers Association (BADA) was created as a public entity in accordance with the terms of a Joint Powers Agreement, dated January 4, 1984, for the purpose of collecting, interpreting, and disseminating data on the aquatic life and quality of waters of the San Francisco Bay System (the Bay) with emphasis on pollution-related effects. Renamed BACWA on February 22, 2001, it is composed of BADA's five original signatory agencies ("BACWA principals"): East Bay Municipal Utility District (EBMUD), a public corporation; Central Contra Costa Sanitary District (CCCSD), a public corporation; East Bay Dischargers Authority (EBDA), a joint powers public corporation; the City and County of San Francisco (San Francisco), a municipal corporation; and the City of San Jose (San Jose), a municipal corporation. BACWA membership includes other San Francisco Bay Area sanitation agencies who are not BACWA principals. BACWA members contribute funds to cover operating expenses based on an annual work plan and budget, in accordance with sections 9 and 10 of BACWA's Joint Powers Agreement. There are thirteen associate members and forty-eight affiliate members that contribute a minimum of $8,364 and $1,675 annually, respectively.

For additional information, please see the notes to the basic financial statements.

Overview of the Financial Statements

The financial statements include a *statement of net position*, a *statement of revenues, expenses, and changes in net position, a statement of cash flows,* and *notes to the financial statements.* The report also contains other required supplementary information in addition to the basic financial statements.

BACWA's financial statements include:

The *statement of net position* presents information on the Agency's assets and liabilities, with the difference between the two reported as net position. It provides information about the nature and amount of resources and obligations at year-end.

The *statement of revenues, expenses, and changes in net position* presents the results of the Agency's operations over the course of the fiscal year and information as to how the *net position* changed during the year.

The *statement of cash flows* presents changes in cash and cash equivalents resulting from operational and investing activities. This statement summarizes the annual flow of cash receipts and cash payments, without consideration of the timing of the event giving rise to the obligation or receipt.

The *notes to basic financial statements* provide additional information that is essential to a full understanding of the data provided in the basic financial statements. The notes to basic financial statements can be found on pages 10 to 15 of this report.

Financial Analysis:

Table 1 summarizes net position at June 30, 2021 and 2020, and Table 2 summarizes revenues, expenses and changes in net position for the years ended June 30, 2021 and 2020. Both tables also include changes from the prior year.

Table 1
Summary of Net Position
June 30, 2021 and 2020

	2021	2020	Variance
Current assets	$ 3,409,873	$ 4,277,411	$ (867,538)
Current liabilities	198,104	360,991	(162,887)
Net position:			
Restricted for operating projects	-	14,923	(14,923)
Unrestricted	3,211,769	3,901,497	(689,728)
Total net position	$ 3,211,769	$ 3,916,420	$ (704,651)

- Current assets decreased by $867,538 primarily due to a decrease in member contributions, an increase in professional services expenditures, and a decrease in refundable deposits; Prop 84 deposits refunded in fiscal year 2021.

- Current liabilities decreased by $162,887 primarily due to a decrease in refundable deposits payable and accounts payable.

Table 2
Summary of Revenues, Expenses and Changes in Net Position
Years ended June 30, 2021 and 2020

	2021	2020	Variance
Operating revenues	$ 3,368,097	$ 3,391,446	$ (23,349)
Operating expenses	(4,085,650)	(3,563,521)	(522,129)
Net operating income/(loss)	(717,553)	(172,075)	(545,478)
Nonoperating revenues	12,902	48,594	(35,692)
Change in net position	$ (704,651)	$ (123,481)	$ (581,170)

- Operating revenues decreased by $23,349 due to a decrease in member contributions.
- Operating expenses increased by $522,129 primarily due to an increase in nutrient management expenditures.
- Non-operating revenues for the years ended June 30, 2021 and 2020 consisted of interest income. The decrease of $35,692 is due to a decrease in interest rates.

Request for Information

This financial report is designed to provide viewers with a general overview of The Bay Area Clean Water Agencies' finances and demonstrate BACWA's accountability for the monies it manages. If you have any questions about this report, or need additional information, please contact: the BACWA Treasurer, Samuel Feldman-Crough, PO Box 24055, MS 809, Oakland, CA 94623.

BAY AREA CLEAN WATER AGENCIES
STATEMENTS OF NET POSITION
JUNE 30, 2021 AND 2020

	2021	2020
ASSETS		
Cash and cash equivalents (Note 2)	$ 1,137,996	$ 1,923,426
Investments (Note 2)	2,262,600	2,262,600
Restricted Cash and cash equivalents	-	65,500
Accounts receivable	7,178	2,638
Prop 84 grant receivable	-	14,923
Accrued interest receivable	2,099	8,324
Total assets	3,409,873	4,277,411
LIABILITIES		
Accounts payable	198,104	295,491
Miscellaneous liabilities	-	65,500
Total liabilities	198,104	360,991
NET POSITION (Note 1B)		
Restricted	-	14,923
Unrestricted	3,211,769	3,901,497
Total net position	$ 3,211,769	$ 3,916,420

See accompanying notes to financial statements

BAY AREA CLEAN WATER AGENCIES
STATEMENTS OF REVENUE, EXPENSE
AND CHANGES IN NET POSITION
FOR YEARS ENDED JUNE 30, 2021 AND 2020

	2021	2020
Operating income:		
Member contributions	$ 1,358,850	$ 1,368,275
Other receipts	2,009,247	2,023,171
Total operating revenue	3,368,097	3,391,446
Operating expense:		
Professional services	(3,400,704)	(2,933,941)
General and administrative	(665,578)	(484,737)
Grants and other	(19,368)	(144,843)
Total operating expense	(4,085,650)	(3,563,521)
Operating loss	(717,553)	(172,075)
Nonoperating revenue:		
Interest income	12,902	48,594
Changes in net position	(704,651)	(123,481)
Total net position - beginning	3,916,420	4,039,901
Total net position - ending	$ 3,211,769	$ 3,916,420

See accompanying notes to financial statements

BAY AREA CLEAN WATER AGENCIES
STATEMENTS OF CASH FLOWS
FOR THE YEARS ENDED JUNE 30, 2021 AND 2020

	2021	2020
Cash flows from operating activities:		
Cash received from member contributions	$ 1,369,233	$ 1,545,910
Cash received from other receipts	2,009,247	2,023,171
Cash paid for supplies and services	(4,248,537)	(3,977,401)
Net cash used by operating activities	(870,057)	(408,320)
Cash flows from investing activities:		
Interest received on investments	19,127	54,415
Net decrease in cash and cash equivalents	(850,930)	(353,905)
Cash and equivalents, and investments at beginning of period	4,251,526	4,605,431
Reconciliation of cash and cash equivalents, and investments to amounts reported on the statement of Net Position		
Cash and cash equivalents	1,137,996	1,923,426
Investments	2,262,600	2,262,600
Restricted cash and cash equivalents	-	65,500
Cash and equivalents, and investments at end of period	$ 3,400,596	$ 4,251,526
Reconciliation of net operating loss to net cash used by operating activities:		
Operating loss	$ (717,553)	$ (172,075)
Adjustments to reconcile operating loss to cash flows used by operating activities:		
Changes in operating assets and liabilities:		
Accounts receivable and other receivables	10,383	177,635
Accounts payable and miscellaneous liabilities	(162,887)	(413,880)
Net cash flow used by operating activities	$ (870,057)	$ (408,320)

See accompanying notes to financial statements

NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

A. Description of Reporting Entity

The Bay Area Clean Water Agencies (BACWA) was organized on January 4, 1984 as the Bay Area Dischargers Association (BADA), and changed its name to BACWA effective February 22, 2001. BACWA was established for the purpose of collecting, interpreting and disseminating data on the aquatic life and quality of waters of the San Francisco Bay System with emphasis on pollution-related effects. BACWA is composed of five original BADA signatory agencies: East Bay Municipal Utility District (EBMUD), a public corporation; Central Contra Costa Sanitary District (CCCSD), a public corporation; East Bay Dischargers Authority (EBDA), a joint powers public corporation; the City and County of San Francisco (San Francisco), a municipal corporation; and the City of San Jose (San Jose), a municipal corporation. BACWA membership includes other San Francisco Bay Area sanitation agencies who are not BACWA principals. BACWA principals and other members contribute funds to cover operating expenses based on an annual work plan and budget, in accordance with Sections 9 and 10 of BACWA's Joint Powers Agreement. There are thirteen associate members and forty-eight affiliate members that contribute a minimum of $8,364 and $1,675 annually, respectively. BACWA has the following special programs in the fiscal year 2021. Each special program's revenues and expenses are tracked separately from BACWA's other revenues and expenses.

- *State Proposition 84 (Prop84)* is a California Department of Water Resources (DWR) program to administer funds consistent with the Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Projection Bond Act of 2006. BACWA applied for and was awarded a Prop 84 grant, State Grant No. 4600009715. The Prop 84 revenue and expenses include disbursements from DWR, disbursements to participating agencies, and administrative costs. This project has been completed in fiscal year 2021.

- *The Water Quality Attainment Strategies (WQAS)* is a program to develop and fund regional projects that benefit participants. The program changed its name to the Clean Bay Collaborative during fiscal year 2010. Revenues come from contributions from program participants and expenditures are determined by the BACWA principals.

- *Water/Wastewater Operator Training (WOT)* was a program formed with Solano County Community College to provide water operators with educational training to help them understand the standard environmental rules and regulations related to water and wastewater. Revenues are provided by participating agencies and expenditures determined by those agencies. BACWA continues its educational relationship with Solano Community College.

- *Bay Area Biosolids Coalition (BABC)* - The Bay Area Biosolids Coalition became a Special Benefits Program in fiscal year 2020, where the participants establish their budget and associated revenue needs. BABC is a regional collaboration between San Francisco Bay Area wastewater agencies that are working to develop sub-regional projects with a primary focus on beneficial use of biosolids.

NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

- *Bay Area Chemical Consortium (BACC)* - The Bay Area Chemical Consortium became a Special Benefits Program in fiscal year 2020. BACC is an administrative program governed by BACWA and supported by the BACWA Executive Director and Assistant Executive Director. BACC solicits chemical bid information from more than 60 member agencies, then arranges a group bid. BACC participant agencies are invoiced for BACWA labor and other expenses related to bid administration at the end of each fiscal year. Fiscal year 2021 was the first year the BACC program had revenues and expenses.

B. Basis of Accounting and Presentation

The accompanying financial statements report the financial position of BACWA in accordance with accounting standards generally accepted in the United States of America. As BACWA is exclusively comprised of governmental entities, the preparation of its financial statements is governed by the pronouncements of the Governmental Accounting Standards Board (GASB).

BACWA as a proprietary enterprise is accounted for on a flow of economic resources measurement focus using the accrual basis of accounting. Measurement focus refers to what is being measured; basis of accounting refers to when revenues and expenditures are recognized in the accounts and reported in the financial statements.

BACWA distinguishes *operating* revenues and expenses from *nonoperating* items. Operating revenues and expenses generally result from providing services and producing deliverable goods in connection with a proprietary fund's principal ongoing operations. Operating expenses for BACWA include the cost of sales and services and administrative expenses. All revenues and expenses not meeting this definition are reported as nonoperating revenues and expenses.

Statement of Net Position – The statement of net position is designed to display the financial position of BACWA. BACWA's fund equity is reported as net position, which is the excess of all of the Agency's assets and deferred outflow over all its liabilities and deferred inflows. Net Position is divided into three captions under GASB Statement 34. As of June 30, 2021, BACWA reported the following classifications of net position:

Restricted describes the portion of Net Position which is restricted as to use by the terms and conditions of agreements with outside parties, governmental regulations, laws, or other restrictions which the Agency cannot unilaterally alter. These principally include developer fees received for use on capital projects, debt service requirements, and fees charged for the provision of future water resources.

Unrestricted describes the portion of Net Position which is not restricted to use.

Statement of Revenues, Expenses, and Changes in Net Position – The statement of revenues, expenses, and changes in net position is the operating statement for proprietary funds. Revenues are reported by major source. This statement distinguishes between operating and non-operating revenues and expenses and presents a separate subtotal for operating revenues, operating expenses, and operating income.

NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

When both restricted and unrestricted resources are available for use, it is BACWA's policy to use restricted resources first, then unrestricted resources as they are needed.

C. Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect certain reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

D. Cash and Cash Equivalents

BACWA considers all highly liquid investments with original maturities of three months or less when purchased to be cash equivalents.

E. Fair Value Measurements

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. BACWA categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The fair value hierarchy categorizes the inputs to valuation techniques used to measure fair value into three levels based on the extent to which inputs used in measuring fair value are observable in the market.

- Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities.
- Level 2 inputs are inputs – other than quoted prices included within level 1 – that are observable for an asset or liability, either directly or indirectly.
- Level 3 inputs are unobservable inputs for an asset or liability.

If the fair value of an asset or liability is measured using inputs from more than one level of the fair value hierarchy, the measurement is considered to be based on the lowest priority level input that is significant to the entire measurement.

F. Allocation of Costs

In accordance with the adopted work plan and approved budget for the year ended June 30, 2021, all costs incurred by BACWA for general overhead and for programs with general benefit are shared by BACWA members consistent with the terms of the Joint Powers Agreement establishing the agency, between each of the original signatory members.

NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Costs incurred for programs of special benefit are allocated in direct proportion to the benefits received as approved by BACWA's Executive Board.

Prop 84, WOT, and BABC have their own budgets, and their expenditures are funded from their own separate revenues. BACC maintains a legal reserve fund that whose revenue is collected from its members and is held separately from other BACWA funds.

NOTE 2 - CASH AND INVESTMENTS

A. Composition

BACWA's cash and cash equivalents at June 30 consisted of the following deposits and investments held by EBMUD on the Authority's behalf:

	2021	2020
Demand deposits with banks	$ 1,137,996	$ 1,988,926
Local Agency Investment Fund	2,262,600	2,262,600
Total cash and cash equivalents	$ 3,400,596	$ 4,251,526

B. Collateralization of Cash and Cash Equivalents

California Law requires banks and savings and loan institutions to pledge government securities with a market value of 110% of BACWA's cash on deposit or first trust deed mortgage notes with a value of 150% of BACWA's cash on deposit as collateral for these deposits. Under California Law this collateral is held in an investment pool by an independent financial institution in BACWA's name and places BACWA ahead of general creditors of the institution pledging the collateral. BACWA has waived collateral requirements for the portion of deposits covered by federal deposit insurance.

BACWA's investments are carried at fair value, as required by generally accepted accounting principles. BACWA adjusts the carrying value of its investments to reflect their fair value at each fiscal year end, and it includes the effects of these adjustments in income for that fiscal year.

C. Credit Risk

Credit risk is the risk that an issuer of an investment will not fulfill its obligation to the holder of the investment. This is measured by the assignment of a rating by a nationally recognized statistical rating organization. As an external investment pool, the Local Agency Investment Fund was not rated as of June 30, 2021 and 2020.

NOTE 2 - CASH AND INVESTMENTS (CONTINUED)

D. Fair Value Hierarchy

BACWA categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The hierarchy is based on the valuation inputs used to measure fair value of the assets. Level 1 inputs are quoted prices in an active market for identical assets; Level 2 inputs are significant other observable inputs; and Level 3 inputs are significant unobservable inputs. The California Local Agency Investment Fund is exempt from classification for fair value hierarchy.

E. Interest Rate Risk

Interest rate risk is the risk that changes in market interest rates will adversely affect the fair value of an investment. Normally, the longer the maturity of an investment, the greater the sensitivity of its fair value to changes in market interest rates. BACWA generally manages its interest rate risk by purchasing a combination of short-term and long-term investments and holding investments to maturity. BACWA's only investment is in the California Local Agency Investment Fund which can be withdrawn at any time usually within a day.

F. Local Agency Investment Fund (LAIF)

BACWA is a participant in the Local Agency Investment Fund (LAIF), which is regulated by California Government Code §16429 under the oversight of the Treasurer of the State of California. The value of the pool shares in LAIF is determined on an amortized cost basis, which is different from the fair value of its position in the pool. BACWA's investments with LAIF at June 30, 2021 and 2020 included a portion of the pool funds invested in Structured Notes and Asset-Backed Securities. These investments included the following:

- Structured Notes are debt securities (other than asset-backed securities) whose cash-flow characteristics (coupon rate, redemption amount, or stated maturity) depend upon one or more indices and/or that have embedded forwards or options.

- Asset-Backed Securities, the bulk of which are mortgage-backed securities, entitle their purchasers to receive a share of the cash flows from a pool of assets, such as principal and interest repayments from a pool of mortgages (such as Collateralized Mortgage Obligations) or credit card receivables.

As of June 30, 2021 and 2020, BACWA had investments of $2,262,600 and $2,262,600, respectively, invested in LAIF, which had invested 2.31% and 3.37% of the pooled investment funds in Structured Notes and Asset-Backed Securities. The LAIF fair value factor of 1.00008297 and 1.004912795 as of June 30, 2021 and 2020, respectively was used to calculate the fair value of the investments in LAIF.

NOTE 3 – RELATED PARTY TRANSACTION

As BACWA does not have any employees, EBMUD provides BACWA with ongoing treasury, accounting and auditing pass-through costs, and certain technical (laboratory) services, which are reimbursed by BACWA and the related organizations on no less than a quarterly basis. Total reimbursements for the year ended June 30, 2021 and 2020, were $42,401 and $29,028 respectively, and are primarily reflected in the general and administrative expenditures on the Statement of Revenues, Expenditures, and Changes in Net Position.

NOTE 4 – RISK MANAGEMENT

BACWA's liability and property risks are insured by commercial insurance carriers. Selected insurance coverage includes:

Coverage	Policy Limit
Bodily injury	$ 5,000,000
Property damage	5,000,000
Personal injury	5,000,000
Non-owned and hired automobile liability	5,000,000
Public officials, errors, and omissions	5,000,000
Fire damage liability	1,000,000
Employment practices liability	2,000,000
Security and privacy liability	10,000,000

Any liability BACWA may have for uninsured claims are limited to general liability claims. However, BACWA has experienced no losses from such claims during the preceding three years and it therefore believes there is no liability for claims incurred but not reported.

INDEPENDENT AUDITORS' REPORT ON INTERNAL CONTROL
OVER FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS
BASED ON AN AUDIT OF FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE
WITH *GOVERNMENT AUDITING STANDARDS*

To the Board of Directors
Bay Area Clean Water Agencies
Oakland, California

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of the Bay Area Clean Water Agencies (BACWA), as of and for the year ended June 30, 2021, and the related notes to the financial statements, which collectively comprise BACWA's basic financial statements, and have issued our report thereon dated September 24, 2021.

Internal Control over Financial Reporting

In planning and performing our audit of the financial statements, we considered BACWA's internal control over financial reporting (internal control) as a basis for designing audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of BACWA's internal control. Accordingly, we do not express an opinion on the effectiveness of the BACWA's internal control.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or, significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

Compliance and Other Matters

As part of obtaining reasonable assurance about whether BACWA's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the financial statements. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

To the Board of Directors
Bay Area Clean Water Agencies
Oakland, California

Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the Agencies internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Agencies internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Lance, Soll & Lunghard, LLP

Sacramento, California
September 24, 2021

EXECUTIVE BOARD AUTHORIZATION REQUEST

AGENDA NO.: 7

MEETING DATE: November 19, 2021

TITLE: Request for BACWA Executive Board Approval for BACWA Executive Director and Chair to Negotiate and Execute Agreement with the San Francisco Estuary Institute (SFEI) for Phase 2: Study design, coordination of PFAS sample collection, data quality assurance and reporting.

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

RECOMMENDED ACTION

Authorize BACWA Executive Director to negotiate a contract with SFEI to manage Per- and Polyfluoroalkyl Substances (PFAS) Monitoring for Bay Area Publicly-Owned Treatment Works, Phase 2, in an amount not to exceed $195,000, with an additional $52,000 for optional tasks that may be authorized at a later date, for a total of $247,000. Contract to be executed by BACWA Executive Board Chair.

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 is developing and implementing 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 currently envisioned as a two-phase study, with Phase II to be developed and funded via a contract amendment after Phase I is complete.

Phase 1, now complete, involved collecting and analyzing samples from a representative set of Bay Area POTWs to measure concentrations of target PFAS and total oxidizable precursors (TOP) in wastewater influent, effluent, biosolids, and reverse osmosis concentrate. Phase 2 will focus on more refined study questions that emerged from Phase 1:

- Are residential flows an important source of PFAS to participating POTWs?
- Can specific industries (e.g., industrial laundry, food waste, semiconductor manufacturing) be identified as discharging higher than average concentrations of TOP PFAS (including oxidizable precursors and end products) to POTWs?

- How do TOP concentrations compare in influent, effluent, and biosolids from participating POTWs?

Tasks to be undertaken by SFEI in Phase 2 are listed below:

- Task 1: Project Management
- Task 2: Sampling and Plan (SAP)
- Task 3: SAP Implementation support
- Task 4: Data Management and QA/QC Review
- Task 5: Data and Report Upload to Geotracker
- Task 6: Data Analysis and Updated Technical Report
- Task 6B: Advanced Reporting with Advanced Data Analysis and Literature Review (Optional)
- Task 7: Extended Revision of Final Report from BACWA and expert review process (Optional)

Sampling is planned to begin in Q1 of 2022.

BACWA staff are currently working with SFEI staff and participating agencies to identify the analyses that will be performed in Phase 2, which will in turn dictate the level of effort associated with each of the tasks listed above. BACWA staff are also working with Water Board staff to better understand their data upload requirements for each of the matrices and analytes, which will impact the level of effort associated with Tasks 4 and 5.

Working with SFEI, $195,000 has been identified as an upper-level estimate of the level of effort associated with Tasks 1 through 6, with an additional $52,000 identified for optional tasks that may be authorized at a later date at BACWA's discretion. Once BACWA has reached a consensus with the participating members and the Water Board regarding the analysis and data management needs for Phase 2 work, then BACWA's Executive Director will negotiate a contract reflecting a level of effort no higher than the total $247,000 approved in this Authorization Request. The contract will be executed by the BACWA Chair.

SOLE SOURCE JUSTIFICATION

The RMP was selected to perform Phase 1 and Phase 2 of this study because they maintain an ongoing program to study CECs and their sources to the SF Bay, and have an existing PFAS monitoring program. The State Water Board considered SFEI's expertise and synergy of this effort with ongoing work when they agreed to exempt POTWs from the 13267 Order in exchange for a Regional Study.

FISCAL IMPACT

The FY22 Annual Budget included $140,000 for the SFEI's management of the PFAS study under the line item "CECs Investigations". A portion of those funds was anticipated to be spent on analytical laboratory costs. If needed for FY22, additional funds are available in "General Technical Support". As this project is expected to continue through Q3 2023, a significant portion of this contract is expected to be funded from the FY23 and FY24 Annual Budgets.

ALTERNATIVES

1. Convene a Special Executive Board meeting to approve the contract with the completed Scope of Work. The alternative is not recommended, since the Executive Board will be given the

opportunity to give feedback on the level of effort at the November 19, 2021 meeting, and time is of the essence for SFEI to begin to prepare the Sampling and Analysis Plan for Q1 sampling efforts.

2. Do not complete this work: This alternative is not recommended since State and Regional Water Board staff expect the BACWA community to complete the Phase 2 effort in lieu of a13267 Order.
3. Shift data management or reporting responsibility to member agencies to reduce level of effort in Phase I. This alternative is not recommended because a key advantage of a centrally managed Regional Study is data quality control.
4. Select another consultant to conduct the work: This alternative is not recommended since SFEI is uniquely qualified to complete the study and the Water Board staff supports SFEI undertaking the study.

Approved: _____ Date: November 19, 2021

Amit Mutsuddy, Chair,
BACWA Executive Board

PFAS in San Francisco Bay Fish
February 4, 2022 (tentative)

Virtual meeting to bring together environmental and public health agencies, members of local fishing communities, and the general public to discuss PFAS contamination of San Francisco Bay sport fish and build consensus for next steps to protect everyone who catches and eats fish from the Bay.

DRAFT AGENDA (v3b)

Welcome: Goals of Today's Meeting and Land Acknowledgment
Clean Water Action & San Francisco Estuary Institute **(9:00-9:15)** *15 min*

Session 1: Setting the Stage: PFAS and Perspectives from Bay Fishing Communities (85 minutes total: 9:15-10:40)

- **Introductions:** (Becky or Andria) (**9:15-9:20)**
- **Background on PFAS**
  Arlene Blum, Green Science Policy Institute **- (9:20-9:35)** *15 min*
- **A frontline community perspective**
  LaDonna Williams, All Positives Possible **- (9:35-9:50)** *15 min*
- **TBD**
  (Speaker TBD) - **(9:50-10:05)** *15 min*
- **Biomonitoring study for PFAS in San Francisco/San Jose**
  Duyen Kauffman, California Dept. of Public Health **- (10:05- 10:20**) *15 min*
- **Panel Discussion / Q&A - (10:20-10:40)** *20 min*

***Break – 10 minutes* (10:40-10:50)**

Session 2: State and Regional PFAS Monitoring (70 minutes total: 10:50-12:00)

- **Introductions:** (Becky or Andria) **(10:50-11:05)** *5 min*
- **PFAS site investigation**
  Wendy Linck, State Water Resources Control Board **- (11:05-11:20)** *15 min*
- **Results of PFAS wastewater monitoring**
  Lorien Fono and Diana Lin or Miguel Mendez, Bay Area Clean Water Agencies/San Francisco Estuary Institute **(11:20-11:35)** *15 min*
- **Insight on PFAS sources with perspectives and management approaches**
  Tom Mumley, San Francisco Bay Regional Water Quality Control Board **(11:35-11:50)** *15 min*
- **Panel Discussion / Q&A (11:50-12:15)** *20 min*

Lunch - 30 minutes **(12:10-12:40)**

Session 3. PFAS in Bay Fish (85 minutes total, 12:40-2:05 pm)

- **Introductions:** (Sherri) (**12:40-12:45)** *5 min.*

- **Cultural importance of fishing for local Native American communities**
  Valentin Lopez, Chairman of the Amah Mutsun Tribal Band, President of the Amah Mutsun Land Trust, and Sherri Norris, California Indian Environmental Alliance (Osage Nation)
  - **(12:45-1:00)** *15 min*

- **Results of PFAS sport fish monitoring**
  Jay Davis, San Francisco Estuary Institute **(1:15-1:30)** *15 min*

- **History and process of developing fish consumption guidance**
  Susan Klasing, Office of Environmental Health Hazard Assessment **(1:00-1:15)** *15 min*

- **Agency representative from state with PFAS fish consumption guidance**
  Sandra Goodrow, New Jersey Department of Environmental Protection **(130-1:45)** *15 min*

- **Panel Discussion / Q&A (1:45-2:05)** *20 min*

Break – 10 minutes **(2:05-2:15)**

Session 4. Closing Discussion (all speakers): Where do we go from here? (2:15 - 3:15) *60 min*
Potential discussion questions:

- What are the priorities of Bay fishing communities?
- Would Bay fishing communities be interested in a follow-up meeting providing additional information and time for discussion?
- Can OEHHA develop fish consumption guidance for San Francisco Bay based on currently available information?
- What are the major data gaps?
- What are potential sources of PFAS to the Bay?
- How can we reduce PFAS contamination in Bay fish?

Wrap Up- (Becky/Andria/Sherri) **(3:15-3:30)**

Review of 2021 SFEI Reports

1. Introduction and Structure

This technical memorandum proposes some recommendations for BACWA's Nutrient Technical team to consider in their role as participants in the Nutrient Management Steering committee discussions of SFEI's ongoing monitoring and modeling work. It is extracted from a review of selected SFEI 2021 publications. It does not comprise a formal peer review, but rather extracts portions of the publications' texts and figures to emphasize points of particular relevance to the BACWA agencies.

The tech memo begins with a list of overall recommendations for the BACWA Nutrient Technical Team. Those recommendations are followed by discussions the six publications, numbered according to their SFEI codes. These six publications were determined by the BACWA Technical Team to be the most impactful on BACWA policy determinations and were used to generate the overall Nutrient Technical Team recommendations:

SFEI #3 Nutrient Source Apportionment in San Francisco Bay: Pilot Study. September 2021

SFEI #4 Connections to Tidal Marsh and Restored Salt Ponds Drive Seasonal and Spatial Variability in Ecosystem Metabolic Rates in Lower South San Francisco Bay. August 2021

SFEI #5 Nutrients in the Northern San Francisco Estuary: Transport, Cycling, And Forecasted Changes After Nutrient Load Reductions. August 2021

SFEI #6 Multi-scale Trend Analysis of Water Quality Using Error Propagation of Generalized Additive Models. August 2021

SFEI #7 Modeling the Dispersal of San Francisco Bay Plume over the Northern and Central California Shelf. June 2021

SFEI #9 "Test-Drive" of San Francisco Bay Assessment Framework 1.0. June 2021

2. Overall Recommendations for BACWA's Nutrient Technical Team

1. Determine whether the science program should be structured by a specific management approach for the next permit and future permits. For instance, if the permit focus is "no loading increase," are there any scientific issues that need to be resolved to implement that approach?

2. Determine whether the Nutrient Assessment Framework will simply focus on dissolved oxygen (DO) for the next permit cycle or also include harmful algal blooms (HAB) and adjust science program support accordingly. For this next permit cycle, is it crucial to accurately define the area under consideration and its specific loadings? Does the San Francisco Water Board's approach for developing a DO goal require new science program elements?

3. Enhance the speed of reporting on the results of the Regional San nutrient-reduction project on the Bay as compared to model predictions. This program provides the biggest test of model predictions and the effectiveness of management actions. It is predicted to have measurable effects on the North, Central, and Suisun Bays.

4. As recommended previously, request that the monitoring program designers re-think how they can respond to their improved understanding of the system from the detailed studies and the need to provide more effective model-data comparisons. Four issues that are most striking are
    - The model's continuous data stream that is difficult to compare to a single temporal point.
    - The importance of nitrogen metabolism processes in the shoals.
    - The importance of having accurate light and sediment resuspension measurements in the shoals.
    - Integration of the data and modeling collected for the North Bay by state and academic scientists.

5. Determine whether the emphasis on "green engineering" or increased recycled water solutions for nutrient management strategies should compel adjustments to the science program. Several agencies employ some marsh treatment strategies. Do different designs have different nearfield effects?

6. Enlist the San Francisco Water Board's assistance in negotiating an agreement with the State Coastal Conservancy for salt pond management strategies to maximize water quality. SFEI has demonstrated significant interaction between salt pond releases, slough water quality, and DO depression north of the Dunbarton Bridge. Expanding salt marsh management goals to include water quality improvements opens up some important opportunities for BACWA and for the ecological health of the Bay.

3. Individual Report Summaries and Comments of Major Publications

This section discusses key points of the six SFEI publications and includes some of their figures. The SFEI figures have been renumbered for this review, and some of their conclusions have been edited for relevance to BACWA.

3.1 SFEI #3. Nutrient Source Apportionment in San Francisco Bay: Pilot Study

Deciding how to compare individual point source contributions to overall estuarine impacts of nutrients is a complicated technical evaluation as well as a managerial one. Different estuarine regulatory managers have sometimes ignored POTW location (e.g., Puget Sound) or developed a specific weighting factor to allocate responsibility (e.g., Long Island Sound, Chesapeake Bay tributary strategies). Like Long Island Sound, San Francisco Bay has a very clear gradient of dilution and residence time, which has resulted in a clear gradient of oxygen impacts from nutrient discharges. The effect on HABs is less obvious.

SFEI has used two methods to clarify source apportionment: considering transport processes alone, a method first presented several years ago; and adding biological transformation processes of nutrient metabolism, as reported in this publication. SFEI started with a one-year baseline biogeochemical simulation, using actual nutrient loads from all point sources to allocate responsibilities among the POTW sources, developing a zone of influence for each plant. Then, source-tracking simulations were run for each point source. The source-tracking runs simulated the full transport and biogeochemistry, but also used simulated nutrient loads for individual point sources, which were reduced iteratively by 25% throughout the year. Differences between the Before-After Simulation Evaluation (BASE) results and results from each source-tracking run were then used to independently quantify each point source's influence on nutrient concentrations and transport fluxes. By simulating full transport and biogeochemistry, the approach allowed for tracking DIN in each point source during transport and through multiple transformations. The individual POTW signatures could then be combined to determine regional source signatures for different ways of defining Bay Management Units, the sub-divisions of the Bay that the Water Board will use to define compliance with water quality standards.

A similar approach was recently presented in Puget Sound, but the Puget Sound exercise reduced the individual POTW loads by 100%, which is presumably more disruptive to the results, because it significantly changes overall nitrogen concentrations. The Puget Sound Source Allocation effort also included external loads from the ocean, but the SFEI team did not, so, in comparison, the SFEI final results may be overstating the effect of removing POTW loads.

3.1.1 Summary of Results

Figure 1 shows SFEI's allocations of the relative percentage nitrogen contributions of each of the POTWs to the five San Francisco Water Board geographic Management Units. No significant qualitative differences were seen using this more sophisticated methodology compared to SFEI's earlier use of conservative tracers. It would be helpful if SFEI presented a figure showing how adding nutrient transformations altered the allocations to see if there were any large outliers.

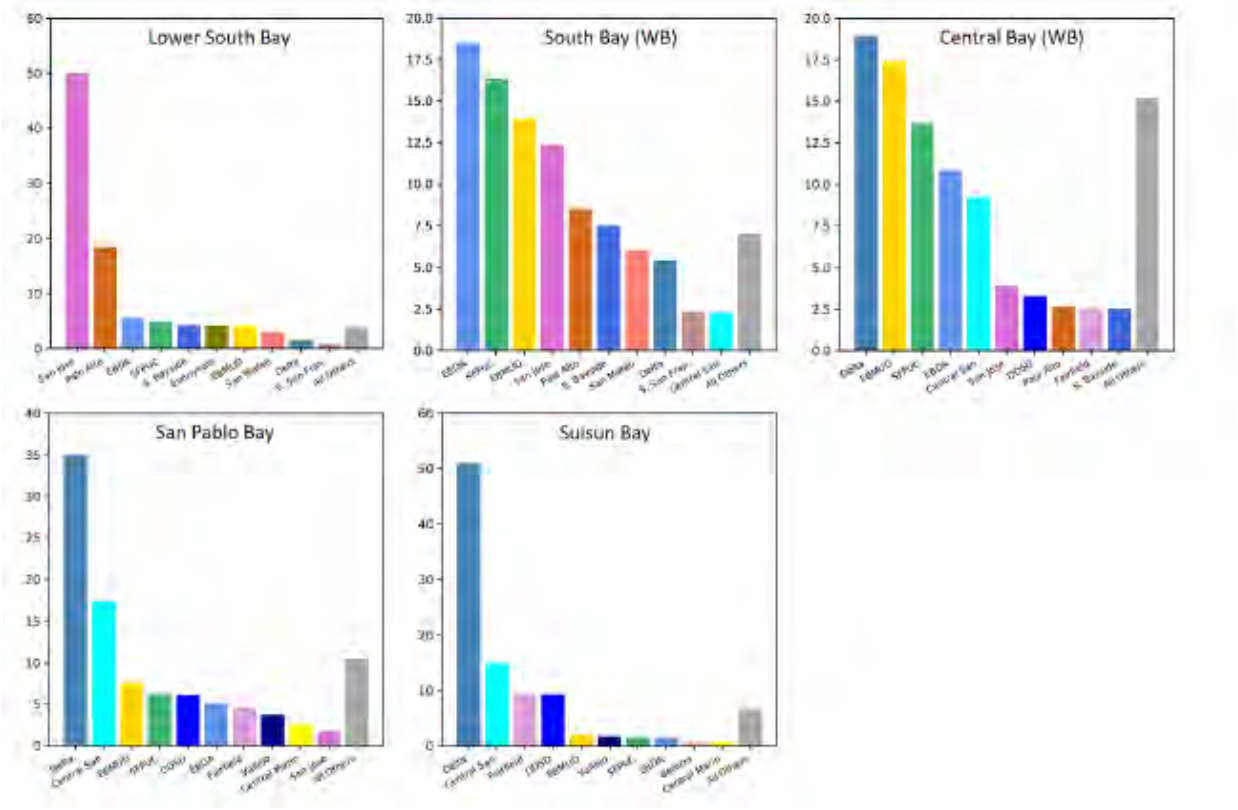


Figure 1. Percentage contribution of different sources to the overall nitrogen load in five regions of San Francisco Bay.

3.1.2 Estimating the Potential Variability of Model Results by Seasonal Variability Comparisons

Model allocations of nitrogen contributions from various sources obviously differ depending on the variability of outside drivers that could change Bay circulation (e.g., freshwater flows), nitrogen inputs from other sources (coastal upwelling nitrogen transported through the Golden Gate), and seasonal and annual differences in the importance of nitrogen limitation versus light or grazing limitations. A quick way to estimate how variable model allocations might differ under different scenarios would be to evaluate how the loading allocations differ in the South Bay during the year (Figure 2). For instance, the estimate of San Jose's contribution ranges from about 12.5% in summer to 17% in winter, with an annual mean of 15%.

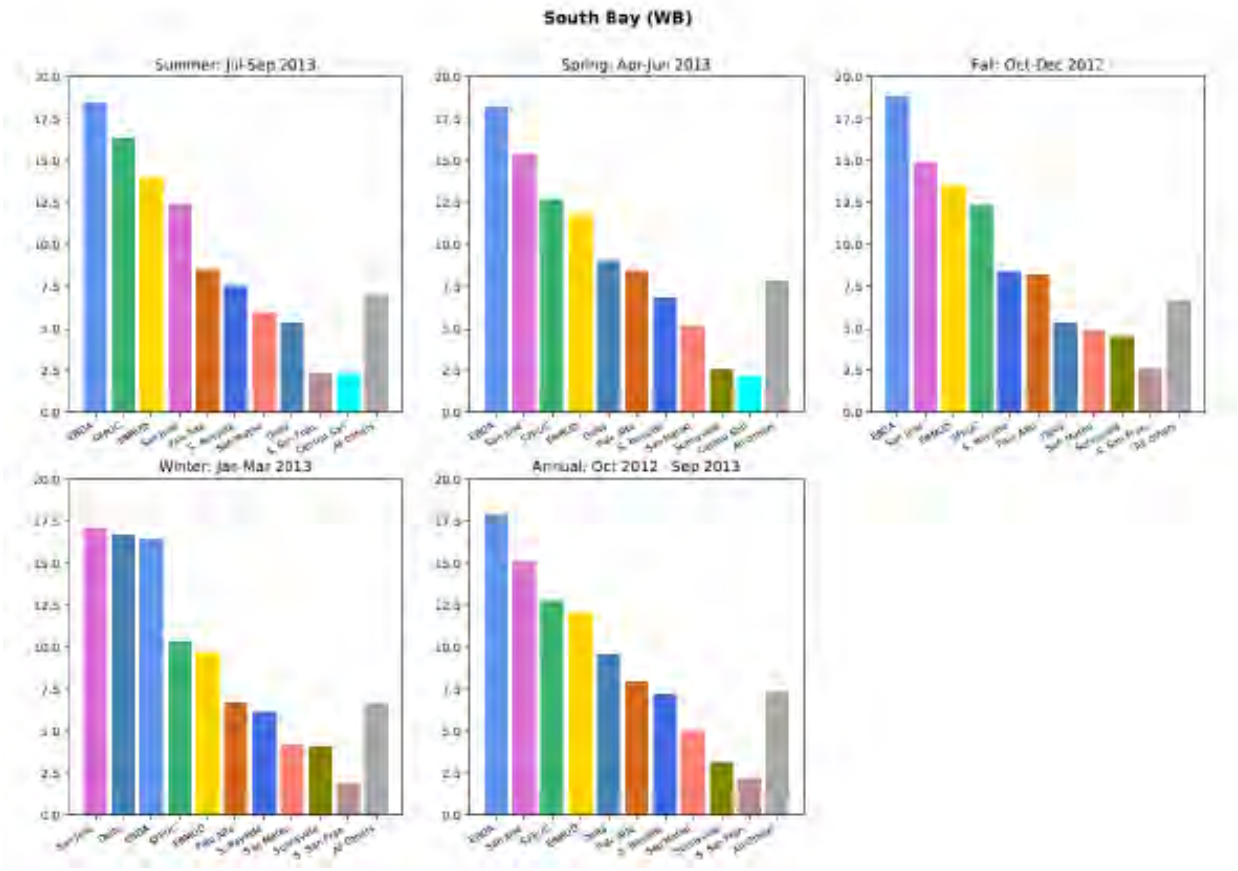


Figure 2. Variability in the point source allocation percentage by season in the South Bay.

3.1.3 Defining Source Allocations Impact by Management Unit Area or Volume

The source apportionment results are mostly presented by defining area-weighted contributions. Since the Bay's sub-regions have different volumes, SFEI tested the impact of this default approach, assessing the extent to which averaging assumptions influence source apportionment results. The results of these different assumptions are compared for South Bay in Figure 3. While volume-weighting makes some changes to the overall percentage contributions, it did not significantly change the relative contribution by sources.

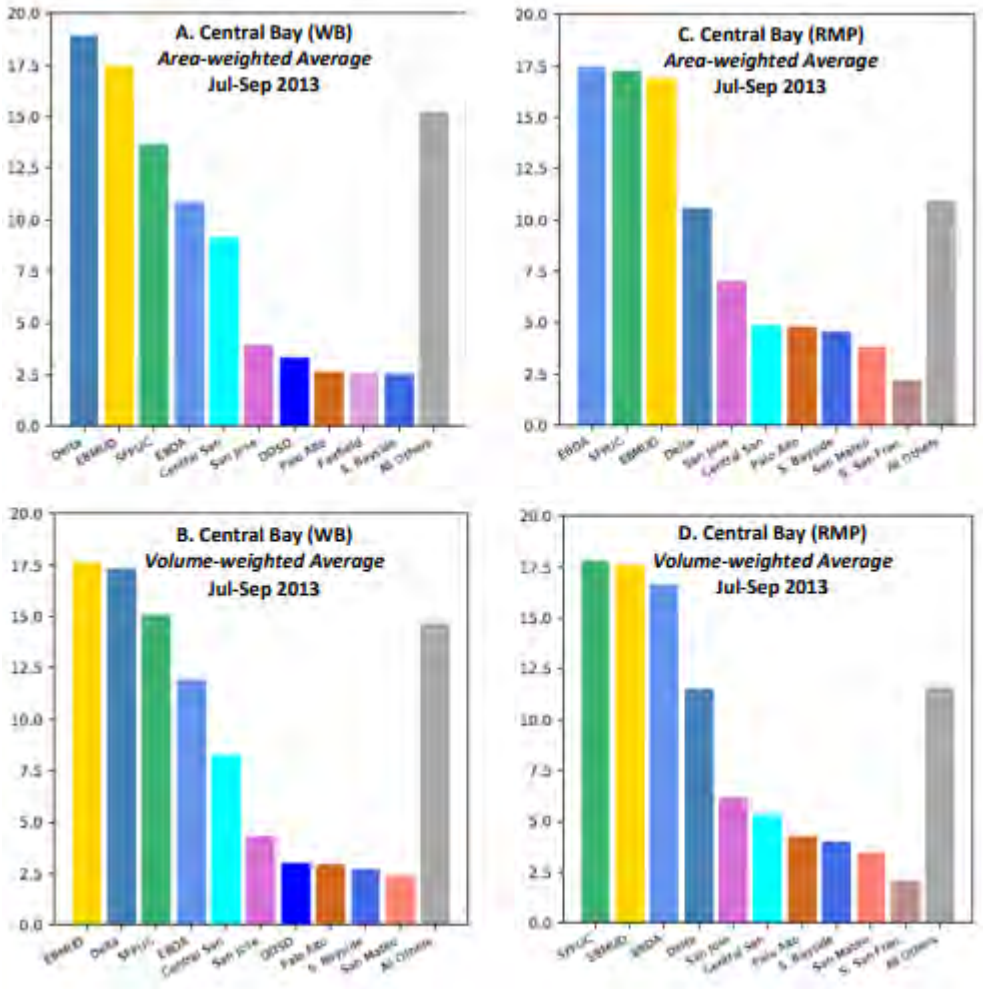


Figure 3. The effect of using different approaches (area- or volume-weighted) and boundaries (San Francisco Water Board or RMP) on calculating the contribution of different sources to regional nutrient loads.

3.1.4 Comparison of Water Board to Regional Monitoring Program Sub-Regions/Management Units

There are some small geographical differences between how the San Francisco Water Board and the Regional Monitoring Program (RMP) define the Bay's sub-regions (Management Units). SFEI's sophisticated, detailed model allowed it to reconsider the reliability of Management Units, as defined by the Water Board and the RMP, through the use of cluster analysis. Comparing similarity of 100-grid cells allows for evaluating how different allocation schemes for the Bay might look, depending on whether the analysis used 4, 5, or 6 Management Units (Figure 4). Given the extensive transport of nitrogen across unit boundaries reported above for 5 units, it is not clear that there is any significant advantage to more than 2 or 3 units.

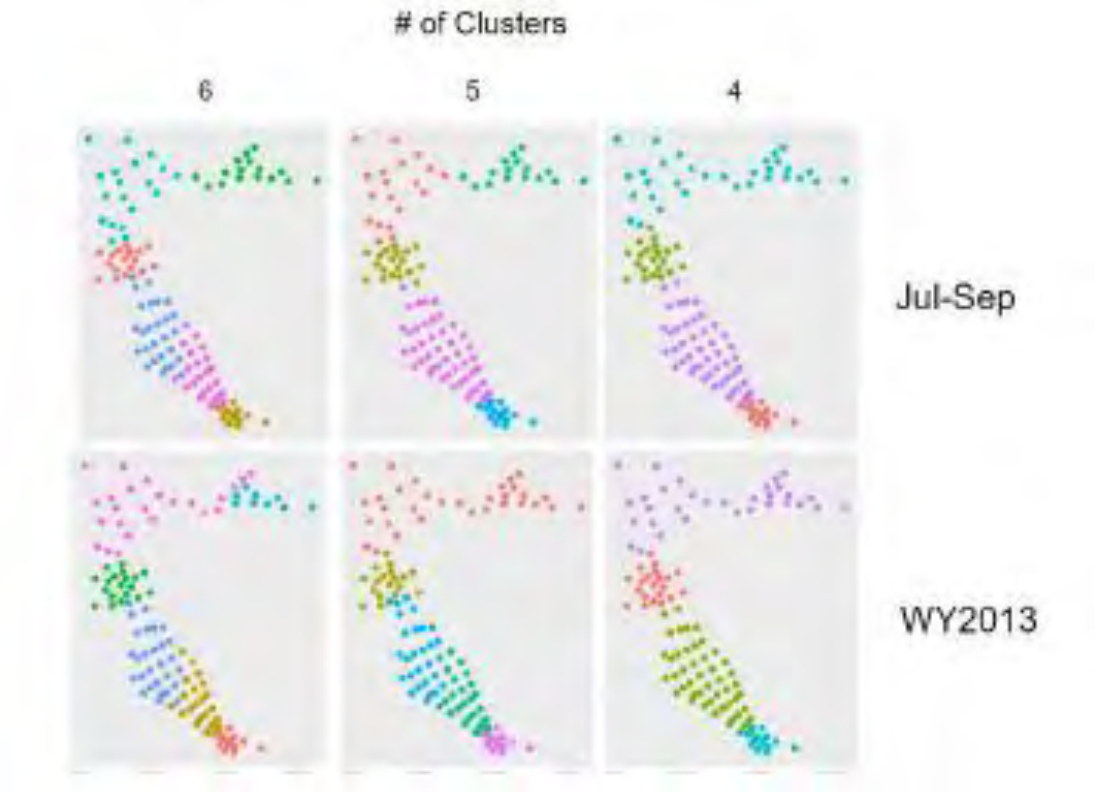


Figure 4. Defining sub-regions (Management Units) of the Bay using cluster analysis.

3.1.5 Next Steps

What is impressive from this study is how little the qualitative story of the zone of influence of different POTWs changes with the addition of biological processes. This finding raises the question of how much more sophisticated modeling output is necessary to make a management decision. It is not clear that the management alternatives will change markedly given the significant variability in apportionment depending on season of the year, flows from the Delta and transfer across the Golden Gate.

Two simple requests from BACWA would help resolve these issues:

- Provide a table providing a comparison of the summary graphic in the report's "**Figure 3.4. Point source...**" This comparison would allow a quick determination of whether a more sophisticated modeling framework would change any management decisions.
- Add in the ocean exchange loading to the figures to show how large the internal San Francisco Bay sources are compared to the ocean exchange. This addition would not change the overall apportionment issue, but would allow for some assessment of where cutting off internal sources would have the biggest impact.

A decision about further modeling efforts depends on how the point source allocation work might be used. Some possible options and their consequences to further modeling scope include

- Definition of de minimis impact outside a POTW's home discharge sub-embayment. Since most DO impacts are associated with the Lower South Bay, the study could be used to determine whether POTW discharges outside this region should also have nutrient reduction goals. Such a determination also opens an issue of regional equity and potential environmental justice that would probably need to be resolved to determine how much additional model sophistication is needed.
- Determination of further Management Unit delineation. The current model effectively uses cluster analysis to delineate zones for 4–6 Management Units. The utility of more delineations seems unlikely, but it might be helpful to use the process to determine whether fewer, 2 or 3 Management Units, would be adequate.
- Method to implement specific TMDL allocation and load trading. Following the Long Island Sound model, SFEI would need to determine a critical grid cell in the Management Unit and determine the relative source allocation by each POTW reaching that grid cell.
- Definition of an Appropriate Contribution Zone to the Non-Compliance Area. The Water Board may simplify the Management Zone process by defining a management zone around an area of non-compliance or a predicted hypoxic zone defined by monitoring and modeling results

3.2 SFEI #4 Connections to Tidal Marsh and Restored Salt Ponds Drive Seasonal and Spatial Variability in Ecosystem Metabolic Rates in Lower South San Francisco Bay

3.2.1 Summary of Results

SFEI characterized five years of seasonal respiration and photosynthesis rates by tracking DO and chlorophyll in two tidal sloughs in Lower South Bay: Newark Slough, which is surrounded by a broad tidal marsh and Alviso Slough, which is connected to restored salt ponds. Despite comparable seasonal DO patterns with annual minima, the two sloughs showed quite different seasonal metabolic rates (Figure 5). In Newark Slough, respiration rates peaked in summer (about 10 grams of oxygen per square meter per day), coincident with highly dynamic net ecosystem production (NEP) rates. The peaks in DO consumption were strongly correlated with temperature and tidal elevation. The most negative NEP rates were associated with the highest night-time tides, when strong over-marsh respiration rates are not be balanced by production. Thus, the combination of warmer water and higher-high tides with dark hours during summer may largely explain seasonal DO patterns in the Newark Slough. Unlike Newark Slough, which was regularly in metabolic balance, or even net autotrophic, Alviso Slough was consistently net heterotrophic, with NEP rates often below 10 grams per square meter per day, correlated with peak phytoplankton production and export from the adjacent pond in spring. The data were consistent with the hypothesis that organic matter exported from the pond exerts oxygen demand in the turbid slough. The effect of the elevated spring respiration rates appeared to be offset by the oxygen super-saturated water entering the slough from the adjacent, highly productive pond.

During these spring-tide higher highs, tidal marsh makes up 37% of the Lower South Bay surface area and 11% of the volume (compared to 7.3% and 2.8% respectively at mean sea level). Thus, summer spring tides constitute a convergence of warm temperatures and extensive dark-hours marsh flooding that combine, in part, to drive DO minima.

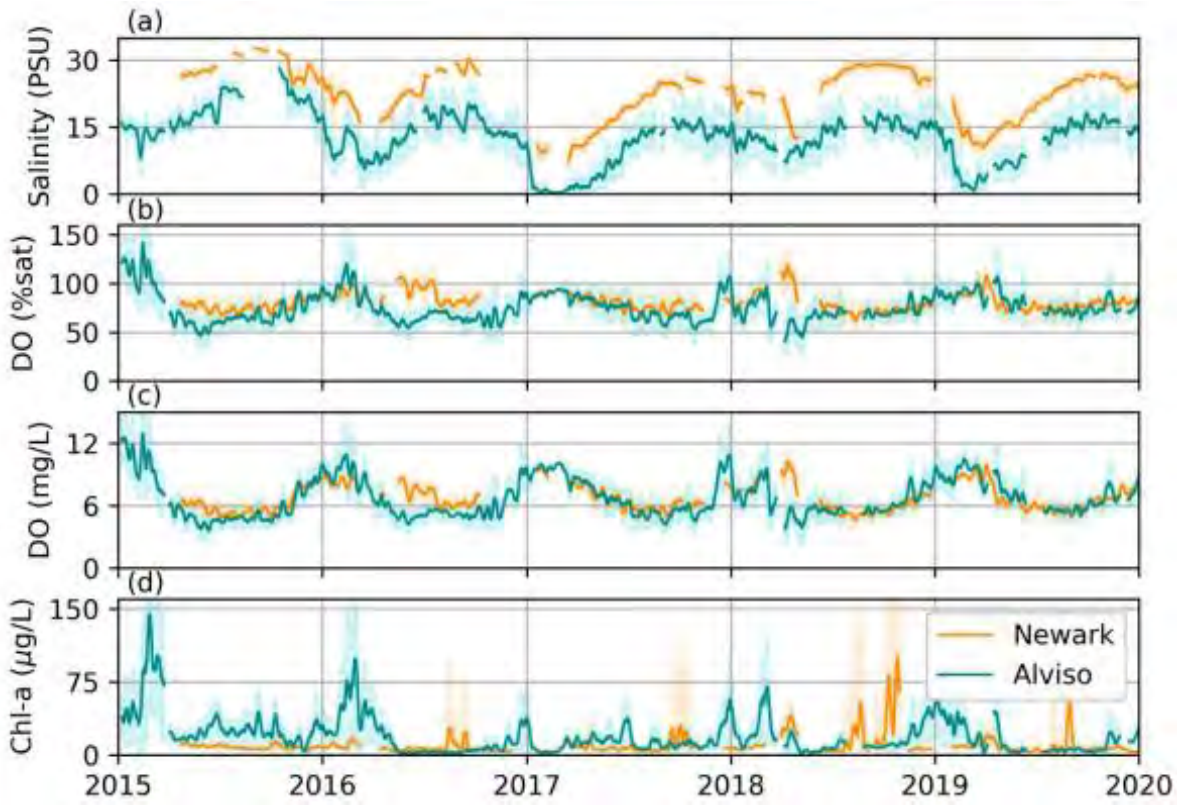


Figure 5. Long-term water quality data from Newark (orange) and Alviso (blue) sloughs. (a) Salinity (PSU); (b) dissolved oxygen saturation (%); (c) dissolved oxygen concentration (mg/L); (d) chlorophyll-a concentration (µg/L). Centered, seven-day moving-averages are shown as darker lines with lighter colors showing +/- one standard deviation in the same seven-day period.

The strong net heterotrophy in the pond-slough complexes may set a lower DO baseline that ultimately contributes to the magnitude of the marsh-driven fortnightly pattern in low DO at the Dumbarton Narrows. Both the Lower South Bay and slough-scale DO patterns appear to be driven by a combination of natural and anthropogenic factors. Oxygen drawdown during nighttime marsh flooding is a natural pattern, but POTW nutrient loads could be contributing to over-marsh metabolism and, thus, magnifying this pattern. Oxygen minima may be partially driven by natural marsh flooding patterns, but low baseline oxygen conditions in pond-connected sloughs almost certainly contribute to the magnitude of these minima. Nutrient-enriched waters, driven into these ponds during flood tides likely catalyze the high rates of in-pond biomass production that ultimately contribute to strong net heterotrophy and thus, the lower baseline DO concentrations in the surrounding sloughs.

3.2.2 Future Salt Pond Management Strategies

To some extent, the salt ponds behave as tertiary treatment plants, with algae converting the high incoming nutrients to phytoplankton biomass that is exported to sloughs, where it can promote respiration rates similar to the effect of primary influent from the Bay's POTWs. Actively managing these ponds for the joint goals of maximizing water quality as well as shorebird habitat could include strategies of

- Aerating salt pond effluent during the night and early morning, particularly after night-time high-high tides.
- Maximizing *Spartina* cover to minimize nutrient and carbon export spikes.
- Maximizing phytoplankton grazing with oyster or clam racks at the pond entrance.
- Maximizing denitrification by providing more carbon (David Sedlak has shown this process to be successful in treating reverse osmosis concentrate with wetland biomats).

3.3 SFEI #5 Nutrients in the Northern San Francisco Estuary: Transport, Cycling, And Forecasted Changes After Nutrient Load Reductions

3.3.1 Delta Response to Sac Regional Upgrade

This report provides an overview of the SFEI model's predictions of how nutrient concentrations in the Delta will respond when the Regional San upgrade is completed. SFEI uses many of the mass balance and graphical tools that have been presented for the rest of the Bay. Complicated flow regimes to manage fresh water make the Delta predictive efforts much more complicated, and the report emphasizes the dramatic effects of one of those controls, the Delta Cross Channel, on stimulating the growth of invasive aquatic vegetation.

3.3.2 Implications to Bay Nutrient Impacts

The report uses Suisun Bay as an example to demonstrate how monitoring and modeling design can be used to evaluate the potential effects of reduction in nutrient inputs. Suisun Bay receives most of its freshwater from the Sacramento River, and changes to nitrogen imports and exports will change ambient nitrogen concentrations and ecosystem effects. Annual average dissolved inorganic nitrogen (DIN) fluxes to Suisun Bay are now about 20 Mg/day. The seasonal variation of these loads can vary five-fold, with minimum loads of 5–6 Mg/day during the dry season and maximum loads of 25–30 Mg/day during the winter and early spring. The combined DIN loads from the four POTWs that discharge directly to Suisun Bay range between 5 and 6 Mg/day. During the summer, direct POTW loads and inputs from the Delta each contribute about 50% to the total DIN loads. In high flow months, though, the Delta dominates DIN loads to Suisun Bay, accounting for about 85% of DIN loads to Suisun Bay (Figure 6).

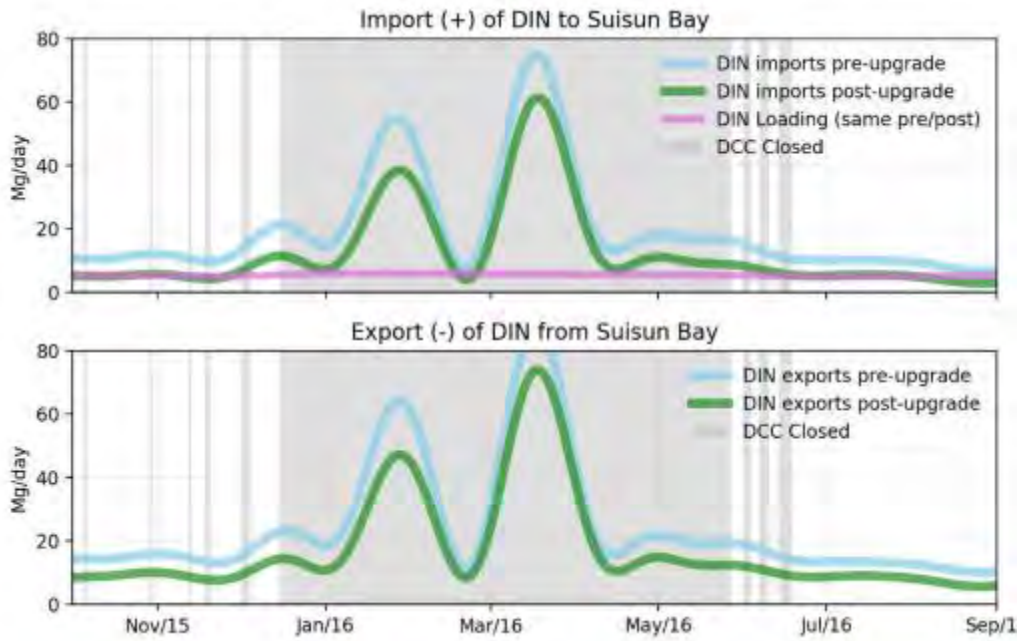


Figure 6. Suisun Bay DIN imports and exports before (blue) and after (green) Regional San upgrade.

DIN concentrations along a Suisun Bay transect differed by as much as 50% between pre- and post-upgrade model simulations (Figure 7). DIN changes varied seasonally, with the largest reductions of 0.1–0.2 mg nitrogen/L occurring in mid-winter, and the smallest during late summer and early fall.

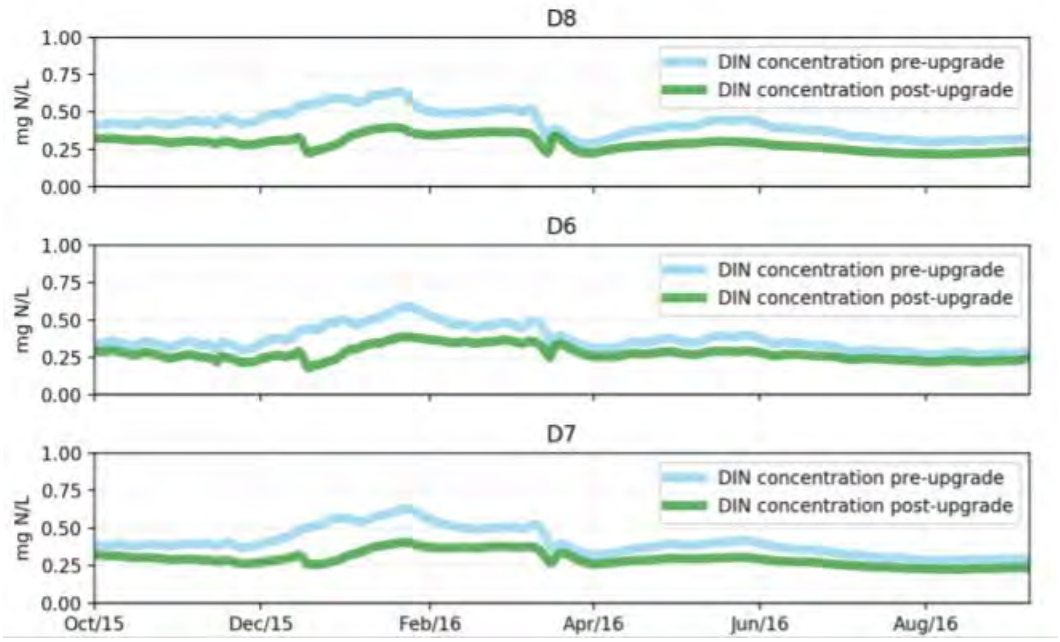


Figure 7. DIN concentrations along a transect from east (D8) to west (D6) and upper (D7) in Suisun Bay before and after Regional San upgrade

Besides showing the potential of the Regional San upgrade to substantially reduce DIN concentrations within Suisun Bay, the upgrade will also substantially decrease loads to Suisun Bay and other embayments downstream. While Suisun Bay and San Pablo Bay are the San Francisco Bay embayments most heavily influenced by Delta loads, the Delta also acts as a major contributor to DIN levels year-round in Central Bay (SFEI #3 discussed above), and can also contribute to wintertime DIN levels in South Bay. While the Delta's DIN influence in Central Bay extends through the summer, the bulk of its contribution to summer-time DIN concentrations is delivered during high-flow months and slow flushes via exchange with the coastal ocean.

3.4 SFEI #6 Multi-scale Trend Analysis of Water Quality Using Error Propagation of Generalized Additive Models

3.4.1 Background

Generalized additive models (GAM) are tools that allow for representation of nonlinear data. They are widely used in estuarine monitoring programs—a google search use of GAMs in estuaries yielded 7.7 million results, mostly since 2000. GAMs are commonly used to track estuarine trends (e.g., Chesapeake and Tampa Bays) to show progress or ongoing problems.

Bay managers need a simple tool to help them answer the question "Are things betting better or worse?" Either answer would require managers to do something or evaluate an action that has already been done. The conventional approaches for analysis of long-term monitoring data, which are often beset with missing time series observations or irregular sampling, generally require non-parametric approaches (e.g., seasonal Kendall tests) that only assess the direction and significance of comparisons across years and do not account for full propagation of uncertainty inherent in raw observations if the raw data are aggregated to meet test requirements. Aggregation of raw data, (e.g., averaging of observations within a year or season to comply with the requirements of Kendall tests), risks loss of information by removing variation between observations at smaller time scales. The logical outcome is increased risk of incorrect conclusions from test results. The GAM process improves the statistical power to detect trends and is visually compelling to managers by "smoothing" messy natural data to a GAM signal from which seasonal averages or significant trends can be more easily observed and checked for statistical significance (Figure 8).

The SFEI team used GAMs to extract uncertainty measures for the seasonal estimates, and then used the uncertainty measures with mixed-effects meta-analysis regression to quantify inter-annual trends that account for full propagation of error across methods. They demonstrated that nearly identical descriptions of temporal changes can be obtained using different smoothing spline formulations of the original time series, extracting seasonal averages and their standard errors for a decadal time period within each year. Finally, they modeled how across-year trends in seasonal averages combined with mixed-effects meta-analysis regressions that propagated uncertainties from the GAM fit to the across-year analysis.

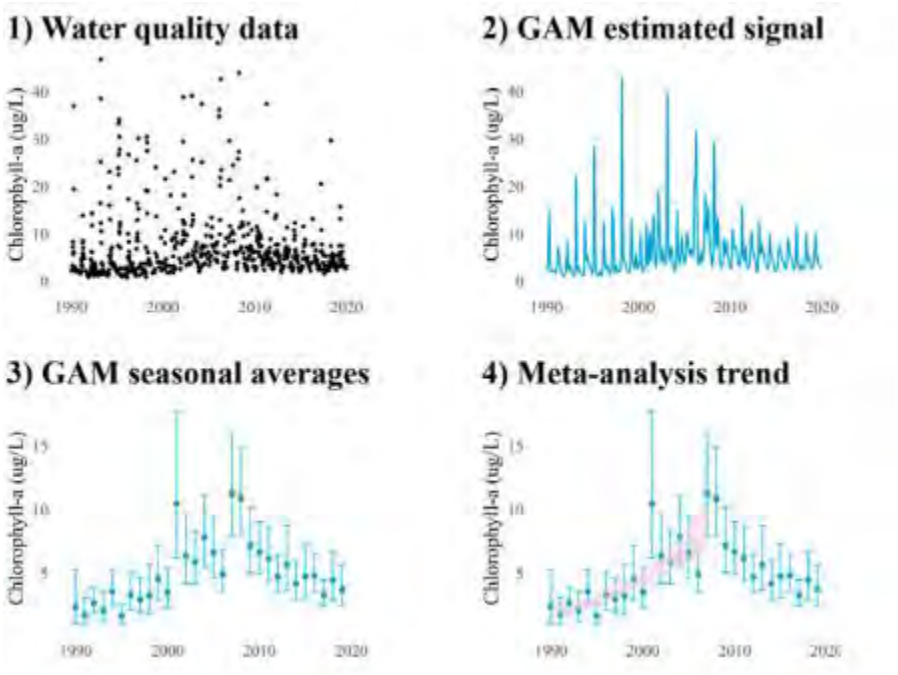


Figure 8. Viewing 30 years of Bay chlorophyll data using various GAM tools.

3.4.2 GAMS findings for 30 years of Bay Chlorophyll Data

The power of GAMS is partially illustrated in Figure 9, which presents the data across the USGS gradient of stations for the spring and fall seasons. The model outputs showed

- An increase in chlorophyll from 1990 until 2005–2010, followed by decreasing chlorophyll until the end of the record in 2019.
- A spring chlorophyll peak, particularly at southern stations.
- A fall chlorophyll peak that was smaller than the spring peak.

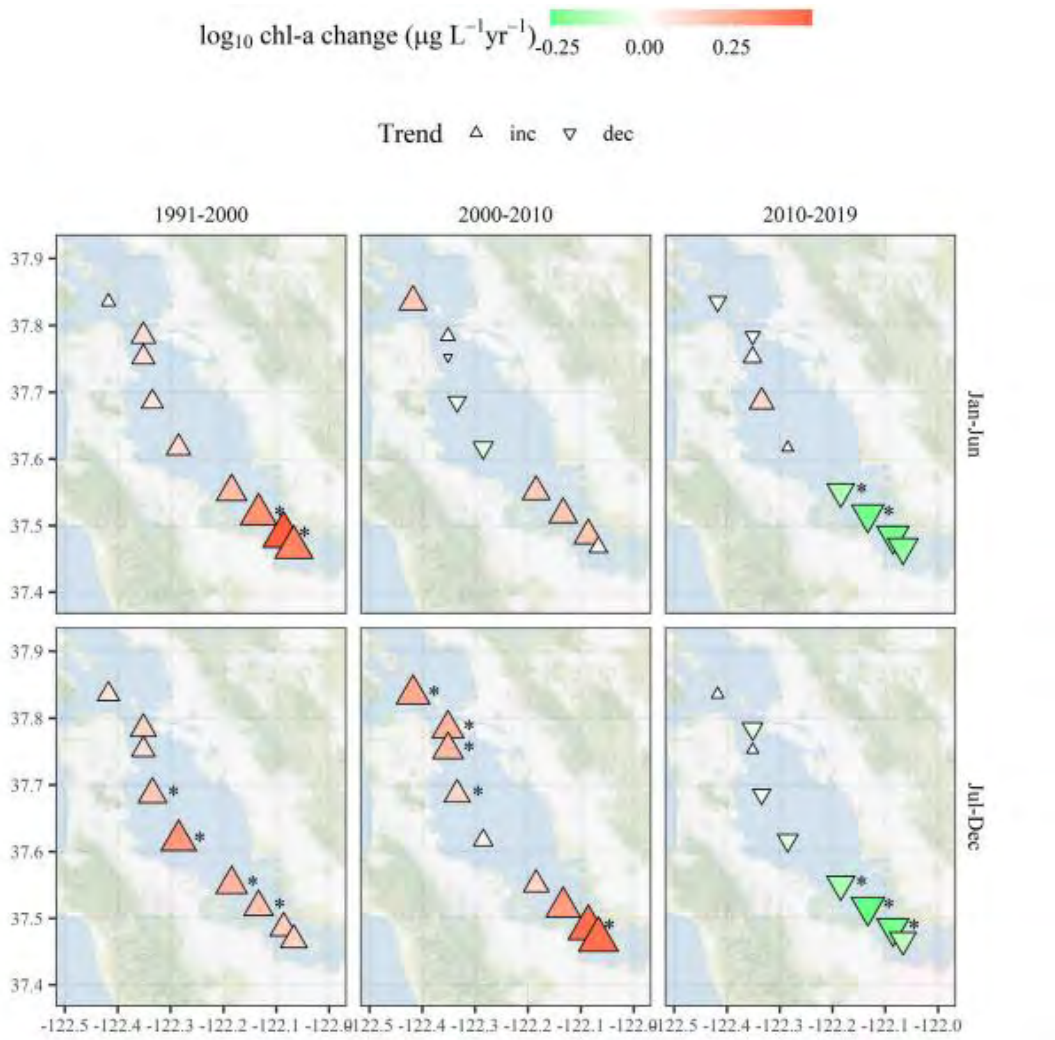


Figure 9. Interannual trend estimates of seasonal averages by decade for chlorophyll at each station. Point type and color represent the direction and magnitude of an estimated trend as the log10 slope for chlorophyll concentration per year. Trends with p < 0.05 are marked with an asterisk.

3.4.2 Implications for Bay Nutrient Management

There can be a conflict between the needs of improving the statistical basis of trend analysis versus the needs of sampling necessary to improve the capacity of the water quality models. For instance, trend analysis would prefer maintaining existing sampling programs developed more than 30 years ago, while the early modeling outcomes are indicating that sampling locations and intensity do not capture some major processes in the Bay. For BACWA, the importance of the most accurate model predictions of the impacts of load modifications would seem to be paramount.

In addition, estimation of GAMs for very long time series can be computationally demanding, as are detailed runs of various modeling scenarios. Again, the importance to BACWA of understanding differing modeling management scenarios could be a better use of funding.

3.5 SFEI #7 Modeling the Dispersal of San Francisco Bay Plume over the Northern and Central California Shelf

SFEI funded a team from UCSC and UCLA to study the dispersal of the San Francisco Bay plume over the northern central California shelf and the adjacent ocean during the period of 2011–2012. Regional Ocean Modeling System (ROMS) simulations were used to examine the long-term average and temporal variability of the plume dispersal pathways relevant to local biogeochemical processes.

3.5.1 ROMS Model reliability

In general, the ROMS model has been used extensively in US coastal waters and is well-regarded. Southern California dischargers have expressed some concern about the use of the ROMS model to predict HABs in the Southern California Bight. The modeling team concluded "that the model captures the bulk dynamics of surface currents and state variables, and that the model is valid for the statistical long-term average simulation of bay water spreading in ocean water off the central California coast." Indeed, the modeled sea-surface height, surface currents, sea-surface temperature, and vertical-density stratification were quite similar to corresponding observations. Although there were discrepancies between the model and the data, the model-data comparisons for various fields showed good overall representation of features of the nearshore velocity, temperature, and sea level structure. The model was less effective in shorter-term predictions than in its predictions for two-year means. The worse performance for "event-scale" predictions would lower confidence in the predictions of algal blooms.

3.5.2 San Francisco Bay Plume Dispersal

After entering the ocean through the Golden Gate, Bay water is dispersed across the shelf in three ways (Figure 10):

- Along the southern coast towards the Monterey Bay.
- Along the northern coast towards Point Arena.
- Along an offshore pathway restricted within the shelf break.

The along-shore zone of impact of the northward-dispersed plume is about 1.5 times longer than that of the southern branch. Due to the opposite surface Ekman transport induced by the northerly or southerly winds, the southern branch of plume occupies a broad cross-shore extent, roughly twice as wide as the northern branch, which extends roughly two times deeper due to coastal downwelling. The plume dispersal shows considerable temporal variability in response to various forcings, including net Bay-water discharge, wind field, and remotely forced surface current. The southward pathway accounts for a larger portion of the total amount of plume dispersal despite the fact that it dominated less frequently than the northward pathway during the two-year period. The mean water age ranges from 0–50 days within the Gulf of Farallones and it can take as long as 50 days for waters passing through the Golden Gate contact to be flushed away from the region. This residence time could raise a regulatorily significant issue of Bay discharge reaching the Gulf of the Farallones, Cordell Bank, or Monterey Bay marine sanctuaries and may be relevant to future general permit sign-off by NOAA.

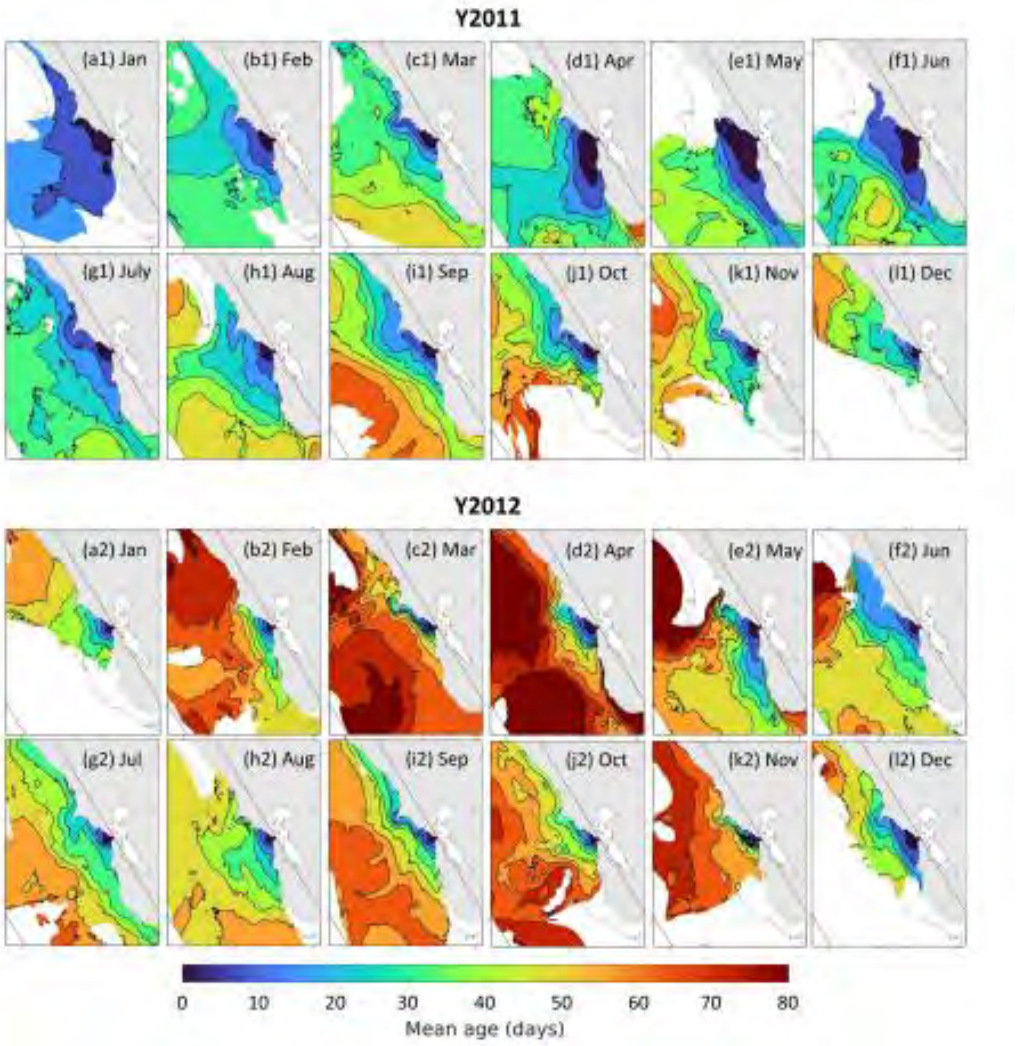


Figure 10. Monthly-mean, vertically integrated passive tracer concentration during the period of 2011–2012.

3.6 SFEI #9 "Test-Drive" of San Francisco Bay Assessment Framework 1.0

3.6.1 Assessment Framework 1.0 Status

Since the Assessment Process Framework 1.0 was developed for the Bay, its methodology has been published in a reputable journal. The framework uses chlorophyll measurements as surrogates for predicting problems with DO and HABs. For both predictions, chlorophyll concentrations in space and time are used to describe ecosystem quality on a five-part scale from "very high" to "very low." Most BACWA critiques of the framework have been focused on the HAB predictions, particularly since the HAB data were much less extensive and there were not many national comparisons.

3.6.2 Assessment Framework Results for Dissolved Oxygen

Only the South Bay and Lower South Bay have sufficient concern about DO levels to warrant using the framework. The classification system was based on average spring/summer chlorophyll concentrations that could lead to low summer DO minima in the bottom waters. Chlorophyll thresholds (mean and 95% confidence intervals), associated with achieving reductions in DO values 50% (tau = 0.5) and 90% (tau = 0.1) of the time were extracted from those analyses (Table 1).

Table 1. Chlorophyll-a classification table based on risk of falling below DO water quality objectives and on annual February-September mean chlorophyll-a for South Bay and Lower South Bay.

Classification of ecological condition based on mean February - September chlorophyll-a (mg m^{-3}) linked to DO benchmarks				
Category	tau = 0.5		tau = 0.1 (more conservative)	
	Lower South Bay	South Bay	Lower South Bay	South Bay
Very high	≤23	≤14	≤5	<13
High		>25 - 32		>13-22
Moderate	>23 - 35	>32 - 44	>5-15	>22-30
Low	>35 - 51	>44- 58	>15-30	>30-40
Very Low	>51	>58	>30-40	>40-56

There are many examples of using chlorophyll to trigger regulatory action. In general, other estuaries in the US assume eutrophication problems at much lower chlorophyll concentrations than used for San Francisco Bay, e.g., the Chesapeake at 15 mg/m^3 for seagrass inhibition and North Carolina at 40 mg/m^3 in 10% of the samples. These differences probably are driven by the high suspended sediment concentrations in San Francisco Bay, which protect it from eutrophication.

Using the less conservative chlorophyll measure, only one year (1998) showed high enough chlorophyll concentrations in Lower South Bay to indicate very low water quality. Figure 11 presents the data using the more conservative standard, and it shows that water quality in the last couple decades mostly registers low to moderate water quality. Interestingly, this temporal trend does not fully align with the GAMS trends discussed above in SFEI #6, but that could be due to the difference in the framing of the 10-year temporal averaging used by GAMS.

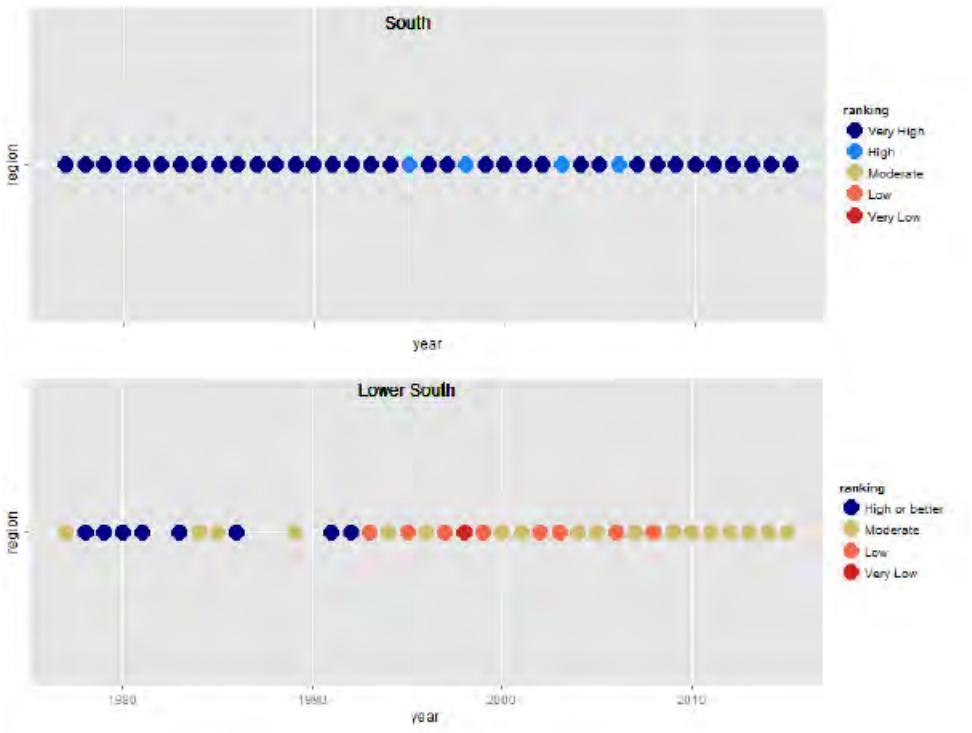


Figure 11. Test drive of classification system with a more conservative threshold (lower 95 percentile) for chlorophyll-a linked to dissolved oxygen for South Bay and Lower South Bay from 1977-2015. Condition for each year is indicated by the color of the dot. Missing years are the result of insufficient measurements in the sub-embayment during this time.

3.6.3 Assessment Framework Results for Harmful Algal Blooms

Similar to DO, a HAB-related classification scheme was developed based on chlorophyll concentrations and used quantile regressions of sub-embayment monthly-mean surface chlorophyll and monthly-mean HABs. Unlike the DO classification scheme based on a growing season average, the HAB assessment was based on monthly HABs measurements, with more monthly adverse measurements reducing the water quality ranking. Despite this more stringent ranking system (Figure 12), conditions from Suisun to Central Bay tended to be high or very high, with some occurrences of moderate condition. Under the HAB ranking, conditions in the South Bay were markedly worse, with a moderate HAB quality ranking 13 out of 39 years. Lower South Bay ranked high or very high only about half the time (17 of 35 years), and moderate most of the remaining years (15 years), especially between 1993–2008. There were two years when the Lower South Bay condition was low (2003, 2013) and it was very low in 1998, the same year that the chlorophyll-DO ranking was very low.

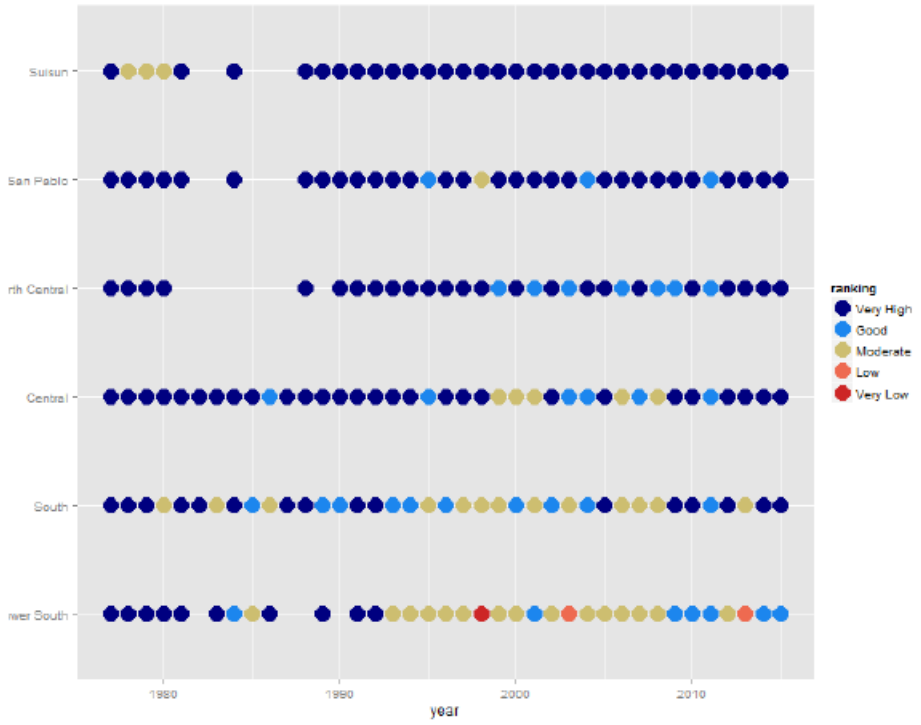


Figure 12. Test drive of classification system for chlorophyll-a linked to HABs for all SFB sub-embayments from 1977-2015. Condition for each year is indicated by the color of the dot. Missing years are the result of insufficient measurements in the sub-embayment during this time period.

3.6.2 Considerations for Future Assessment Frameworks

Given the development of the GAMS process since the first Assessment Framework, it would be possible to combine the two approaches. On the other hand, the extensive amount of real-time DO and HAB data makes the benefit of using a chlorophyll surrogate less compelling.

BACWA MEETING NOTES
BACWA ANNUAL TECHNICAL SEMINAR – NUTRIENTS DISCUSSION WITH REGIONAL WATER BOARD
October 29, 2021

Theme and Topic	Summary of Discussion
Nutrients Science needs to inform 3rd Watershed Permit (WSP) Discussion of Water Board's approach to address science gaps •Discussion with Science manager of science timeline •Projects to complete prior to WSP 3.0 •Long term science program	• The Regional Water Board intends to reissue the 3rd Watershed permit on time, and sees no benefit in extending the term of the 2nd Watershed Permit. • Dave Senn provided an update on the NMS science plan. Funding for the science plan has been mostly from BACWA, and additional external funding has been less than originally expected. At-risk program areas include Lower South Bay (LSB) biogeochemistry and metabolism, coastal ocean effects, future scenarios, and overall monitoring. As a result of funding gaps, there is a lag in the amount of work completed compared to the plan. • Even though the LSB geochemistry and metabolism work is not completed, a mechanistic understanding of LSB is not necessary for the Assessment Framework 2.0 to be completed. • Dave Senn explained that if load reductions were to be required, this would require high confidence (i.e., a finding of "reasonable potential" in the NPDES permitting framework). Similarly, if loads were allowed to increase unchecked, this would also require high confidence (i.e., a finding of "no reasonable potential"). Since the science work is behind schedule, we do not have high confidence about whether load reductions are required or not. The load caps in the 3rd watershed permit are likely to reflect this uncertainty. • The Model Advisory Group will convene to provide input on the question of how good the model needs to be to use it for regulatory purposes. • The Assessment Framework does not include coastal ocean impacts, and coastal ocean monitoring is not part of the monitoring plan. However, the NMS recently signed a letter of support for OPC funding of a mooring outside the Golden Gate to be operated by SFSU, because this data is helpful for NMS modeling. Dave Senn will share a memo about the importance of this mooring with the group. • The group discussed that it will be important for the science work (data and modeling) to characterize how much nutrient load is exported out of the Bay to the coastal ocean. • The group discussed that it would be strategic to work with the South Bay Salt Pond restoration project to pursue external funding of LSB science work.
Status of NBS Study (Ian Wren, SFEI) from 2nd Watershed Permit	Ian Wren updated the group on the Nature-Based Solutions (NBS) study. The project team is currently completing Phase 2 site-specific evaluations of 7-10 facilities. The team is exploring whether wet weather facilities at plants (e.g., storage ponds) could be re-purposed to provide wetland treatment while retaining a

Theme and Topic	Summary of Discussion
	wet weather storage function. Ian noted that certain types of nature-based solutions provide climate resiliency in addition to nutrient removal. Regional Water Board staff noted that the forthcoming Tentative Order NPDES permit for San Leandro will capture some of the NPDES permitting concepts that could be applied to wetlands treatment systems. The group discussed that NBS systems take a significant amount of time and energy to plan. "Normalizing" NBS projects and establishing clear permitting expectations will help these projects succeed. Regional Water Board staff noted that they can engage with climate-vulnerable entities and bring groups such as FEMA and the Army Corps of Engineers to the discussion table.
Group Annual Report and Status of Recycled Water Report from 2nd Watershed Permit (Mike Falk, HDR)	Mike Falk provided an update on the Regional Recycled Water evaluation. The consultant team is in the middle of preparing draft individual agency reports. Regional Water Board staff noted that it would be helpful for the report to identify the barriers to large-scale potable reuse, given that such projects are not currently being planned by most agencies. Mike Falk also reminded the group about the findings of the 2020 Group Annual Report.
3rd watershed Permit - Discussion of proposed BACWA key tenets Understanding of Water Board and BACWA positions on key issues, including: •Compliance phasing and timelines •Supporting organics diversion •Subembayment designation	• **Buffers.** Regional Water Board staff noted that they are willing to provide a buffer for nutrient load caps in the 3rd Watershed Permit, provided this approach does not disincentivize load reductions. • **One-bay approach.** The benefits of a regional load cap are that it (a) defers the need for a water quality standards action, (b) keeps the convened parties working together on a regional goal, and (c) prevents water quality impairment. Subembayments are still an important consideration for the science work, and subembayment-based load caps could be used in the future when scientifically justified. • **Organic material diversion.** The Regional Water Board would support a load cap that allows diversion of organic material to wastewater treatment plants, with details to be worked out in the next 2 years. On a technical level, BACWA would need to establish what the potential is for organics diversion projects to increase TIN loads. • **Action Plans**. The Regional Water Board would support action plans triggered by exceedance of individual load caps as an acceptable part of progressive enforcement. The consequences may differ based on agency size – for example, it may be of no consequence for small agencies to exceed their individual load caps, while larger agencies may need to take action. Equity considerations are important, as well. The permit would not be specific about what is required as an "action" but exceeding individual load caps would trigger a conversation with the Regional Water Board. • There is considerable uncertainty about the impacts of the South Bay Salt Ponds (SBSP) on Dissolved Oxygen in the LSB, which will need to be better-characterized before it is appropriate to require load reductions in the LSB.

Planning Subcommittee Meeting No. 61
October 6, 2021
9:00 am – 12:00 pm
Teleconference
Chair: Eric Dunlavey
Meeting Notes

Attendees: Tom Mumley, Dave Senn, Eric Dunlavey, Lisa Hunt, Ian Wren, Robert Schlipf, Richard Looker, Lorien Fono, Ariella Chelsky.

1. *Agenda Modifications*

None.

There was a preliminary discussion about salt pond management, and what kind of data have been gathered to date. Maximizing flow through the pond is the key to maintaining high quality of the water, but attention needs to be paid to the integrity of the levees. Since the Water Board is thinking broadly about LSB management, we may want consider deploying sensors in the ponds. This may be a good candidate project for grant funding. There will be a SBSPRP meeting in October.

2. *Review Outstanding 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 – 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*

Staffing – Lisa has been leading job announcement/recruitment for two positions to replace Derek, one new/already planned. The field and monitoring team has been continuing to make progress. The modeling team has been making steady progress, but has been working at 50 to 75% capacity due to personal/health issues. Lisa urged the group to spread the word on their recruitments.

Recent updates - Dave gave an update on the progress on FY22 projects:

- Ship based monitoring –The Water Science Center in Sacramento is managing the collaboration with USGS. There are 3- and 6- month milestones to identify priorities for new work to be added to the program, and how to fund it, whether via the NMS or grant funding. There also needs to be an understanding about how staff and equipment are deployed. USGS did reduce cruises this year, but did not return unused funds to the NMS.

- Mooring – moving ahead well, but would need new staffing for expansion.

- Modeling – Will discuss source apportionment work at a future meeting. Just received clam data from 2013 through 2019. They will focus on a model update report for Dec/Jan with the intention of informing the modeling advisory group. Derek's last day is tomorrow, but he will be giving a presentation at next week's RMP Annual Meeting.

4. Priority Updates

Report-outs - none

NMS Calendar Review – Next NMS meeting is scheduled for November 5.

5. Other Updates

Model advisory group – The group recommended having exploratory conversation with three potential chairs. The candidates are Mindy Roberts, Craig Jones, and Martha Sutula. All three are potentially interested in serving on the Modeling Advisory group, and as chair if asked. We're potentially considering Phil Trowbridge as well. For the sake of maximizing the breadth of expertise, we could consider having cochairs. There was a discussion about level of effort related to having a stakeholder subcommittee oversee the group. Lisa will send out a doodle to choose a date for a future planning meeting.

Program Summary Review - Dave developed a FY21 Review of Science activities. There are two pages on the NMS process, followed by project updates in specific program areas. A table includes the science area focus, program area, and subembayment impact of each of the projects. There was a discussion about the level of detail in the document and the audience. There was a state of the science document produced a few years back that gave a really high overview of the NMS program. Eric and Lorien will develop an outline for a 2-3 status update/state of the science document that can be used to inform upper level managers and governing boards who need an overview of how the funds are being spent.

Assessment Framework Next Steps
The assessment framework meeting will be rescheduled. Martha Sutula has been brought onboard to advise due to her recent experience with Suisun Marsh and Elkhorn slough. The next steps are development of an Assessment Framework workplan, aiming for December. An expert workgroup will be convened for the work in the Deep Subtidal channel. For the LSB work, the VPA workplan is being developed by TetraTech, the metabolic index work is ongoing with collaboration with the fish abundance work, and for fish abundance data is being conducted by Levi Lewis, with monitoring taking place this summer to capture times with low oxygen and high temperatures. Eric noted that the current contract with UC Davis by the City of San Jose is coming to an end, so a final report with be forthcoming. This will include some work looking at salt pond management.

WB Basin Planning decisions
Lorien asked about the impact of this decision on the Triennial review. Richard responded that the staff would be allocated to support the NMS regardless of whether the project ended up in the NMS.

Lorien described BACWA's remaining level of funding for the third watershed permit and whether we still want an extension. What would be the timing of the third watershed permit and what are the science needs to get us between now and the third watershed permit. Tom responded that we should have an assessment framework in place. Dave commented that the permit extension was discussed with the understanding that we'd have the answers needed to develop the appropriate load caps, but if that's not the case, we should assess the updated goals.

Since there are no data that are specific to the margins, they are still being treated the same as the open bay, and are being evaluated by the deep subtidal assessment framework. For the south bay sloughs, the watershed permit would not include coverage for the SBRPRP but could recognize that effort. A basin planning effort can include multiple entities, so we'll need to figure out how to incorporate parallel efforts in the absence of the basin plan.

6. *Action items:*

- Eric and Lorien to develop an outline of a status update/state of the science document for discussion at the November meeting.
- Water Board to identify necessary milestones for science program prior to adoption of 3rd Watershed Permit.
- Members to collaborate on developing an NMS status document/fact sheet that pulls together planning, permitting, and science by 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

Planning Subcommittee Meeting No. 62
November 5, 2021
9:00 am – 12:00 pm
Teleconference
Chair: Ian Wren
Meeting Notes

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

1. *Agenda Modifications*

   There was a request to add items to discuss a 3-page state of the science update, to change the annual steering committee schedule, and to discuss new steering committee members.

2. *Review Outstanding Action items*

   - Eric and Lorien to develop an outline of a status update/state of the science document for discussion at the November meeting. - complete
   - Water Board to identify necessary milestones for science program prior to adoption of 3rd Watershed Permit. - complete
   - Members to collaborate on developing an NMS status document/fact sheet that pulls together planning, permitting, and science by early 2022. - ongoing

3. Program update

Staffing – Lisa announced there were some very good candidates for the environmental science position. They are reconsidering how to recruit an associate environmental scientist. They expect to be hiring in the spring to replace current staff who plan to leave for graduate school. There needs to be a long term consideration of program capacity and funding level when deciding on staffing levels and to inform communication during recruiting.

Recent updates - Dave gave an update on the progress on FY22 projects:

Field studies – the team is wrapping up their field measurements. Ari's team is planning next steps. There's funding remaining to wrap up the existing work but not to expand its scope. If the PSC agrees to continue to retain and fund a postdoc, then that decision will go to the steering committee in December. Dave will develop a list of alternatives and a recommendation prior to the next PSC meeting.

Monitoring: Ship-based and Mooring – no updates.

Shoal mapping - 6 surveys have been completed this year. We need to make a decision about whether to continue and fund this work in spring 2022. Dave and Lisa will develop a proposal for the PSC to consider in December. This would cost $15K

per excursion, not including SFEI staff time. This work needs to be considered as part of the big picture of what we need to close out the 2nd watershed permit, and data needs to support the assessment framework. There was a discussion about the relative importance of the modeling and modeling work moving forward into the 3rd Watershed Permit. Tom noted that the modeling work brings value to other aspects of the RMP and should be funded accordingly into the future.

Modeling – The team just wrapped up a report on modeling in the Delta and Suisun Bay. Establishment of a modeling advisory group will be a major focus over the next few months.

4. *Priority Updates*

Report-outs – At the NBS workshop this week, EPA staff were not optimistic about federal funds becoming available for our programs.

NMS Calendar Review – Next PSC meeting is scheduled for December 1, and next Steering Committee meeting is December 10

5. *Other Updates*

Data collection in Bay margins, including mussel toxins – Bill Cochlan (SF State) is shutting down his lab's program, and will analyze the samples through the end of 2021, but not thereafter. An alternative lab and substitution of SFEI labor will cost more than budgeted, so Dave was seeking feedback on whether to continue monitoring nutrients in the margins. There was a discussion about defining the area of interest in the shallow areas of the South Bay and determining how they're different from the deep subtidal areas or the perimeter. Information about these areas in summarized in "Water Quality in San Francisco Bay Perimeters (2018-2020)". Dave will develop more information about this topic to share in advance of the Dec 1 meeting.

Delta/Suisun modeling work – The funds contributed previously from Central San to do modeling work on Suisun Bay was added to the NMS funding pot, and future work will make use of that contribution.

Timing of Science Plan approvals & SC membership – We will need to revisit this in December, because we would like to have projects for the subsequent fiscal year approved more than a month in advance of the projects needing to begin. There was a discussion about meeting timing, length, and level of detail necessary to bring to the Steering Committee.

There are some empty SC seats, such as the Delta Stewardship position. We need to recruit a member who is connected to funding sources. If there has just been a change in staffing at an agency, does the steering committee need to formally approve a new member? Tom stated that the Water Board has the authority to unilaterally recognize new members, but it should be formally noticed during the next meeting.

Modeling Advisory Group - The planning subcommittee recommending that Martha Sutula be recruited as MAG chair. She agreed to this request and has met with SFEI staff to plan. The

first meeting is targeted for February 2022. In the next few weeks, they will identify the remaining members of the MAG and notify the planning group via email. They will also develop a draft list of charge questions for the MAG, and will send it to the planning group in late November.

State of the Science Document – BACWA developed an outline for a 3-page State of the Science summary. The group agreed that this is a useful tool for public education. Ian will take a first stab at developing the document.

Estuary Blueprint - The Estuary Blueprint team has asked that we reformat our proposed actions to reflect their priorities. Ian will take a lead on this work.

6. *Action items:*

- Dave to provide more information and develop a menu of alternatives on 1) continuing support for a postdoc to participate in field studies; 2) on whether to continue shoal mapping cruises; and 3) on whether to continue to collect nutrient data in the shallow areas of the South Bay to replace work previously done in the Cochlan lab. Recommendations will relate the value of each of these efforts to their use in the assessment framework, and will be discussed with the PSC at the Dec 1 meeting.
- SFEI team will develop memo on Steering Committee meeting schedule and approval timing versus project planning.
- Tom will invite Mike Chotkowski from USGS to Steering Committee.
- Ian to work with Dave and Lisa to develop text for 3-page State of the Science document based on the outline provided by BACWA.
- Ian will revise Estuary Blueprint to new format.
- (Ongoing) Members to collaborate on developing an NMS status document/fact sheet that pulls together planning, permitting, and science by 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

November 15, 2021

Robert Schlipf
San Francisco Bay Regional Water Quality Control Board
1515 Clay Street, Suite 1400
Oakland, CA 94612

VIA EMAIL: Robert.Schlipf@waterboards.ca.gov

Subject: Comments on Tentative Order Amending Monitoring & Reporting Requirements for Municipal Wastewater Dischargers and Supporting the San Francisco Bay Regional Monitoring Program's Studies for Constituents of Emerging Concern (CECs)

Dear Robert Schlipf:

The Bay Area Clean Water Agencies (BACWA) appreciate the opportunity to provide comments on the San Francisco Bay Regional Water Quality Control Board's (Regional Water Board's) Tentative Order amending Monitoring and Reporting Requirements for Municipal Wastewater Dischargers and amending the 2016 Alternate Monitoring and Reporting Program for Municipal Wastewater Dischargers (Order No. R2-2016-0008, "2016 Order").

BACWA is a joint powers agency whose members own and operate publicly-owned treatment works and sanitary sewer systems that collectively provide sanitary services to over 7.1 million people in the nine-county San Francisco Bay Area. BACWA members are public agencies, governed by elected officials and managed by professionals who protect the environment and public health. BACWA closely collaborated with Regional Water Board staff during development of the Tentative Order, and recommends its adoption.

BACWA strongly supports the concept captured by the Tentative Order of continuing to reallocate resources from low-value effluent testing to the Regional Monitoring Program (RMP), a concept first captured in the 2016 Order. BACWA also supports modification of the 2016 Order to include reduced monitoring of influent and biosolids. The RMP has faced funding challenges in recent years, and the Tentative Order will provide the RMP additional support to address important questions about water quality in the San Francisco Bay, which will in turn inform policy decisions. BACWA has several minor comments on the Tentative Order, as outlined below.

1. Revise cost estimates in the Fact Sheet to correct tabulation errors.

BACWA's May 2021 *Proposed Evolution of the 2016 Alternate Monitoring & Reporting Program to Add Support to the Regional Monitoring Program*, cited in the Tentative Order, incorporated incorrect information about baseline monitoring frequencies for influent mercury,

effluent mercury, and biosolids organics, as follows:

- For influent mercury, several agencies were assumed to perform monthly influent monitoring for mercury, when the actual required frequency in some individual NPDES permits is once per year or less. These agencies are identified in the markup below. Most of the agencies perform monitoring more frequently than is required, but only the required (not the actual) monitoring frequency was used to revise the cost estimates.
- For effluent mercury, four dischargers with dry season discharge prohibition (Las Gallinas Valley Sanitary District, Calistoga, St. Helena, and Yountville) were erroneously assumed to sample more frequently than is actually required. Sampling is not required when there is no discharge during the dry season.
- For biosolids, the City of Petaluma's July 2021 permit was updated with new monitoring requirements after BACWA's original cost estimate was prepared in May 2021.

As a result of BACWA's errors, the cost estimate in the Fact Sheet of the Tentative Order also requires a slight correction. Although the total estimated cost savings are slightly reduced, the cost savings (estimated to be between $228,000/year and $368,000/year) continue to be the same order of magnitude as the planned contribution to CECs special studies ($320,00/year). The wide range is attributable to savings from chronic toxicity species screening studies, which are unlikely to be attained for several years after the Statewide Toxicity Provisions go into effect. The new provisions will trigger screening studies by many dischargers, as noted in Section 3.1 of the Fact Sheet (page F-5 of the Tentative Order).

The requested changes are shown below. BACWA will update the May 2021 report to reflect these changes and will provide a copy to Regional Water Board staff for reference.

[Pages F-6 to F-8]

3.4 Mercury and PCBs. … Based on the median laboratory costs in the ~~The~~ BACWA Report ~~estimates that~~, the collective cost savings from reducing effluent mercury monitoring to once per quarter for major dischargers and twice per year for minor dischargers would be about ~~$126,000~~ $123,000 per year ~~based on the median laboratory cost~~.

[Pages F-8 to F-9]

3.5.2 Influent Mercury. This Order establishes a consistent influent monitoring frequency for mercury of once per quarter for dischargers with pretreatment programs listed in Table 1 of the Order. This will reduce the monitoring frequency for most of these dischargers because most currently monitor once per month. However, it would increase the required monitoring frequency for the East Bay Dischargers Authority, City of Livermore, Dublin San Ramon Services District, City of Millbrae, Cities of South San Francisco and San Bruno, City of Burlingame and Delta Diablo.

…

Based on the median laboratory costs in the ~~The~~ BACWA Report ~~estimates that~~, the collective cost savings from reducing influent mercury monitoring to

once per quarter would be about ~~$13,000~~ $6,000 per year ~~based on the median laboratory cost~~.

[Page F-11]

3.5.4. Biosolids. … Based on the median laboratory costs in the BACWA Report, the estimated collective cost savings from reducing biosolids VOCs and BNAs monitoring would be about ~~$7,000~~ $8,000 per year.

3.6 Summary of Cost Savings. This Order proposes monitoring frequency reductions that would collectively save dischargers about ~~$237,000~~ $228,000 per year based on median laboratory costs and up ~~$377,000~~ $368,000 per year cost savings from chronic toxicity screenings are realized. The table below summarizes these savings:

Table F-4. Cost Savings from Reduced Monitoring

Parameter	Median Savings
Dioxin-TEQ	$40,000
Effluent VOCs and BNAs	$26,000
PCBs (as aroclors)	$13,000
Effluent Mercury	~~$126,000~~ $123,000
Influent Mercury	~~$13,000~~ $6,000
Influent VOCs and BNAs	$12,000
Biosolids VOCs and BNAs	~~$7,000~~ $8,000
Subtotal	**~~$237,000~~ $228,000**
Chronic Toxicity Screening	$140,000
Total	**~~$377,000~~ $368,000**

2. Correct minor typographical errors.

BACWA requests correction of the minor typographical errors shown below. The City of Pacifica is not subject to the order and should be removed from Table F-1.

[Page 1 – Title of Tentative Order]

AMENDMENT OF MONITORING AND REPORTING REQUIREMENTS
FOR MUNICIPAL WASTEWATER DISCHARGERS AND
AMENDMENT OF ALTERNATE MONITORING AND REPORTING PROGRAM
FOR MUNICIPAL WASTEWATER DISCHARGERS
FOR THE PURPOSE OF SUPPORTING THE
SAN FRANCISCO BAY REGIONAL MONITORING PROGRAM

[Page F-1]

Table F-1. Facility Information

Discharger	Facility Contact	Mailing Address	Effluent Description	Facility Design Flow (MGD)
⋮				
~~Pacifica, City of~~	~~Louis Sun, Wastewater Operation Manager, (650) 735-4662~~	~~170 Santa Maria Avenue Pacifica, CA 94044~~	~~Advanced Secondary~~	~~4.0~~
⋮				
St. Helena, City of	Mark Rincón-Ibarra ~~Clayton Church~~, ~~Acting~~ Public Works Director, (707) 312-1208	1572 Railroad Avenue St. Helena, CA 94574	Secondary	0.50
Vallejo Flood and Wastewater District	Jennifer Harrington, Environmental Services Director, ~~(707) 644-7806~~ 707-652-7806	450 Ryder Street Vallejo, CA 94590	Secondary	15.5
⋮				

BACWA appreciates the opportunity to comment on this Tentative Order and thanks you for considering our concerns.

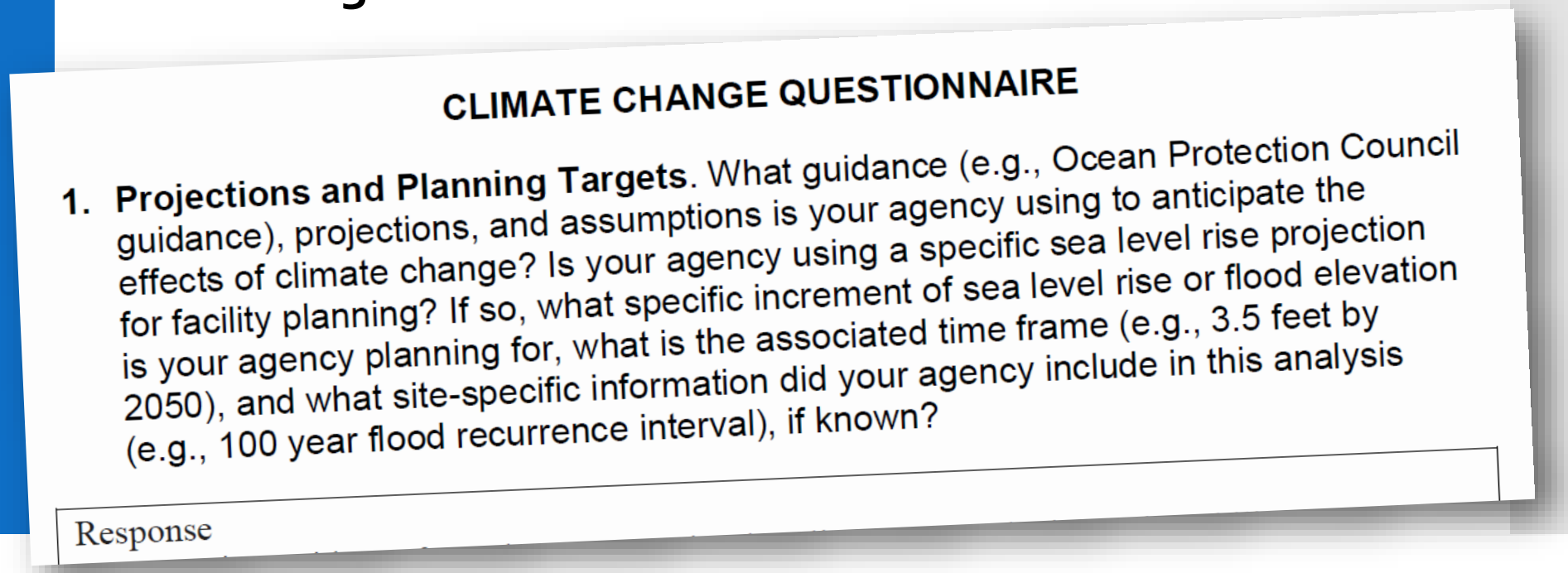
Respectfully Submitted,

Lorien Fono, Ph.D., P.E.
Executive Director
Bay Area Clean Water Agencies

cc: BACWA Executive Board
Chris Dembiczak, BACWA Permits Committee Chair
Michael Dunning, BACWA Pretreatment Committee Chair
Nicole Van Aken, BACWA Laboratory Committee Chair

Item #11. Summary of Sea Level Rise Projections *from* Climate Change Questionnaire

- **Regional Water Board Questionnaire to POTWs, conducted from April – September 2021**
- **45 responses from BACWA Member Agencies**
- **Caveat – this summary simplifies the approach(es) used by some agencies**



CLIMATE CHANGE QUESTIONNAIRE

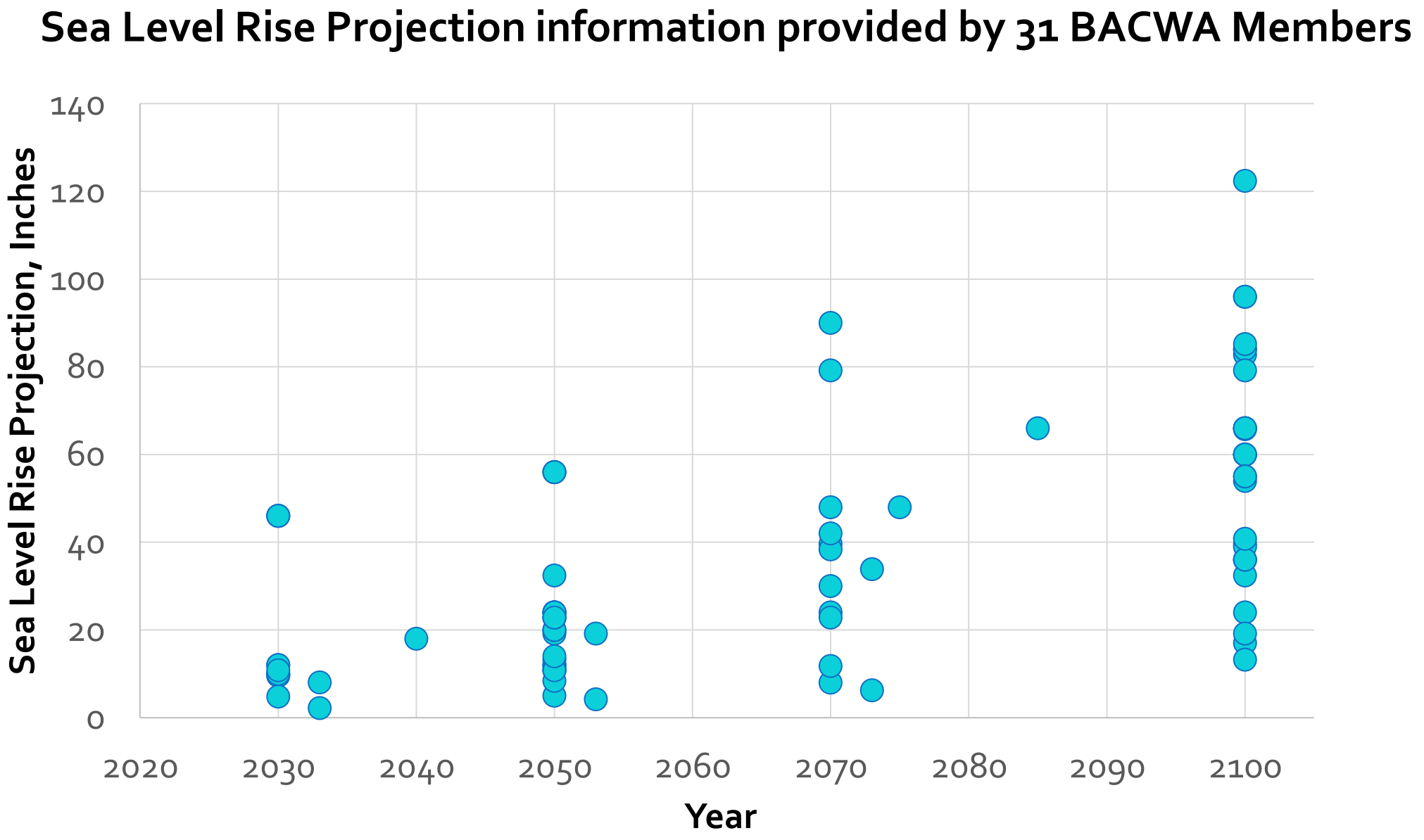
1. **Projections and Planning Targets**. What guidance (e.g., Ocean Protection Council guidance), projections, and assumptions is your agency using to anticipate the effects of climate change? Is your agency using a specific sea level rise projection for facility planning? If so, what specific increment of sea level rise or flood elevation is your agency planning for, what is the associated time frame (e.g., 3.5 feet by 2050), and what site-specific information did your agency include in this analysis (e.g., 100 year flood recurrence interval), if known?

Response

Summary of Sea Level Rise Projections *from* Climate Change Questionnaire

	Projection Not Provided	Projection Provided
Not Vulnerable	American Canyon Calistoga DSRSD Livermore St. Helena Yountville *POTWs in upland areas*	Pacifica *POTWs in upland areas*
Vulnerable *	Mt. View SD Napa San Rodeo SD Sewer Authority Mid-Coastside Port Costa EBDA (referred to member agencies) SVCW (referred to Redwood City) *Have studies underway* *Referenced online inundation mapping rather than a specific projection* *Referred to others*	Benicia Burlingame CCCSD Central Marin SA Delta Diablo EBMUD FSSD Hayward Las Gallinas VSD Marin SD5 Millbrae No. San Mateo CSD Novato Oro Loma SD Palo Alto Petaluma Pinole-Hercules SFO SFPUC San Jose San Leandro San Mateo Sausalito-Marin City SD SA Southern Marin Sonoma Valley CSD SSF-San Bruno Sunnyvale Treasure Island USD Vallejo West County WD

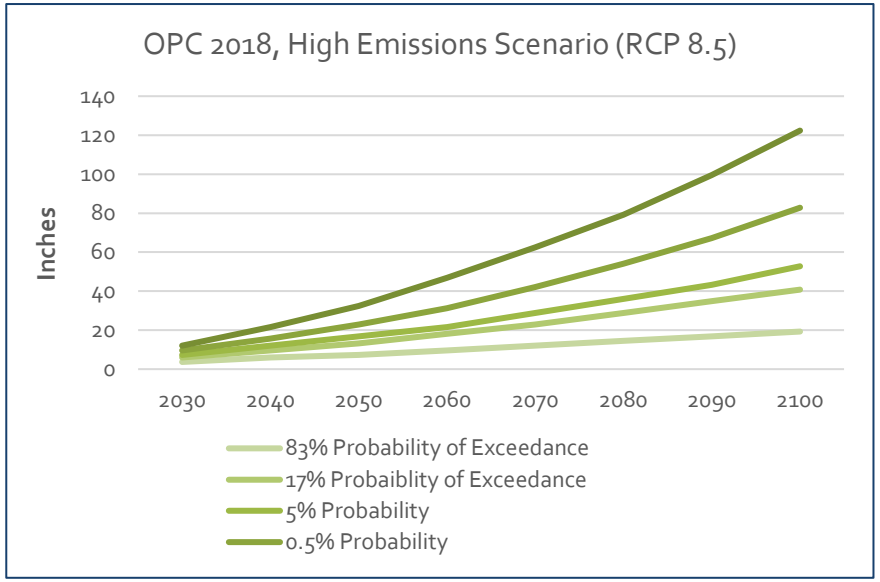
Summary of Sea Level Rise Projections *from* Climate Change Questionnaire

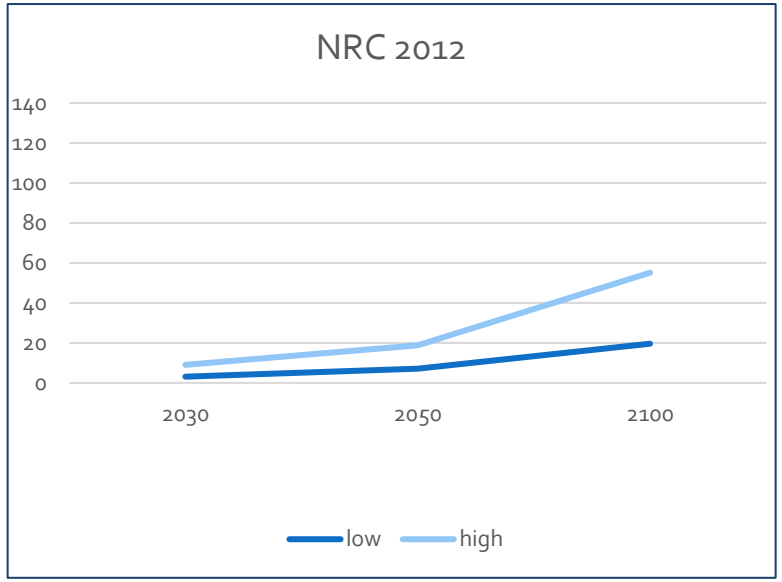


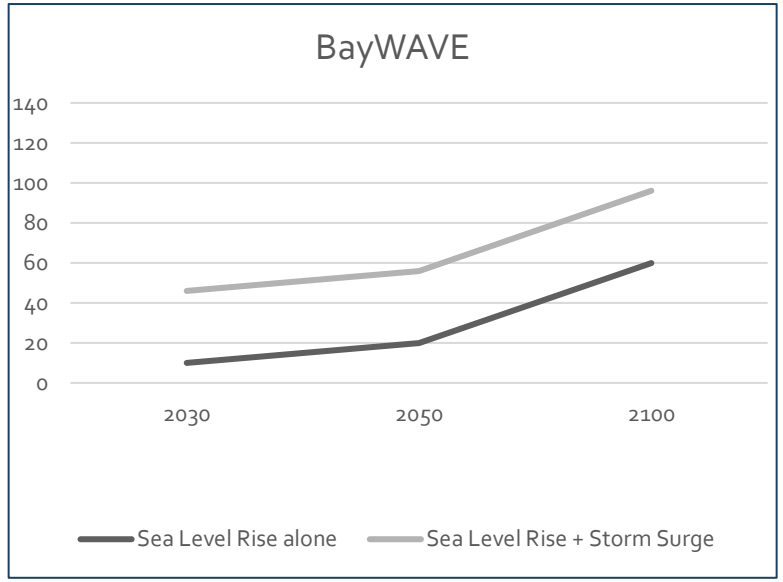
Summary of Sea Level Rise Projections *from* Climate Change Questionnaire

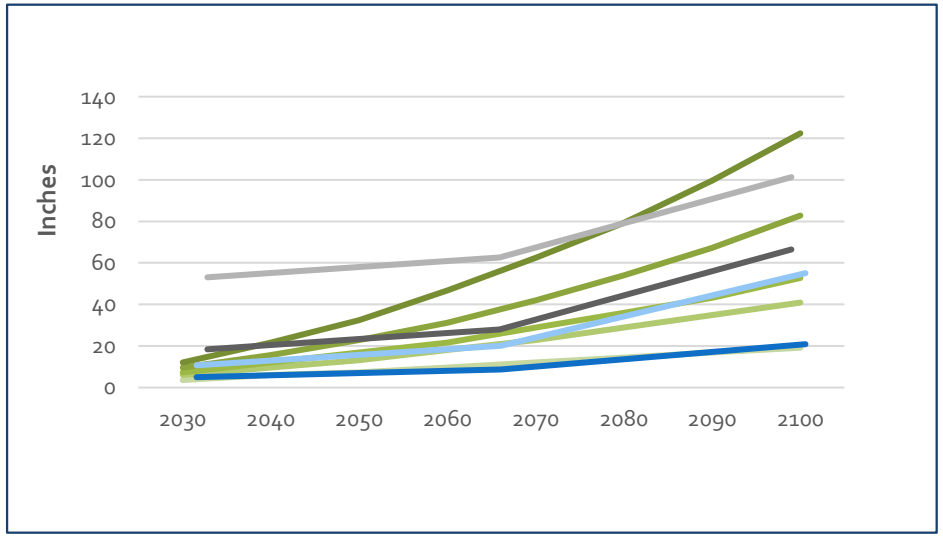
Most Popular Sources of Sea Level Rise (SLR) Projections

1. Ocean Protection Council (OPC) 2018
   (n=8 of 31 respondents)
   OPC 2013 (1) and 2017 (3) also used
2. National Research Council 2012 (5)
3. Marin County BAYWAVE (5)
4. RCP 8.5 (2)
5. Other, or not provided (8)









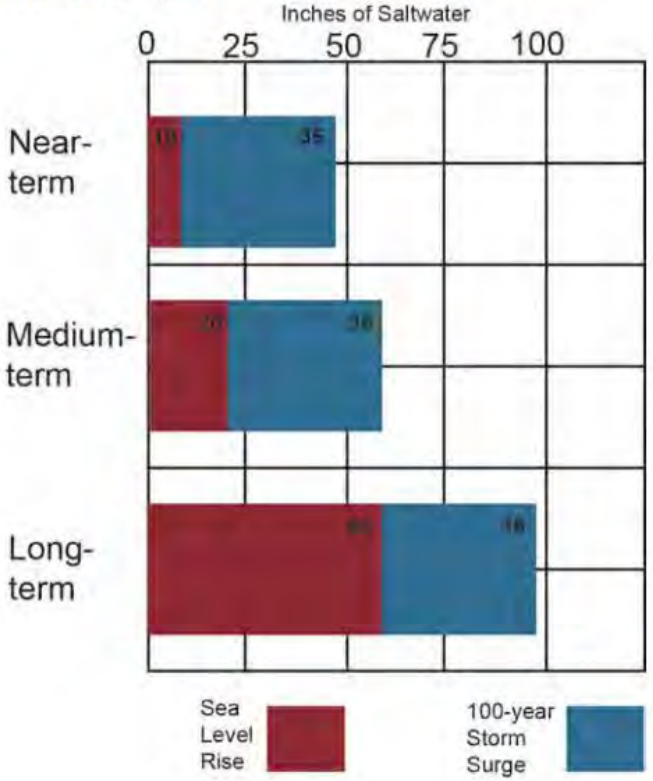
- The NRC and OPC projections have significant overlap
- Choosing the right scenario *within* a projection is just as important as choosing a reference

OPC (2018) – Complex Approach

		Probabilistic Projections (in feet) (based on Kopp et al. 2014)				H++ scenario (Sweet et al. 2017) *Single scenario
		MEDIAN	LIKELY RANGE	1-IN-20 CHANCE	1-IN-200 CHANCE	
		50% probability sea-level rise meets or exceeds...	66% probability sea-level rise is between...	5% probability sea-level rise meets or exceeds...	0.5% probability sea-level rise meets or exceeds...	
			Low Risk Aversion		Medium - High Risk Aversion	Extreme Risk Aversion
High emissions	2030	0.4	0.3 - 0.5	0.6	0.8	1.0
	2040	0.6	0.5 - 0.8	1.0	1.3	1.8
	2050	0.9	0.6 - 1.1	1.4	1.9	2.7
Low emissions	2060	1.0	0.6 - 1.3	1.6	2.4	
High emissions	2060	1.1	0.8 - 1.5	1.8	2.6	3.9
Low emissions	2070	1.1	0.8 - 1.5	1.9	3.1	
High emissions	2070	1.4	1.0 - 1.9	2.4	3.5	5.2
Low emissions	2080	1.3	0.9 - 1.8	2.3	3.9	
High emissions	2080	1.7	1.2 - 2.4	3.0	4.5	6.6
Low emissions	2090	1.4	1.0 - 2.1	2.8	4.7	
High emissions	2090	2.1	1.4 - 2.9	3.6	5.6	8.3
Low emissions	2100	1.6	1.0 - 2.4	3.2	5.7	
High emissions	2100	2.5	1.6 - 3.4	4.4	6.9	10.2
Low emissions	2110*	1.7	1.2 - 2.5	3.4	6.3	
High emissions	2110*	2.6	1.9 - 3.5	4.5	7.3	11.9
Low emissions	2120	1.9	1.2 - 2.8	3.9	7.4	
High emissions	2120	3	2.2 - 4.1	5.2	8.6	14.2
Low emissions	2130	2.1	1.3 - 3.1	4.4	8.5	
High emissions	2130	3.3	2.4 - 4.6	6.0	10.0	16.6
Low emissions	2140	2.2	1.3 - 3.4	4.9	9.7	
High emissions	2140	3.7	2.6 - 5.2	6.8	11.4	19.1
Low emissions	2150	2.4	1.3 - 3.8	5.5	11.0	
High emissions	2150	4.1	2.8 - 5.8	7.7	13.0	21.9

Marin County BayWAVE – Simplified Approach

Figure 3. BayWAVE Scenarios Associated Water Levels



Item #11. Summary of Sea Level Rise Projections *from* Climate Change Questionnaire

Conclusions

- BACWA Member agencies are using a wide range of sea level rise projections
- This range reflects the band of uncertainty provided by reference documents (OPC, NRC, etc.)
- Complexity in reference documents (such as OPC 2018 projections) needs to be simplified for use in regional planning

BACWA Executive Board Meeting Dates

Friday, November 19, 2021

Friday, December 17, 2021

Friday, January 21, 2022*

Thursday, February 18, 2022

Friday, March 18, 2022

Friday, April 15, 2022

Friday, May 6 or 13th, 2022 (Annual Meeting)

Friday, June 17, 2022

*Reschedule due to CASA?

Pardee Technical Seminar 2022

Tenative date

Thursday & Friday September 22-23, 2022

From: Diana Dominguez
To: Jennifer Dyment
Cc: Lorien Fono
Subject: Re: Rental Inquiry | Bay Area Clean Water Agencies
Date: Wednesday, November 10, 2021 4:10:52 PM

Hi Jennifer and Lorien,

So glad we got to connect in person today!

A full building buy out would look like this:

Full building: $2650
Extended occupancy fee: $195 (Covers the clean up hour from 3-4pm, which is outside of our half day window)

AV fees:
$325 for standard package + estimated $180 for staffing
OR
$650 videoconferencing + estimated $360 for staffing

catering and event partners

food, beverage, and facility policies

AV package descriptions and rates

Thanks!

Diana Dominguez (she/her -- what's this?)
Events Director

View our venue in a 360 degree video

David Brower Center
2150 Allston Way, Suite 100
Berkeley, CA 94704
t 510 809 0900 x 157 • f 510 809 0909
www.browercenter.org
fb DavidBrowerCenter
tw @BrowerCenter
ig @BrowerCenter

FY 2023 Proposed Budget Planning/Adoption Timeline

December 2021
Lorien & Jennifer meeting
Send Email Programs & Committees to submit draft FY23 budgets

January 14, 2022
Deadline for Special Programs and Committees to submit FY 2022 draft budgets and workplans/ financial requests and proposals to ED/AED.

January 2022 in last two weeks
Finance Committee Meeting
ED and AED meet with Finance Committee to present rough draft BACWA/CBC and Special Program (WOT) budgets and workplans, obtains feedback, and revises first draft as necessary in preparation for the February 18, 2022 Board meeting.

At February 18, 2022 **Executive Board Meeting** as part of the regularly scheduled monthly Board meeting the ED will lead a discussion to present draft BACWA/CBC and Special Program (WOT) budgets and workplans and obtain input to address any questions/concerns raised by the Finance Committee. Feedback from Board, with input from BACWA members/meeting attendees (including Committee Chairs) will be used for further revisions in preparation for the April Executive Board meeting.

March 2022 in first two weeks
Finance Committee Meeting (if needed)
ED and AED meet with Finance Committee to present second draft BACWA/CBC and Special Program (WOT) budgets and workplans, obtains feedback, and revise second draft as necessary in preparation for the March 18, 2022 Board meeting.

At March 18, 2022 Executive Board Meeting as part of the regularly scheduled monthly Board meeting the ED will lead a discussion to present draft BACWA/CBC and Special Program (WOT) budgets and workplans and obtain input to address any questions/concerns raised by the Finance Committee. Feedback from Board, with input from BACWA members/meeting attendees (including Committee Chairs) will be used for further revisions in preparation for the April Executive Board meeting.

Fifth week of March – First week of April
Finance Committee Meeting
ED & AED will incorporate feedback from Board & BACWA members on the draft FY22 BACWA/CBC and Special Program (WOT) budgets and workplans. Any necessary final revisions will be made by the ED in preparation for approval at the April Executive Board meeting.

April 15, 2022
BACWA Board meeting
The ED will include on the regular BACWA Board meeting agenda, a request that the Board approve the Final FY 2022 BACWA/CBC and Special Program (WOT) budgets and workplans.

2020 STRATEGIC PLAN

Bay Area Clean Water Agencies

BACWA's Mission

To provide an effective regional voice for clean water agencies' stewardship of the San Francisco Bay's ecological, community, and economic resources.

BACWA's Vision

To demonstrate leadership in the protection and enhancement of the San Francisco Bay ecosystem.

BACWA's Values

- Environmental stewardship
- Leadership
- Science-based decision making
- Collaboration
- Fiscal responsibility
- Watershed-based solutions

BACWA's Goals

- Advocate for regulation based on science
- Foster collaboration and relationship building with regulators and other stakeholders
- Pursue regional, multi-benefit solutions to environmental challenges
- Exemplify service and responsiveness to members and the public
- Practice good governance

GOAL 1: ADVOCATE FOR REGULATION BASED ON SCIENCE

Strategy 1 – Advocate for nutrient permitting based on science.

- **Objective 1 –** ~~Establish a~~Convene the Nutrient Technical Team made up of BACWA and member agency staff to engage with the San Francisco Bay Nutrient Management Strategy (NMS) by reviewing their work products and participating in the Assessment Framework process.
- **Objective 2 –** ~~Solicit and~~ Continue to contract consultant support for review and interpretation of NMS Work Products and review of the Assessment Framework process.
- **Objective 3 –** Convene BACWA's Nutrient Strategy Team to plan BACWA position on 3rd Nutrient Watershed Permit.
- **Objective 4 –** ~~Ensure~~ Plan financial contributions to the NMS ~~will~~to optimize scientific study workflow.

Strategy 2 – Advocate for air regulations based on science.

- **Objective 1 –** Meet ~~frequently~~ regularly with Bay Area Air Quality Management District (BAAQMD) policy and permitting staff to communicate clean water agencies' perspectives and capabilities. Support BAAQMD staff by providing technical information during development of regulations for ~~short-lived~~ climate pollutants and air toxics.
- **Objective 2 –** Collaborate with CASA and other clean water agencies statewide on projects to inform California Air Resources Board regulations, such as vehicle electrification and the AB 2588 compound list update and emission factor development.

Strategy 3 – Advocate for biosolids management regulations based on science.

- **Objective 1 –** Work with local, regional, and state regulators to maintain and support expansion of sustainable biosolids ~~re~~use alternatives.
- **Objective 2 –** Collaborate with Bay Area Biosolids Coalition to support initiatives aimed at establishing the safety and benefits of biosolids ~~re~~use.

Strategy 4 – Advocate for emerging water quality regulations based on science.

- **Objective 1 –** Provide support for Constituents of Emerging Concern (CEC) pollution prevention and pesticides control by state and federal agencies.

- **Objective 2 –** Engage in State Water Board and Ocean Protection Council initiatives, such as the reconvening of the Science Advisory Panel on CECs in Aquatic Ecosystems and the Microplastic Strategy.
- **Objective 3 –** Continue to participate actively in Regional Monitoring Program (RMP) technical and steering committees.
- **Objective 4 –** Demonstrate that BACWA can effectively implement solutions through regional projects, such as conducting the PFAS Regional Study in lieu of being compelled via a 13267 Order.

Strategy 5 – Advocate for the update of existing water quality regulations based on science.

- **Objective 1 –** Support Basin Plan amendments and triennial reviews by working with the Regional Water Board.
- ~~**Objective 2 –** Work with Regional Water Board to adopt a blanket permit amendment to incorporate the Chlorine Residual Basin Plan Amendment into NPDES Permits.~~
- **Objective 2~~3~~ –** Work with regulators to reduce low value required monitoring to enhance funding for RMP CEC studies.

GOAL 2: FOSTER COLLABORATION AND RELATIONSHIP BUILDING WITH REGULATORS AND OTHER STAKEHOLDERS

Strategy 1 - Maintain and broaden collaboration with regulators by engaging on existing regulatory initiatives and emerging issues.

- **Objective 1 -** Continue engagement with regulators to communicate clean water agencies' challenges and opportunities related to projects of environmental benefit.
- **Objective 2 –** Collaborate with regulators on emerging initiatives such as sea level rise adaptation planning, development of incentives for climate change mitigation, identification of feasible biosolids ~~re~~use strategies, and exploration of other resource recovery opportunities.
- **Objective 3 –** Work with Summit Partners to provide educational opportunities for State Water Board/Ocean Protection Council members and staff regarding clean water agencies' opportunities. Identify and develop a common understanding of mutual priorities.
- **Objective 4 –** Work with BAAQMD policy and permitting staff to update standard permit conditions, with the goal of reducing permitting hurdles that impede the implementation of projects of environmental benefit.

Strategy 2 - Monitor legislative efforts that impact BACWA members.

- **Objective 1 –** Work with industry associations and individual members to inform their efforts on legislative advocacy.
- **Objective 2 –** Consider a BACWA policy or position on how to engage in targeted legislative advocacy.

Strategy 3 - Maintain industry leadership by collaborating with other clean water associations.

- **Objective 1 –** Work with Clean Water Summit Partners to define and advocate on issues of statewide importance.
- **Objective 2 –** Inform, learn from, and jointly advocate with clean water associations such as the other Clean Water Summit Partner organizations, NACWA, and WateReuse.

GOAL 3: PURSUE REGIONAL, MULTI-BENEFIT SOLUTIONS TO ENVIRONMENTAL CHALLENGES

Strategy 1 - Promote integrated approach to a healthy Bay.

- **Objective 1 –** Identify and establish effective collaborations with drinking water and stormwater communities to further the One Water concept and/or other multi-benefit project types.
- **Objective 2 –** Identify and establish collaborations to implement integrated approaches to sea level rise adaptation.
- **Objective 3 –** Identify and implement effective pollution prevention strategies in partnership with regulators and partners.
- **Objective 4 –** Work with members and other regional entities to maximize grant funding for projects benefiting the region.

Strategy 2 - Support innovation to better address water quality and other ecological challenges.

- **Objective 1 –** Provide membership with information on technology pilot opportunities.
- **Objective 2 –** Establish and continue partnerships with universities and other research institutions and initiatives to develop collaborative approaches to issues of importance to the clean water community.
- **Objective 3** – Support existing coalitions and agencies that are pursuing regional solutions to challenges impacting the San Francisco Bay clean water community.

Strategy 3 - Provide value to members through facilitating regional solutions.

- **Objective 1 –** Continue to provide joint compliance activities on behalf of members, such as reporting via the Annual NPDES compliance letter to the Regional Water Board.
- **Objective 2 –** Continue to support and report compliance with the Mercury/PCB and Nutrient Watershed Permits.
- **Objective 3 –** Engage with regulators on behalf of individual member agencies when issues of regional importance arise.
- **Objective 4 –** Coordinate regional solutions to comply with new Environmental Laboratory Accreditation Program (ELAP) regulations.
- **Objective 5 –** Support members' biosolids programs via data-gathering, reporting, and information exchange related to biosolids management.

GOAL 4: EXEMPLIFY SERVICE AND RESPONSIVENESS TO MEMBERS AND PUBLIC

Strategy 1 - Ensure members are knowledgeable about critical issues and activities.

- **Objective 1 –** Communicate timely regulatory and technical information and events via BACWA committees, the BACWA Bulletin newsletter, and emails to members.
- **Objective 2 –** Ensure that BACWA contact lists are up to date.

Strategy 2 - Provide education and outreach to members and the public.

- **Objective 1 –** Provide support for pollution prevention messaging to the public via BAPPG.
- **Objective 2 –** Explore ways to support members' public communication on nutrients and other issues.
- **Objective 3 –** Consider justice/equity/diversity/inclusion in both wastewater workforce development and community engagement efforts. Support collaboration with underrepresented or disadvantaged groups.

Strategy 3 - Provide forum to hear all member voices.

- **Objective 1** – Conduct outreach to all members to inform them about opportunities for participation via committees and other events.
- **Objective 2** – Ensure that each member agency is knowledgeable about and engaged in negotiations on the 3rd Nutrient Watershed Permit so that BACWA's position reflects the interests of our members.
- **Objective 3 –** Provide forums and opportunities for information-sharing among members on issues of importance.
- **Objective 4 –** Use technology to maximize member participation in committee meetings.

Strategy 4 - Provide support for Projects of Special Benefit to assist membership.

- **Objective 1 –** Continue to support the Bay Area Biosolids Coalition (BABC).
- **Objective 2 –** ~~Complete transition of~~Continue administration of the Bay Area Chemical Consortium (BACC)~~ from DSRSD~~.

- **Objective 3 –** Support Bay Area Consortium for Water/Wastewater Education (BACWWE) as they transition to a scholarship-based system and continue collaboration with BAYWORK.
- **Objective 4 –** Consider any new requests for BACWA support based on members' benefits and potential costs to BACWA.

GOAL 5: PRACTICE GOOD GOVERNANCE

Strategy 1 - Ensure BACWA Policies and Procedures conform to applicable laws and best practices.

- **Objective 1 –**Regularly review and update BACWA Policies and Procedures.

Strategy 2 - Enhance fiscal transparency.

- **Objective 1 –** Work with EBMUD to improve readability and transparency of treasurer's reports in Executive Board Packet.
- **Objective 2** – Continue to update budget 5-Year Plan to ensure BACWA can develop its financial goals and has capacity for future initiatives to meet the objectives of the Strategic Plan**.**
- **Objective 3 –** Continue to ~~improve~~ practice internal controls on chain of custody to enhance transparency and security of authorizations and invoice approval process.

Guiding Principles for Funding Collaboratives

Draft - November 19, 2021

Background

BACWA is a joint powers agency formed by the five largest wastewater treatment agencies in the San Francisco Bay Area, with members who include the many municipalities and special districts that provide sanitary sewer services to the San Francisco Bay Area. Our mission is to provide an effective regional voice for clean water agencies' stewardship of the San Francisco Bay's ecological, community, and economic resources.

BACWA is often approached by partner entities who are interested in collaborating with the regional POTW community, and BACWA's role is to provide that regional point of contact. The request for collaboration generally involves an invitation to provide representation to the initiative, usually in the form of BACWA staff or a BACWA member agency representative who reports back to the BACWA Board. The request may also involve a solicitation of funding for the initiative.

In 2013 BACWA first included a line item in its annual budget to accommodate these collaborative funding efforts that are approved by the BACWA Executive Board. In the FY22 budget, identified collaboratives funded by BACWA include:

- State of the Estuary Conference ($20,000 paid in odd years) – Biennial regional conference. There was no contribution in FY21 since the conference was held remotely.
- BayCAN ($5,000 per year since FY20) – Regional climate change adaptation collaborative network built by and for local government staff to help coordinate and effect equitable response to the impacts of climate change on water, public health, ecosystems, fire and our shorelines.
- ReNUWIt – ($10,000 annual contribution) – Industrial/Academic collaboration with Stanford, UC Berkeley, Colorado School of Mines, NM State University, with NSF funding. BACWA has funded ReNUWIt for eight years but is now coming to an end, with no invoices being sent to BACWA in FY21 or FY22.

In the FY22 Budget, there is a $5,000 Miscellaneous budget line item that can accommodate new collaborative requests during the Fiscal Year. Payments for designated collaborative relationships are made upon receipt of an invoice.

BACWA's Strategic Plan

BACWA leadership has identified collaboration as key to its mission. In 2020, BACWA Updated its strategic plan, and identified "Collaboration" as one of our core values. One of the goals is to foster collaboration and relationship building with regulators and other stakeholders. Individual objectives support collaborations with other water quality entities, such as stormwater, drinking water, and recycled water partners, as well as state and national POTW associations, regional NGO groups, and academia.

Guiding principles for funding collaboratives

When evaluating whether to fund a particular collaborative, the BACWA Executive Board must decide how to make best use of BACWA funds, which are ultimately provided by ratepayers. To assist this decision making process, the following guiding principles will be used to evaluate collaborative funding requests:

1. For new requests in the current fiscal year, funds must be available in the current fiscal year budget line item, or alternative funding mechanisms may be identified.
2. The collaborative must advance BACWA's progress towards its Strategic Plan and be consistent with BACWA's Mission, Vision, and Values.
3. The collaborative should have a direct measurable benefit to BACWA or a plurality of its membership.
4. Providing funds for the collaborative should be a high priority relative to other such requests.
5. The collaborative should have a mission and function that is not duplicative with other collaboratives funded by BACWA.
6. Preference will be given to collaboratives where BACWA's participation includes a voice in governing the collaborative's actions and how BACWA's funds will be spent.
7. BACWA will consider the collaborative's other funding sources when making a decision. The collaborative seeking funding is discouraged from actively soliciting contributions from individual member agencies in addition to BACWA.
8. BACWA's Executive Board will review its collaborative contributions on an annual basis to ensure that our expenditures are in alignment with our goals.

AIR Committee –
Report to BACWA Board

AIR Committee Meeting on: 09/01/2021
Executive Board Meeting Date: 11/19/2021
Committee Co-Chairs: Nohemy Revilla and Jason Nettleton

Committee Request for Board Action: None

Proposed Amendments to BAAQMD Regulation 2: Permits
BAAQMD is in the process of amending Regulation 2 (specifically, Rules 2 and 5), which applies to all regulated sources of air pollution that are required to obtain a permit from BAAQMD. Regulation 2 requires compliance with various emissions and exposure requirements. BAAQMD is proposing to make Rules 2 and 5 under Regulation 2 more restrictive and protective of overburdened communities, in response to concerns regarding localized differences in air quality. Following the August 24th public hearing on the BAAQMD's Draft Amendments, BACWA submitted a comment letter on the draft proposed amendments stating emergency run time on diesel engines should not be limited and including wastewater treatment plants and collection systems as part of the definition of essential public services.

AB 617 Criteria Pollutant and Toxic Emissions Reporting (CTR) and AB 2588 Air Toxics "Hot Spots" Emission Inventory Criteria and Guidance (EICG) Updates
The August 12th Final Statement of Reasons released by CARB explained the wastewater sector will have until 2028 to perform a statewide "two-step process" in collaboration with CARB and air districts to determine a shortlist of compounds relevant to the wastewater sector to report. CASA is drafting a proposal for conducting the two-step process with member agencies which is anticipated to be released for review this fall (similar to the Pooled Emissions Estimation Program conducted in response to AB 2588 completed in 1990). CASA has prepared a one-page summary of the issue and the concept of the two-step process for the sector's use in having discussions internally and with their BAAQMD contacts (note that this will be updated to reflect the new timeline). Through 2028, WWTPs are to report "business as usual." If BAAQMD asks for any data beyond what is currently being collected, please inform the AIR Committee.

BAAQMD Rule 11-18: Risk Reduction from Air Toxic Emissions at Existing Facilities
All POTWs are in Phase II of the implementation schedule. The BAAQMD plans to begin sending initial requests for information to Phase II facilities before the end of the year, beginning with those plants having an estimated prioritization score >100. Please let the AIR Committee know if your facility receives a data request. POTWs are expected to respond to the data requests within two to four months of receiving the request.

In accordance with the Rule 11-18 Implementation Procedures (April 2018), BAAQMD provides opportunities for public review and comment on site-specific health risk assessment results and risk reduction plans. So far, three draft HRAs have been released; one Phase I facility was found to have risk levels below the risk action level and is not subject to the Rule.

SB 1383: Short-Lived Climate Pollutant Reduction Regulation & Implementation Status
This regulation targets methane reduction via diversion of organic waste from landfills to anaerobic digestion or composting facilities (the products of which are to be recycled). The Office of Administrative Law approved the regulation November 9, 2020. State enforcement begins in January 1 2022, local enforcement begins in 2024, and compliance is required by January 1, 2025. Assembly Bill 619 is calling for a one-year delay of enforcement on the implementation of the regulations and it is on the Governor's desk with the expectation that it will be signed.

BAAQMD Regulation 13 and Best Management Practices Survey

Rule development under BAAQMD Regulation 13 is currently suspended due to COVID-19 interrupting the stakeholder process and lack of data. However, BAAQMD continues to engage with BACWA in an effort to develop a baseline understanding of current methane (and VOC) management practices. Thank you to everyone who completed the best management practices survey – we have data representing 92 percent of the design average dry weather flow! We will send out a draft summary of the responses on best management practices for controlling methane emissions for your review prior to sending to BAAQMD staff. The summary provided to BAAQMD will include the Committee's interpretation of best practices, a potential recommendation for a permit condition, and a request for a "routine accommodation" for digester cleaning and maintenance, as suggested during the meeting discussion. Please let us know of any other suggestions as you review the summary. BAAQMD plans to revisit Regulation 13 development this fall to determine next steps.

CARB Advanced Clean Fleet Regulations

The Advanced Clean Fleet Rule requires all purchases be zero-emission vehicles (truck and bus fleets) by 2045 (possibly 2035, per the Governor's request!), with government entities identified as early adopters. The draft regulation was released August 25th, a public workshop was held on September 9th to summarize the draft and accept public comment and questions. Written comments are due September 27th. CARB's goal is to adopt the regulation by summer of 2022, with implementation targets beginning in 2024.

Member Updates

The group discussed the ferric chloride shortage and BAAQMD's uncertain response to being notified of the force majeure. Please continue to reach out directly to each other to discuss specific issues - coordination between facilities allows the sector to present a unified approach to BAAQMD. We are looking into measures related to force majeure circumstances and whether any precedents have been made.

Next AIR Committee Meeting: Wednesday, November 17th, 2021 (Virtual)

Recycled Water Committee –
Report to BACWA Board

Recycled Water Committee Meeting on: 09/28/2021
Executive Board Meeting Date: 11/19/2021
Committee Chairs: Stefanie Olson, Reena Thomas

Committee Request for Board Action: none

Detailed notes from meetings are posted online.
34 attendees (all participating remotely) representing 13 member agencies

Regional Recycled Water Evaluation Update

HDR/Woodard & Curran has prepared 13 complete drafts of individual plant reports, and 4 are in progress. Draft reports will be sent to these agencies in October, and agencies will have a 2-3 week review period. Summary tables will include flow and nitrogen loads expressed as an annual and a dry season average.

Recycled Water Demand Management

The group discussed the need for recycled water conservation measures. No members reported significant curtailments on recycled water deliveries, but some would consider public outreach as a first step. The need for conservation can result from insufficient supply, insufficient storage, or from hydraulic restrictions in the distribution system. Conservation measures discussed included: changing timing of filling golf course ponds; rebates for lawn conversion; installation of smart meters; and providing water budget information to recycled water customers.

Recycled Water Commercial Truck Fill Guide

Mary Cousins, BACWA Regulatory Program Manager, requested feedback on the draft Recycled Water Commercial Truck Fill Guide by the end of the week so that the guide can be finalized on Friday.

Last week, committee representatives met with the State Water Resources Control Board's Division of Drinking Water (DDW) to discuss regulatory issues related to commercial truck fill programs. DDW advises that the use of recycled water across jurisdictional boundaries is not an issue so long as it is clear who is legally responsible for carrying out the recycled water program regulatory responsibilities, including ability to enforce program requirements and be responsible for violations by recycled water users when those violations translate to permit violations (e.g., cross connections). Should this setup be proposed, DDW would be looking for this information in the Title 22 Engineering Report.

Monitoring users (a requirement of the 2016 State Order) and prevention of cross connections is a concern for recycled water crossing jurisdictional boundaries for both commercial and residential fill stations. Cross connections are a particularly high concern for residential customers due to lack of backflow prevention assemblies on domestic services. The group discussed possible ways to provide legal enforceability across jurisdictional boundaries, such as signing interagency agreements (as proposed by DDW); requiring commercial truck fill operators to obtain permits in multiple jurisdictions; requiring truck fill operators to separately seek out an agreement with the other jurisdictions (Redwood City approach); or requiring truck fill operators to obtain their own permit coverage (for a large operation)

Legislative and Funding Updates

- Governor Newsom recently signed a climate action bill that included $200M for recycled water, including $50M for San Diego's Pure Water project, funding for groundwater cleanup, and other water projects.
- The Direct Potable Reuse (DPR) expert panel met last month and was receptive to the many comments received. They were open to building flexibility into the draft guidelines. More information including a recording of the expert panel meeting is available here.
- The DWR Working Group for the variance on ET_0 for recycled water irrigation due to high TDS is continuing its discussions and looking for more specific examples. There is an issue with the variance only applying if TDS is higher than a certain threshold.
- DWR is continuing to work on the Plumbing Code update and is working on addressing language that the Plumbing Code only applies to systems inside the building and not exterior irrigation systems.
- DWR's Urban and Multi-benefit Drought Relief grant program proposal solicitation package is now available as a public draft. Applications will be accepted once the solicitation package is finalized, later in Fall 2021. More information is available on the DWR website.

Next Meeting – Tuesday, November 16, 2021, 10:30 am by Zoom

Pretreatment Committee – Report to BACWA Board

Pretreatment Committee Meeting: 9/30/2021
Executive Board Meeting: 11/19/21
Committee Chairs: Tim Potter, Michael Dunning

Committee Request for Board Action: None

43 attendees representing 19 agencies (remote participation only)

The committee welcomes nomination of a new co-chair to replace outgoing co-chair Tim Potter.

PFAS

BACWA's Regulatory Program Manager provided an update on the Bay Area Regional PFAS Study, including highlights from SFEI's presentation on Phase 1 findings and plans for Phase 2. A preliminary compilation of statewide POTW influent and effluent data provided to the Clean Water Summit Partners 4th PFAS workshop does not reveal a significant contribution from industrial loading – concentration in predominantly residential and commercial areas were just as high or higher than areas with industrial contributions. BACWA's Phase 2 study is likely to include sampling within one or more POTW collection systems to investigate further. It is premature to establish technically-based local limits based on water quality objectives in the Bay, although the Regional Water Board has adopted interim draft Environmental Screening Levels for two analytes (PFOA and PFOS) based on ecotoxicity that could be useful. EPA also provided a link to treatability information.

NPDES Permit Amendment for Monitoring and Reporting to Support CECs Studies

A proposed permit amendment will modify influent, effluent, and biosolids monitoring frequencies relevant to pretreatment programs. The group discussed the importance of properly classifying and reporting the number of significant industrial users (SIUs) within the annual report, since monitoring requirements will now reflect the SIU count.

Each agency uses slightly different criteria for classifying SIUs, as appropriate for each service area. This may be a topic for future committee training.

Regional Water Board Updates

Jessica Watkins and Michael Chee attended from Regional Water Board. They will soon be recruiting for a new scientist with pretreatment and pollution prevention responsibilities. The Regional Water Board has received contractor support to complete a Pretreatment Compliance Audit (PCA) for Napa in October. Mike Chee continues to serve as the main point of contact for pretreatment questions, and he confirmed that it is acceptable to provide an agency's own research and interpretation when asking questions.

State Water Board Updates

Erica Kalve, Olivia Magana, and Arnold Wong attended from State Water Board. Agencies were requested to copy the State Water Board on questions and program changes, as this will allow their staff to more quickly come up to speed on pretreatment matters. Contact info for the State Water Board's new Pretreatment and CECs Unit is shown below:

Erica Kalve, Statewide Pretreatment Coordinator, erica.kalve@waterboards.ca.gov
Arnold Wong, arnold.wong@waterboards.ca.gov
Olivia Magana, olivia.magana@waterboards.ca.gov

Pretreatment Committee – Report to BACWA Board

Pretreatment Committee Meeting: 9/30/2021
Executive Board Meeting: 11/19/21
Committee Chairs: Tim Potter, Michael Dunning

EPA Updates

Amelia Whitson of EPA Region 9 attended and provided a comprehensive update on electronic reporting, effluent limitations guidelines for PFAS, the Methods Update Rule, and resource recovery (see slides here). EPA will be completing a PCA of Livermore, and recently completed 2 industrial user audits. There was a brief discussion about the use of method-based limits; it is better to define industrial user limits using specific analytes rather than to define limits using methods (i.e., list each target analyte in your code, rather than "sum of all chlorinated hydrocarbons by Method XXX"). EPA will no longer serve as the main point of contact for pretreatment questions; see State Water Board contact information above.

Pretreatment programs will need to submit a program update to respond to the new electronic reporting requirements, but it is considered a non-substantial program change. Information about the two-step process for obtaining CROMERR certification is available from EPA here. Amelia confirmed that only federally mandated submittals (e.g. SIUs and CIUs permit applications and reports, one-time dental certifications) per federal guidance must submit with CROMERR certification. Other agency-specific reports (such as food service facilities, groundwater permits, etc.) do not have to be CROMERR-compliant. The pretreatment program ordinance needs to be modified to enable electronic reporting under CROMERR and may need to be modified to accept local mandated submittals electronically.

COVID Impacts

Most agencies reported that they have resumed inspections. Some permitted users (e.g., federal sites) are now requesting proof of vaccination or negative test results for inspectors.

Next meeting: TBD

BAPPG Committee
Report to BACWA Board

Meeting Date: October 6, 2021
Executive Board Meeting Date: November 19, 2021
BAPPG Chairs: Robert Wilson, Autumn Cleave

Committee Request for Board Action:

- none

Detailed Committee Notes are available online.

Regional Water Board Announcements

- A recruitment process to replace the BAPPG representative is underway. The recruitment period closes on October 25. More info is available on CalCareers.
- This year's recipient of the Dr. Teng-Chung Wu Pollution Prevention Award will be selected in the coming weeks.

Updates on Committee Activity and Announcements

- **Steering Committee**: The fall advertising campaign by SGA is underway and will run through November. The focus is on FOG and "Toilets aren't trash cans." So far the campaign has received 4,000 page views and 5,200 "clicks" at an average cost of 17 cents each. Two illustrations for committee use are posted on the BACWA website.
- Budget is on track. Since the fall campaign is underway, budget numbers may be outdated.
- **BACWA Announcements:** BACWA commends Central Contra Costa Sanitary District for assisting with sampling method development for the microplastics study being conducted by POTWs around the state. California Product Stewardship Council will be presenting to the BACWA Board on Friday, December 17th.
- **CWEA.** The P3S Conference will be held at the Long Beach Hyatt from Jan 31 – Feb 2, 2022. The Call for Proposals runs through October 13th.

Santa Rosa PFAS Sampling and Results

Robert Wilson (Santa Rosa) presented on the City's experience sampling for PFAS in influent, effluent, biosolids, and groundwater as required by the July 2020 Statewide Investigative Order WQ 2020-015-WQ. A copy of the presentation is available here.

BACWA PFAS Study Update

BACWA staff provided an update on the PFAS Regional Study led by BACWA in the San Francisco Bay region, which is in lieu of inclusion in the July 2020 Statewide Investigative Order for POTWs. BACWA and SFEI's full September 1st presentation to the Clean Water Summit Partners PFAS Workshop #4 is available here. All presentation videos and slides from the workshop are available here.

OEHHA is developing public health goals for PFOA and PFOS in drinking water. Meanwhile, EPA is developing analysis methods for water and wastewater (Draft Method 1633), preparing pretreatment regulations, and supporting scientific research (see EPA Actions to Address PFAS).

Public Outreach During COVID

Attendees shared how they are conducting public outreach with COVID restrictions still in place. Many agencies reported relying on virtual outreach using social media and virtual meetings. Some of the strategies shared included video tours, an online scavenger hunt, live virtual events, humorous outreach videos for posting on social media, and outdoor in-person events.

Next BAPPG General Meeting: December 1, 2021, by Zoom

Laboratory Committee – Report to BACWA Board

Laboratory committee meeting on: October 12, 2021
Executive Board Meeting Date: November 19, 2021
Committee Chair: Nicole Van Aken, Fairfield-Suisun Sewer District

Committee Request for Board Action: none

Regular meeting: 35 attendees (via teleconference only) representing 26 member agencies

ELAP Assessment Preparedness

Tips for preparing for ELAP assessments was the main point of discussion at the meeting. The committee received input from guest speaker Surjit Saini, Laboratory Services Manager at Santa Clara Valley Water District; and from committee member Sara Burke, Plant Chemist, Oro Loma Sanitary District. Both presenters' laboratories have recently received third-party assessments to support ELAP accreditation renewal applications. For renewal applications, make sure to download the most recent forms from the ELAP website. The following assessment tips were shared with the committee:

- Develop an assessment timeline. Plan far in advance to allow time to obtain quotes from multiple vendors. Make sure the selected third-party assessor (TPA) is available at the right time and has expertise auditing to the specific standards needed by your laboratory. Make sure laboratory staff are available, too.
- Allow plenty of time for approval of Corrective Action Plans. The overall schedule should also allow for review and possibly revision of Corrective Action Plans. Corrective Action Plans do not need to be completely implemented before the application is submitted, but they do need to be accepted by the third-party assessor (TPA).
- Ask your TPA if they are willing to offer a daily debrief in addition to a discussion of findings at the end of the assessment. This is a way to sort out "findings" vs "suggestions." In some cases, existing information may be available to clear up minor issues discussed during daily debriefs.
- Hiring an external consultant to help with an internal audit ahead of the third-part assessment is a helpful way to build confidence.
- Expect the TPA to request documents ahead of time.
- Prepare an org chart with employee names and provide it to the TPA to facilitate communication.
- Provide the TPA with an overview of your organization and explain how the lab supports its mission.
- Prepare a pleasant work area for the TPA.

A copy of Surjit Saini's presentation is available here.

Monitoring and Reporting Program - Basin Plan Amendment to Support CECs Studies

On Oct. 11, the Regional Water Board issued a Tentative Order to reduce monitoring requirements for some pollutants and to raise supplemental funding for Regional Monitoring Program CECs studies. Mary Cousins requested that BACWA members provide comments by Tuesday, October 26th.

Chlorine Blanket Permit Amendment

On Oct. 12, the Regional Water Board approved a Revised Tentative Order blanket permit amendment that will modify chlorine effluent limits and remove oil & grease monitoring requirements for BACWA members. The changes come into effect on the first day of the month after OAL and EPA approval (likely Dec.1 or Jan 1).

Results of PFAS Regional Study, Phase 2

SFEI and BACWA are working towards preparation of Sampling and Analysis Plan for Phase 2 of the PFAS Regional Study, which will include sampling at ~6 BACWA member agency facilities. For Phase 2, each facility will have a unique sampling plan for PFAS at the plant as well as potential sources within the sewershed. The schedule for Phase 2 will extend through Spring 2022.

TNI Training and Implementation

- The fourth TNI training session with Diane Lawver is scheduled for Tuesday, October 19. Recordings of previous sessions are available through the BACWA website (password required).
- The group discussed the changing requirements for documenting ongoing "Demonstration of Capability" for lab analysts. Suggestions included pulling the last four Laboratory Control Samples (LCS) from LIMS or having analysts run solutions saved from PT testing.
- The group discussed TNI language regarding sample custody. Suggestions included having a signature log for operators to sign in samples dropped off in a refrigerator, having lab staff record receipt of samples left in the refrigerator, and/or using custody seals.

Next meeting: December 14, 2021, 10 AM – 12 PM via Zoom – Sampling Plan training session to be hosted by CVCWA and Bill Ray

Permits Committee –
Report to BACWA Board

Permits Committee Meeting on: October 12, 2021
Executive Board Meeting Date: November 19, 2021
Committee Chair: Chris Dembiczak, EBMUD

Committee Request for Board Action: None

Regular meeting: 32 attendees (via teleconference only) representing 19 member agencies

Tentative Orders

Amy Chastain from SFPUC explained that the proposed Cleanup and Abatement Order will result in changes to operations before and during storm events, and also involves 3 major capital projects in areas with high flood risk. The estimated total capital cost is $600M. The proposed Order has already been approved by SFPUC's governing bodies and is part of a larger negotiation between the city, state, and federal entities.

Napa Sanitation District and Calistoga expect to see draft NPDES permits in the coming months.

Blanket Permit Amendment

On Oct. 12, the Regional Water Board approved the Revised Tentative Order blanket permit amendment that will modify chlorine effluent limits and remove oil & grease monitoring requirements for BACWA members. The Basin Plan Amendment must be approved by OAL and EPA before the blanket permit amendment becomes effective, so the effective date of the permit amendment is likely to be Dec. 1 or Jan. 1. Once effective, members should plan to upload the highest one-hour arithmetic mean as the daily value reported into CIWQS.

Nutrients Update

A science program annual update and list of recent work products is available from the Nutrient Management Strategy (NMS) science team. BACWA is working with Mike Connor on a review of select work products. An Assessment Framework update is now expected in December 2021. Lorien Fono shared a presentation regarding the Regional Water Board's current views on impairment and the need for a Basin Plan Amendment (available here, pg. 46-48), and also shared some findings from HDR's data analysis of nutrient loads. Agencies that have made process improvements or implemented recycled water projects should make a note of these changes when uploading data into HDR's forthcoming template for the nutrient Group Annual Report.

NPDES Permit Amendment for Monitoring Requirements

On Oct. 11, the Regional Water Board issued a Tentative Order to reduce monitoring requirements for some pollutants and to raise supplemental funding for Regional Monitoring Program CECs studies. Mary Cousins has requested that BACWA members provide comments on the Tentative Order by **Tuesday, October 26th**; the final comment letter is due on Nov. 15th. PCB congener monitoring via Method 1668C is not included in the Tentative Order, but monitoring frequencies may be revisited when the Mercury and PCBs watershed permit is reissued in 2022. Although the Tentative Order contains both monitoring reductions and requires Bay dischargers to provide supplemental monitoring for CECs studies, the actions are legally decoupled. The Regional Water Board has authority to pursue either action independently; they are combined in the permit amendment for administrative efficiency. Bay dischargers will see a supplemental fee included in the 2022 RMP invoices.

Microplastics

Lorien Fono reported out on a recent meeting of the RMP microplastics work group, which has established that stormwater contains 300x as many microplastics particles as wastewater, about ½ of which are tire fragments. Wastewater microplastics are predominantly fibers. CCCSD and EBDA are participating in an OPC-funded research project of microplastic removal in wastewater treatment plants.

PFAS

Development of the sampling and analysis plan for Phase 2 of the PFAS Regional Study is underway. Approximately 6 participants from Phase 1 will be involved in Phase 2, and samples will be collected at a greater variety of locations than Phase 1, including within collection systems and groundwater underlying biosolids disposal sites.

Triennial Review

The Triennial Review Staff Report identifies the highest-priority basin planning projects for Regional Water Board staff. BAWA recently submitted a brief comment letter on the Staff Report regarding the Nutrient Management Strategy, which is second-highest priority item.

SSS-WDR

In December or January, the State Water Board intends to release a public review draft order for sanitary sewer systems for a 60-day comment period.

Next BACWA Permits Committee Meeting: December 14, 2021, 12:30 PM via Zoom

Executive Director's Report to the Board

September and October 2021

EXECUTIVE BOARD MEETING AND SUPPORT

- Edited minutes and action items from 8/20 Executive Board meeting
- Worked with BACWA staff to plan and manage 9/17 Executive Board meeting
- Worked with BACWA staff and EBMUD stuff to plan and manage 10/28-29 Technical Seminar at EBMUD Orinda Watershed Headquarters
- Conducted the Executive Board meeting agenda review with the BACWA Chair
- Conducted the Orinda Technical Seminar program review with the BACWA Chair
- Continued to track all action items to completion
- Worked with venue to plan February 2022 Annual meeting

COMMITTEES:

- Participated in BACWA AIR committee meeting, 9/1
- Developed CEC presentation and hosted Managers Roundtable meeting, 9/27
- Attended BACWA Permits committee meeting, 10/12

REGULATORY:

- Discussed biosolids and SLR issues with Regional Water Board member
- Met with SFEI to discuss PFAS Phase 2 and held kickoff meeting with Phase 2 participants, 9/3
- Held individual meetings with PFAS Phase 2 participants
- Met with R2 staff to discuss Alternative Monitoring Order, 9/3
- Checked in with SFEI staff prior to RMP microplastic workgroup meeting, 9/23
- Met with UCI researcher about possible synergies between groups studying PFAS residential sources, 9/23
- Attended RMP microplastic workgroup meeting, 9/27
- Attended POTW funding workshop held by SWB, 10/20
- Planned and attended meeting with BAAQMD leadership, 10/13
- Worked with RPM to develop cost allocation for RMP CECs funding
- Met with R2 AEO to prepare for Orinda Technical Seminar

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
- Delivered presentation at WRF Nutrient Optimization webinar, 9/1
- Held discussion of BACWA/R2 nutrient efforts with WRF, 9/2
- Discussed WSP 3.0 with R2 staff
- Attended BACWA Data Steering committee meeting to discuss load cap calculations, 9/14
- Discussed a statistical analysis of baseline TIN loading data with HDR, 9/20

- Attended several planning meetings, then met with King County, WA, staff and HDR to describe SF Bay area collaboration on nutrients, 10/1
- Discussed nutrient cap and baseline calculations with Board member and staff
- Attended 10/6 Planning Subcommittee meeting, drafted meeting notes
- Participated in NBS CMG meeting, 10/8
- Planned and hosted 10/13 NST meeting
- Attended Model Advisory Group meeting, 10/22
- Met with Nutrient Technical Team to discuss SFEI Source Apportionment report, 10/25

FINANCE:

- Reviewed the monthly BACWA financial reports, summary, and budget to actual tracking sheet for May 2021
- Updated 5-year plan with different scenarios
- Discussed status of Treasure Island facility membership with SFPUC
- Reviewed and approved invoices
- Reviewed funding alternatives for FY22 NMS payment
- Discussed contracting issues with AED

COLLABORATIONS:

- Delivered presentation on BACWA special study at Summit Partners PFAS Workshop, 9/1
- Participated in CASA RWG Planning meeting on 9/14 and 9/15
- Met with California Water Quality Coalition Chair and manager, 9/14
- Attended CASA Collection Systems Workgroup meeting, 9/15
- Attended CASA RWG Biosolids meeting 9/16
- Met with BayCAN to discuss Climate Services Project 9/20
- Participated in CASA OAH Group meeting 9/22 and 10/18
- Attended BayCAN general meeting, 9/28
- Attended CWEA webinar on EDI in the water sector, 9/30
- Attended State of the Estuary Conference, 10/1
- Participated in PFAS Legislation Drafting Subcommittee meeting, 10/6
- Participated in Advanced Treatment Planning meeting, 10/6
- Participated in planning and participated on a panel for RMP Annual Meeting 10/14
- Reviewed Estuary Blueprint Actions on Nutrients, CECs, and Recycled Water
- Participated in PFAS NGO/WW Workgroup meeting 10/20
- Discussed future of Bay Area One Water Network with UC Berkeley faculty

ASC (AQUATIC SCIENCE CENTER)

- Reviewed materials sent via email by ASC ED
- Discussed potential new Board members with ASC ED
- Attended Exec Committee meeting 10/19
- Participated in 10/22 ASC Board meeting

BABC (BAY AREA BIOSOLIDS COALITION)

- Reviewed draft White Paper on Biosolids application in the Baylands, developed comments, and solicited comments from BACWA members
- Attended meeting to prepare for Biosolids in the Baylands workshop, 9/8
- Attended Biosolids in the Baylands workshop, 9/13

BACC (BAY AREA CHEMICAL CONSORTIUM)

- Discussed FY22 BACC process with AED
- Developed AED contract amendment to accommodate BACC support
- Reviewed BACC materials to kick of FY23 bid

BACWWE (BAY AREA COALITION FOR WATER/WASTEWATER EDIUCATION)

- Reviewed BACCWE email discussions
- Attended 9/29 BACWWE Executive Committee meeting

ADMINISTRATION:

- Planned for and conducted the monthly BACWA staff meeting to prepare for the Board Meeting and to coordinate and prioritize activities.
- Reviewed SLIP insurance proposal
- Updated BACWA's FPPC Statement
- 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**,** including giving overview of BACWA activities to new member agency staff
- Responded to Board members requests for information

Board Calendar

Dec 2021 – Feb 2022 Meetings

DATE	AGENDA ITEMS
December 17, 2021 9am – 1pm	**Approvals & Authorizations:** • **Policy / Strategic Discussion:** • **CPSC tentative** • **David Sedlak Bay Area One Water Network** • **AIR District** **Operational:**
January 21, 2022	**Approvals & Authorizations:** • **Policy / Strategic Discussion:** • **Operational:**
February 18, 2022	**Approvals & Authorizations:** • **Policy / Strategic Discussion:** • **Operational:**

BACWA ACTION ITEMS

Number	Subject	Task	Responsibiity	Deadline	Status
	Action Items from Sept 2021 BACWA Executive Board Meeting		**resp.**	**deadline**	**status**
2022.9.12	Discussion of R2 science needs for WSP 3.0	BACWA Executive Director to circulate questions to BACWA members for feedback at the next NST meeting to prepare to meet with the Water Board in late October.	ED	10/31/2021	complete
2022.9.13	Biosolids regulation and collaboration on biosolids white paper	BACWA Executive Director to communicate updates on White Paper resulting from the Workshop	ED	10/31/2021	complete
2022.9.14	Chlorine Residual Blanket Permit Amendment Adoption Hearing	BACWA Staff to work with Board members to submit a thank you message at hearing. RPM to share changes with BACWA committees	Staff	10/31/2021	complete
2022.9.15	Bruce Wolfe Scholarship fund	BACWA ED to work with EBDA on scholarship criteria	ED		ongoing
2022.9.16	OneWater Contribution	Retrieve contribution list from OneWater	ED	10/31/2021	complete
2022.9.17	Annual Meeting Planning - venue and speakers	Invite speakers to annual meeting	ED	10/31/2021	complete
2022.9.18	Arleen Navarret Award	Follow up with selection committee volunteers and previous recipients	ED	10/31/2021	complete
2022.9.19	Program for Orinda	Provide update on event to board after site visit	ED	10/31/2021	complete

	Action Items Remaining from Previous BACWA Executive Board Meetings				
2021.5.	BAAQMD Engagement	Prepare draft letter for BAAQMD Board of Directors regarding BACT determination	RPM \ ED	5/21/2021	pending
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	10/31/2021	complete

FY22: 19 of 19 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

September 2021

BACWA BULLETIN: Completed and circulated September 2021 Bulletin

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

CLIMATE: Began detailed review of Sea Level Rise responses from BACWA member agency responses on the Regional Water Board's climate change questionnaire.

NUTRIENTS: Participated in data analysis steering committee meeting; discussed proposed statistical analysis with HDR.

COMMITTEE SUPPORT:

AIR
- Attended quarterly committee meeting.

BAPPG
- Edited and circulated comment letter regarding pyrethrins.
- Assisted chair with preparations for October meeting.

Biosolids
- Continued compilation of results from 2021 Biosolids Survey, including member outreach.
- Participated in meeting to discuss Biosolids in Baylands.

Laboratory
- Assisted with third monthly TNI training session led by Diane Lawver.

Permits
- Prepared comments on administrative draft order for Monitoring and Reporting Program Permit Amendment.
- Prepared draft cost allocation spreadsheet and memo for Monitoring and Reporting Program Permit Amendment. Circulated and solicited feedback from members and Board.

Pretreatment
- Prepared for and attended committee meeting. Prepared and circulated meeting summary.
- Updated committee roster.

Recycled Water
- Prepared draft Recycled Water Truck Fill guide. Circulated to members for review.
- Attended committee meeting and prepared meeting summary.
- Participated in call with Division of Drinking Water to discuss regulation of truck fill stations.

ADMINISTRATION/STAFF MEETING – Participated in monthly staff meeting.

BACWA MEETINGS ATTENDED:
AIR Committee (9/1)
Executive Board (9/17)
Recycled Water Committee (9/28)
Pretreatment Committee (9/30)

EXTERNAL EVENTS ATTENDED:
Clean Water Summit Partners PFAS Workshop (9/1)
Biosolids in the Baylands Workshop (9/13)
CASA RWG Retreat (9/14, 9/15)
CASA Collection Systems Workgroup (9/15)
CASA RWG (9/16)
CASA ACE Workgroup (9/23, partial)
BayCAN Fall Meeting (9/28, partial)

Regulatory Program Manager's Report to the Executive Board

October 2021

BACWA BULLETIN: Completed and circulated October 2021 Bulletin

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

NUTRIENTS: Participated in nutrient technical team meeting; attended Nutrient Strategy Team meeting and prepared notes.

COMMITTEE SUPPORT:

AIR
- Assisted with preparations for meeting with BAAQMD staff.

BAPPG
- Prepared updates for October meeting. Attended meeting, prepared summary, and circulated content to committee.
- Submitted comment letter on neonicotinoid pesticides to EPA.

Biosolids
- Continued compilation of results from 2021 Biosolids Survey.
- Participated in meeting with BACWA member agency to discuss biosolids permitting.

Collection Systems
- Coordinated with chair regarding recruitment of co-chair.
- Assembled information about SSOs from late October storms.

Laboratory
- Prepared updates for October meeting. Attended meeting, and prepared draft summary.
- Assisted with fourth monthly TNI training session led by Diane Lawver.

Permits
- Prepared content for October meeting. Attended meeting, prepared draft notes, and circulated to committee.
- Revised draft cost allocation spreadsheet and memo for Monitoring and Reporting Program Permit Amendment. Circulated to committees and Executive Board. Presented content at RMP Steering Committee meeting.
- Began review of Tentative Order Monitoring and Reporting Program amendment.

Recycled Water
- Arranged for potable reuse speaker for November meeting.

ADMINISTRATION/STAFF MEETING – Participated in monthly staff meeting.

BACWA MEETINGS ATTENDED:
BAPPG (10/6)
Lab Committee (10/12)
Permits Committee (10/12)
Nutrient Strategy Team (10/13)
BAPPG Pesticides Subcommittee (10/19)
Lab TNI Monthly Training Session (10/19)
Nutrient Technical Team (10/24)
Pardee Technical Seminar (10/28, 10/29)

EXTERNAL EVENTS ATTENDED:
RMP Annual Meeting (10/14)
RMP Steering Committee (10/20, partial)
CASA RWG (10/21)
CASA PFAS Data Review Steering Group (10/26)

Lorien Fono

From: Jared Voskuhl <JVoskuhl@casaweb.org>
Sent: Monday, November 1, 2021 6:01 PM
Subject: [Regulatory] CASA November 2021 Regulatory Update

Categories: Board Packet

Good Evening,

Please find below updates from October and for November. Our prior September and October newsletters are also hyperlinked. CASA's next Regulatory Workgroup meetings will be on Thursday, November 18, and our Collection Systems Workgroup will meet the day before on Wednesday, November 17. Please let us know if you have any problems accessing these hyperlinked resources.

Thank you,
The RWG Team

WATER

SWB Report on 2020 Volumetric Report– 1M AF Recycled, 14% Decrease to Coastal Discharge
At the SWB's October 19 meeting, staff reported on the 2020 volumetric annual report of wastewater and recycled water. In 2020, the amount of water recycled in California under the state's Title 22 regulations grew 6 percent over the previous year to reach 728,000 acre-feet per year. Combined with recycled water used for environmental protection, which is not considered a Title 22 use, California now exceeds 1 million acre-feet of water recycling annually. WateReuse California (WRCA) testified that the potable reuse totals are expected to more than double in the next few years as major projects have begun construction and direct potable reuse regulations are in draft form, and WRCA also asked that the State Water Board include the "instream flow" and "natural systems" recycled water uses in its statewide totals for the 2021 report, as this will give the public a more complete understanding of the benefits of recycled water to California. Further analysis by WRCA also revealed that there was a 14% decrease in coastal discharges. Please reach out to Jared Voskuhl with feedback or questions.

Summit Partners Hosting Advanced Treatment Webinar for Policymakers
On December 6, the Clean Water Summit Partners (BACWA, CASA, CVCWA, CWEA, and SCAP) will host a free afternoon webinar focusing on opportunities and challenges for advanced wastewater treatment. The webinar is designed to provide a high-level overview of various advanced treatment options as well as costs and limitations, particularly in the context of

finding the most effective means of addressing constituents of emerging concern (including PFAS), nutrients, energy consumption and emissions issues, and recycled water production and usage. All are welcome, and the programming is intended for state legislative officials and staff, State and Regional Water Board Members and staff, and environmental advocacy organizations, to hear from the experts on wastewater planning and treatment, including specific case studies and examples being implemented or planned across California. You may register for the event here, the event flyer is here, and for additional information, contact Jared Voskuhl.

CA Climate Adaptation Strategy Proposes Coastal Discharge Ban

On October 18, the Newsom Administration and California Natural Resources Agency released for public comment its draft 2021 Climate Adaptation Strategy, as required by the Legislature. Their goal is to deliver a 2021 strategy that (1) outlines the state's key climate resilience priorities, (2) includes specific and measurable steps, and (3) serves as a framework for action across sectors and regions in California.

Notably, Action 7 pertains to research and policies towards eliminating coastal discharges, and specifically proposes a 2022-2040 time frame for "significantly reducing nutrient loading and/or phasing out coastal wastewater discharge into the ocean; work with partners to achieve a goal of 80- 90% coastal wastewater recycling that can be put to beneficial use."

Comments are due November 17, and Sarah Deslauriers, CASA's Climate Change and Program Manager, is preparing comments for us. Please reach out to her with your input. For general questions, you can review the strategy's webpage, or to contact their staff about this effort, please email the Strategy's coordination team in the California Natural Resources Agency and Governor's Office of Planning and Research at icarp@opr.ca.gov.

"Recycle the Runoff" Stormwater Reuse Event on 11/10

On November 10, the Los Angeles County Sanitation Districts (LACSD) and the Council for Watershed Health, are hosting a technical webinar exploring stormwater diversions as tools to improve water quality and capture dry-weather and wet-weather flows for treatment. The workshop will offer a roadmap for stormwater permittees interested in planning and implementing stormwater diversions in LA County. Expert panelists will cover the requirements, permitting needs, costs, benefits, and limitations of diversion projects. Agencies considering stormwater diversions under SB 273 will get an in-depth look at the evaluation and acceptance process used by LACSD, a large agency with extensive experience in stormwater diversion. More details are here, and you may register here. CASA, SCAP, and CASQA are collaborative partners for the event, and SCAP's Steve Jepsen will be one of the presenters. We hope you will attend and learn more about using existing infrastructure for MS4 compliance and water supply resiliency!

Cerio Study ESP Meeting Features Early Findings from Analysis of Within-Lab Variability

On October 20, the Expert Science Panel (ESP) for the "Development of Quality Assurance Recommendations for the *Ceriodaphnia dubia* Toxicity Test" (cerio study) met for the first time since May. SCCWRP staff presented about the initial analysis of the historical data that accredited labs provided to them over the summer. When this slide was displayed showing the average number of neonates per females in each test reported by each lab, the ESP expressed surprise at the amount of historical variability within labs, and due to its extent, speculated

there must have been a data entry issue. One ESP member confirmed that a level of variability is expected, however the degree of variability in the presented data exceeded expectations. SCCWRP staff are going to re-examine this while further developing their proposed data analysis plan. Additionally, at the beginning of the meeting, ELAP staff provided an update about their operations as it pertains to accrediting labs to perform the cerio testing, and SCCWRP staff received direction from the ESP to also consider performance test data required by each laboratory as part of ELAP accreditation along with other information ELAP holds about accredited labs. These actions will lengthen the time to conduct Task 2, Part 1 of the revised conceptual study plan. SCCWRP staff is developing a revised schedule of deliverables and will present it in the coming months. If you have any questions about these developments, please reach out to Jared Voskuhl.

SWB Re-Adopts Toxicity Provisions on 10/5

On October 5, the State Water Resources Control Board (State Water Board/SWB) re-adopted the toxicity provisions, which had been rescinded on June 25. This action was a byproduct of the California Superior Court's ruling on December 17, 2020 in *San Joaquin Tributaries Authority v. California State Water Resources Control Board* which held that the SWB was enjoined from utilizing the Water Quality Control Plan for Inland Surface Waters and Enclosed Bays [and Estuaries] to adopt policies for waters other than those for which water quality standards are required by the Federal Clean Water Act. CVCWA submitted comments, SCAP submitted comments, and the Los Angeles Department of Water & Power submitted comments, to which the State Water Board provided responses to comments on September 30. These exchanges related to legal issues raised by the SWB's new approach for adopting the toxicity provisions, towards which there was no discussion by the Board after staff's presentation before re-adopting the toxicity provisions. Please reach out to Jared Voskuhl with questions about either of these matters.

SWB Hosts Workshop on Wastewater Infrastructure Projects

On October 20, the State Water Board hosted a meeting on wastewater infrastructure projects under the state legislative appropriation this year of $650 million. CASA participated in the workshop and provided comments during it, and the workshop presentation is available here. Staff presented on their tentative plan which entails septic-to-sewer grants for projects in Disadvantaged Communities (DACs) of up to $10 million, including up to $75,000 per household, and for non-DACs of $6 million per project and $30,000 per household. Applications will be due in spring 2023, and construction must start by spring 2024 and be completed by the end of 2025. There are currently 14 septic-to-sewer projects under construction, and 3 in planning, totaling ~$200m. Staff requested stakeholders' input on a series of questions, like whether they should broaden existing grant criteria in the CWSRF IUP, if there should be a $350m septic-to-sewer set aside from the appropriation, and whether grant funding should be only for DACs. Staff plan to hold a public workshop in December, with adoption by the SWB tentatively scheduled for February 2022. Please reach out to Adam Link with questions.

SWB Hosts Water Utility Arrearages Payment Program Workshop

On October 20, the State Water Board hosted a meeting on the implementation of the water utility arrearages payment program, following their adoption on September 21 of the funding plan guidelines that established the steps and process for drinking water utilities to participate in the water and wastewater arrearage payment program. For the clean water community, beyond initiating a wastewater survey in the coming months, the wastewater arrearages

payment program is not expected to launch until mid-winter. Please reach out to Jared Voskuhl with comments or questions.

Annual WQCC Meeting Held on 10/21 & 10/22

On October 21 and 22, the State Water Board hosted its annual Water Quality Coordinating Committee, which is a meeting of all the board members from the State and Regional Water Boards. The agenda is here, and their focus this year was on the federal Clean Water Act (CWA) and planning for the Water Boards' 2022 CWA Campaign for its 50th anniversary. CASA's Bobbi Larson was one of the esteemed panelists in the afternoon on the first day who participated in a discussion with the Honorable Justice Robe and Denise Kadara, Vice Chair of the R5 Central Valley Regional Water Board, about success stories in California with implementing the Clean Water Act. The meetings will soon be available online, and CASA monitored them, so please reach out to Jared Voskuhl with inquiries.

CalEPA DTSC Workshop on Microplastics Research and Policy

On November 5, the Green Ribbon Science Panel for the California Department of Toxic Substances Control (DTSC) will host a workshop on microplastics research and policy. The meeting Notice is here, and the agenda is here. There will be a presentation on this in-depth background document, followed by discussion. CASA will monitor this meeting, and if you have questions or comments, please reach out to Jared Voskuhl.

SWB Workshop on 11/17 for Methods and Monitoring of Microplastics in Drinking Water

On November 17, the State Water Board is hosting a public workshop on their development of drinking water analytical methods and a testing and reporting plan for drinking water utilities. Previously, on September 28, the State Water Board's microplastics webpage was updated with SOPs for using raman spectroscopy and infrared spectroscopy, while the proposed drinking water testing and report plan will be released on November 10. Comments on the methods and plan are due on December 22, and they're expected to be adopted by the State Water Board at their February 15, 2022 meeting. Please contact Jared Voskuhl with your comments, feedback, or questions.

OPC's Microplastics Strategy is Forthcoming

On September 14, the Ocean Protection Council (OPC) met, and their agenda is here. Item #6 included a written update from Director Gold about the development of the statewide microplastics strategy, for which the proposed final version will be presented at the OPC's December meeting, and then will be up for adoption early in 2022. During the meeting, Director Gold shared the preliminary strategy outline and policy recommendations, which are being prepared for the official draft strategy later this fall, and include requiring microplastic filters on new washing machines. CASA supported this approach and co-sponsored AB 622 (Friedman) earlier this year, but unfortunately that bill did not advance out the Assembly. Please reach out to Jared Voskuhl with any questions.

California Ocean Liter Strategy Meeting on 11/10

On November 10, California Sea Grant/University California San Diego will host their biannual California Ocean Liter Strategy (OLS) update webinar. This event will include updates from California marine debris leaders, CA OLS partners, workgroup leads, agency updates, and legislative developments in California. Please register by Monday, November 1.

Water Conservation and Water Use Efficiency Implementation Nears Major Milestone
On October 25, the Department of Water Resources (DWR) hosted a meeting on implementing the Water Use Efficiency (WUE) legislation passed in 2018. DWR plans to present its recommendations to the State Water Resource Control Board in mid-December. These recommendations will cover a wide range of topics, including how the Potable Reuse Credit will be calculated and the Area Landscape Measurement. This has been a multi-year project and is nearing the finish line. Please reach out to Jared Voskuhl if you have any questions

SWB Agenda Roundup
Here are the recent State Water Board agendas for their meetings on October 5 (toxicity provisions re-adoption), October 19 (volumetric annual report), and November 2 (arrearages program, 2021 SWB performance report). The Executive Director reports are available for October and September with multiple items of interest (regulatory relief requests because of COVID, groundwater monitoring, irrigated lands program, water and wastewater arrearages program, operator certification, drought response, ELAP, enforcement updates), which features a link to the SWB's updated Statewide Policies and General Permits report calendar.

BIOSOLIDS

-

CASA Submits Comments to OEHHA on PHG for PFOA and PFOS
On October 28, CASA, CVCWA, and SCAP submitted comments to the Office of Environmental Health Hazard Assessment (OEHHA) on their Draft Public Health Goals (PHG) for PFOA and PFOS. The draft PHG are 0.007 ppt for PFOA and 1.0 ppt for PFOS, and OEHHA held a workshop on September 28 where they explained how they derived these values and shared there will be a second comment period after they revise the first draft for peer reviewers' input and the comments received from stakeholders. A brief recap by GSI Environmental of OEHHA's workshop is available here. CASA engaged GSI Environmental to perform an independent review and technical evaluation of the PHG's supporting materials, and their report is used as the basis for the comment letter and included as an attachment to our letter. Many thanks are due to our members for their support in funding the robust scientific review, including the City of Corona, the City of Los Angeles's Bureau of Sanitation, the City of Roseville, Encina JPA, LACSD, OC San, and Responsible Biosolids Management. Please reach out to Greg Kester with questions or feedback.

US EPA Releases PFAS Strategic Roadmap To Address PFAS Contamination
On October 18, the U.S. Environmental Protection Agency (US EPA) announced the release its PFAS Strategic Roadmap, which outlines how it will take a holistic approach to address PFAS pollution. Upon the roadmap's release, USEPA Administrator Michael Regan stated that the roadmap would deliver protections to the public by advancing actions addressing these forever chemicals' entire lifecycle. The roadmap can be accessed here. Following the roadmap's release, USEPA will engage with stakeholders to identify collaborative solutions and will hold two national webinars on October 26 and November 2 that are open to the public. To attend the November webinar, RSVP using the hyperlinked date above.

Greg Kester Nominated for US EPA Science Advisory Board, Support Due by 11/3

On September 1, US EPA announced the formation of a Science Advisory Board to review their White Paper: A Standardized Approach to Biosolids Chemical Risk Assessment and a Biosolids Screening Tool with an accompanying User Guide. The White Paper, which includes a prioritization method, deterministic screening model, and a probabilistic risk assessment modeling framework will be used to modernize, standardize, and streamline the risk assessment process to efficiently and thoroughly assess risk to chemical pollutants found in biosolids. US EPA are accepting comments until November 3 on their list of candidates, including CASA's own Greg Kester.

CASA Seeking Support for National PFAS Research Project

On October 21, Dr. Ian Pepper and Greg Kester presented to CASA's regulatory workgroup biosolids committee on the Scope of Work for their National PFAS research project. This presentation summarized the details which Board members and other decision-makers can use when considering contributing to this. The study would be a two-year project in which the first year would evaluate PFAS transport to groundwater at biosolids land application sites and the second year would focus on crop uptake. CASA is now requesting funding pledges which will be through the U of AZ Water Environment Technology (WET) Center. Contributors will be able to review the final scope of work and provide comments and recommendations. It is expected that this project will complement and be coordinated with the recently funded biosolids research projects by USEPA. Please let Greg Kester know if you have any questions or comments in the meantime.

US EPA Awards Nearly $6 Million for Research on Risks from Pollutants Found in Biosolids

On September 28, US EPA announced that they have awarded four research grants for biosolids, totaling $6 million dollars, signifying the largest investment in the biosolids program in many years. They generally include a timeline beginning this fall and concluding by late summer/early fall 2024. They will provide needed data on emerging constituents of concern including PFAS which will allow EPA to conduct credible risk assessment. More details on each project are here. Please let Greg Kester know if you have questions or comments.

US EPA Releases Listing for GenX Chemicals (PFOA Substitute)

On October 25, US EPA announced it has issued an updated toxicity assessment with a lower safe daily dose limit for GenX chemicals, specifically, Hexafluoropropylene Oxide (HFPO) Dimer Acid and its Ammonium Salt. HFPO dimer acid and its ammonium salt are also known as "GenX chemicals" because they are the two major chemicals associated with the GenX processing aid technology. GenX is a trade name for a processing aid technology used to make high-performance fluoropolymers without the use of PFOA. The GenX chemicals toxicity assessment provides hazard identification, dose-response information, and derives toxicity values called oral reference doses (RfDs) for chronic and subchronic exposures. The assessment underwent external peer review and public comment. Policy makers can use the GenX chemicals toxicity assessment along with exposure information and other important considerations to determine if, and when, it is appropriate to take action to reduce exposure to GenX chemicals. The supporting materials are on the EPA's website linked above, and a fact sheet is here. Please reach out to Greg Kester with more questions.

SB 1383 Webinars on Measurement Reporting

On October 26, CalRecycle hosted a webinar on the new requirements for facilities to measure and report organic materials pursuant to the SB 1383 regulations. This webinar included discussion of the measurement requirements as well as the changes to the Recycling and Disposal Reporting System (RDRS) based on the implementation of SB 1383. The first reporting period pursuant to SB 1383 requirements is the 1st quarter of 2022. The webinar was aimed to help agencies understand the requirements and provided an opportunity for attendees to ask questions. Both will be archived on CalRecycle's webpage. Let Greg Kester know if you attended or have questions about this information.

DTSC Listing Treatments on Textiles Containing PFAS, Comments due 11/8
On September 22, DTSC released a proposed action to list treatments of PFAS used on textiles or leathers as a Priority Product. The public comment period is open until November 8. CASA will be submitting comments supporting this listing. Please let Greg Kester know if you have any questions or comments.

November Research Library (Human contributions to wastewater)
Here is the summary for this month's biosolids research library from Dr. Sally Brown (University of Washington) and NW Biosolids. Please let Greg Kester know if you would like any of the abstracts or complete articles.

DATES

November 2	SWB MEETING
November 2	US EPA Webinar on PFAS Strategic Roadmap
November 5	DTSC Microplastics Research and Policy Workshop

November 8	DTSC Comment Deadline on PFAS Treatments for Textiles
November 9	California Environmental Flows Workgroup
November 10	LACSD “Reuse the Runoff” Event
November 10	California Water Quality Monitoring Council Meeting
November 10	California OLS Biannual Meeting
November 16	SWB Meeting
November 16	CASA Air Quality, Climate Change, and Energy Workgroup
November 17-19	NACWA Law Conference (Charleston)

November 17 SWB Microplastics Workshop

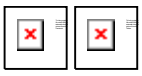
November 17 CNRA 2021 Climate Adaptation Strategy Comment Deadline

November 17 CASA Collection Systems Workgroup

November 18 CASA Regulatory Workgroup

December 6 Summit Partners Advanced Treatment Workshop

December 7 SWB Meeting



Visit our website

CALIFORNIA WATER QUALITY MONITORING COUNCIL
RESOLUTION NO. 2021-0001

WASTEWATER-BASED SURVEILLANCE OF COVID-19

WHEREAS:

1. The World Health Organization declared COVID-19 a world health emergency in January 2020, followed shortly thereafter by the United States declaring a public health emergency.

2. Public health officials need accurate and timely information on the spread, movement, and control of the COVID-19 virus.

3. California's research and wastewater utilities quickly demonstrated international leadership in advancing a new approach to prevalence assessment: Wastewater-based epidemiology (WBE) to quantify trends in COVID-19. WBE complements clinical testing and can detect the virus shed by both symptomatic and asymptomatic individuals. WBE also yields information several days and almost two weeks sooner than it takes to collate individual testing and hospitalization records, respectively.

4. California's utilities undertook these efforts at their own expense, partnering with research institutions such as Stanford University, the University of California (UC) at Berkeley, UC Davis, UC San Diego, University of Arizona, Loma Linda University, University of Southern California, the Water Research Foundation, and the Southern California Coastal Water Research Project Authority to implement those efforts. Several utilities initiated these efforts as early as March 2020, with continual participation for the last 18 months. Those early efforts established sampling and analysis protocols subsequently adopted by others and demonstrated to the world that WBE is a valuable tool to inform COVID-19 public health response.

5. The US Department of Health and Human Services subsequently partnered with utilities in two phases of pilot studies to study the logistics of implementing WBE nationally. Eleven California utilities participated in Phase 1 and 25 utilities participated in Phase 2.

6. The California Department of Public Health and the State Water Resources Control Board entered into a formal partnership with the Centers for Disease Control and Prevention in December 2020 in a comprehensive program to further develop the WBE approach. Five California utilities participated in that program, again at their own expense, voluntarily collecting wastewater samples three times a week, analyzing samples according to protocol, submitting data to the Center for Disease Control's National Wastewater Surveillance System (NWSS), and participating in monthly California NWSS Workgroup coordination meetings for the state's pilot wastewater surveillance program. Originally a six-month project, these five utilities continue to participate in the program and make their data available to the public.

7. The California Water Quality Monitoring Council (Council) was formed by CA Senate Bill 1070 (Kehoe, 2006) and is mandated under California Water Code Section 13181 to enhance the effectiveness of California's water quality monitoring systems, with Council

members appointed by the Secretaries of CalEPA and Department of Natural Resources. The Council worked with utilities to help enhance the sampling and analysis protocols for WBE and was impressed by the commitment of California's wastewater utility community to help inform management of this public health crisis.

NOW THEREFORE BE IT RESOLVED THAT:

The California Water Quality Monitoring Council (Council) formally recognizes and extends its profound appreciation for the efforts of the utilities below to develop and implement wastewater monitoring that informs responses to the COVID-19 pandemic and protects the health of Californians.

Utilities that were early trendsetters in implementing wastewater-based epidemiology prior to the formal development of State and Federal programs and who have maintained sampling for more than a year:

- East Bay Municipal Utilities District
- Orange County Sanitation District
- Los Angeles County Sanitation Districts
- Los Angeles City Sanitation and Environment
- City of San Diego Public Utilities
- San Francisco Public Utilities Commission
- City of Gilroy
- City of Davis
- Silicon Valley Clean Water
- City of Palo Alto Regional Water Quality Control Plant
- San Jose-Santa Clara Regional Wastewater Facility
- Sacramento Regional County Sanitation District
- City of Sunnyvale
- City of San Bernardino Water Reclamation Facility
- Sanitary District No.5 of Marin County
- Central Marin Sanitation Agency
- Las Gallinas Valley Sanitary District
- Sausalito-Marin City Sanitary District
- Sewerage Agency of Southern Marin
- Novato Sanitary District
- Central Contra Costa Sanitary District
- Delta Diablo Sanitary District
- West County Water District
- City of Yountville
- City of American Canyon
- Union Sanitary District
- City of Vacaville
- Lake County Sanitation District
- South Orange County Wastewater Authority
- Oro Loma Sanitary District
- Las Vírgenes Municipal Water District

- Mariposa Public Utility District

Utilities that participated in the Center for Disease Control's National Wastewater Surveillance System program in cooperation with the State Water Quality Control Boards:

- Los Angeles County Sanitation Districts
- Los Angeles Sanitation and Environment
- City of San Diego Public Utilities
- Orange County Sanitation District
- San Francisco Public Utilities Commission

Utilities that participated in the US Health and Human Services national monitoring pilot program:

- East Bay Municipal Utilities District
- Orange County Sanitation District
- Los Angeles County Sanitation Districts
- Los Angeles City Sanitation and Environment
- City of San Diego Public Utilities
- San Francisco Public Utilities Commission
- Sacramento Regional Wastewater Treatment Plant
- Central Contra Costa Sanitary District
- Encina Water Pollution Control Facility
- Oxnard Wastewater Treatment Plant
- Silicon Valley Clean Water
- City of San Mateo Wastewater Treatment Plant
- Laguna Niguel Regional Treatment Plant
- City of San Luis Obispo Water Resource Recovery Facility
- Delta Diablo
- Las Virgenes Municipal Water District
- Carmel Area Wastewater District
- City of Eureka
- City of Fresno
- Valley Sanitary District
- City of Lincoln Wastewater Plant
- City of Lompoc WWTP
- City of Oxnard
- City of Paso Robles
- City of Redlands
- San Elijo JPA
- City of Santa Barbara
- City of Santa Cruz
- City of Santa Rosa
- City of Watsonville WWTF
- City of San Bernardino Municipal Water Department
- Sewer Authority Mid-Coastside

CERTIFICATION

The undersigned Co-Chairs of the Council do hereby certify that the foregoing is a full, true, and correct copy of a resolution duly and regularly adopted at a meeting of the California Water Quality Monitoring Council held on November 10, 2021.

Karen Mogus Co-Chair representing CalEPA	Mark Gold Co-Chair representing CNRA