BACWA
BAY AREA
CLEAN WATER
AGENCIES

Executive Board Meeting
AGENDA
Friday, March 18, 2022 9:00 AM - 12:30 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	**9:30 AM**	
CONSIDERATION TO TAKE AGENDA ITEMS OUT OF ORDER			
CONSENT CALENDAR		**9:35 AM**	
1 Resolution to continue teleconferencing Executive Board meetings (AB361)			**3-4**
2 February 18, 2022 BACWA Executive Board meeting minutes			**5-10**
3 January 2022 Treasurer's Report			**11-20**
APPROVALS AND AUTHORIZATIONS		**9:40 AM**	
4 Approval: FY 22 Contract with SGS AXYS for PFAS Analysis $98,220.			**21-31**
5 Approval: Amendment to FY22 Carollo AIR Committee support contract, add'l $10K			**32-40**
POLICY/STRATEGIC		**9:45 AM**	
6 Discussion: Nutrients			
a. Technical Work			
i. March 11 NTW and subsequent meeting debrief	NTW Materials		**41**
ii. BACWA support letters for NMS fundraising efforts			**42-46**
iii. Plain-language review of nutrient science program			**47-50**
b. Regulatory			
i. 2022 GAR Re-Submittal			
ii. Update on baseline evaluation			
c. Governance Structure			
i. March 2, 2022 Planning Subcommittee meeting notes			**51-53**
BREAK		**10:30 AM**	
7 Discussion: Proposed agenda for BAAQMD workgroup meeting and attendees			**54**
8 Discussion: SSS WDR update and response			
9 Informational: WRAP Action 2.16 on Institutional Barriers to recycling	WRAP 2.16 Final Report		**55-56**
10 Informational: BAPPG Annual Report			**57-73**
11 Discussion: Draft Climate Change Basin Plan amendment			**74-90**
OPERATIONAL		**11:10 AM**	
12 Discussion: Reenvisioning the O&M Infoshare Group			
13 Discussion: FY23 Draft Budget and workplan			**92-107**
14 Discussion: 2022 Annual Meeting Program and logistics			**108**
15 Discussion: AB361 sunset and future of remote Executive board meetings			
16 Informational: BACC Update			
17 Informational: Form 700 reminder			
18 Discussion: Arleen Navarret award selection committee			
19 Informational: Kickoff of Bruce Wolfe memorial scholarship			**109**
REPORTS		**12:20 PM**	
20 Committee Reports			**110-118**
21 Member highlights			
22 Executive Director Report			**119-120**
23 Board Calendar and Action Items			**121-122**
24 Regulatory Program Manager Report			**123**
25 Other BACWA Representative Reports			**124-130**
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; Amit Mutsuddy		

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		
v. California Water Quality Monitoring Council	Lorien Fono		

26 **SUGGESTIONS FOR FUTURE AGENDA ITEMS**	**12:29 PM**	
NEXT MEETING		
The next meeting of the Board is scheduled for April 15, 2022		
ADJOURNMENT	**12:30 PM**	

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.

NOW, THEREFORE, BE IT RESOLVED that the Executive Board of the Bay Area Clean Water Agencies 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 18th DAY OF MARCH, 2022.

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

ATTEST:

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

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**
Azalea Mitch	City of San Mateo
David Donovan	City of Hayward
Diane Griffin	DSRSD
Don Gray	EBMUD
Dave Richardson	Woodard & Curran
Eric Dunlavey	City of San Jose
Jared Voskuhl	CASA
Jennifer Dyment	BACWA
Jennifer Harrington	VFWD
Lorien Fono	BACWA
Mary Cousins	BACWA
Meg Herston	FSSD
Michael Connor	Consultant
Rion Merlo	Hazen and Sawyer
Ryujiro Tsuchihashi	Jacobs Engineering
Sarah Deslauriers	Carollo Engineers
Samuel Feldman-Crough	EBMUD
Stefanie Olson	DSRSD
Tom Hall	EOA

Amit started meeting at 9:02 am

ROLL CALL, INTRODUCTIONS, AND TELECONFERENCE ETIQUETTE

CLOSED SESSION to discuss personnel matters pursuant to California Government Code section 54957.

There was no report out from the closed session

PUBLIC COMMENT

CONSIDERATION TO TAKE AGENDA ITEMS OUT OF ORDER Item 7 Discussion: Recycled Water Committee Proposal to develop site supervisor training video to be taken first.

CONSENT CALENDAR

1 Resolution to continue teleconferencing Executive Board meetings (AB361)

2 January 10, 2022 Special Executive Board meeting minutes

3 January 14, 2022 BACWA Executive Board meeting minutes

4 January 27, 2022 Special Executive Board meeting minutes

5 December 2021 Treasurer's Report

Consent Calendar Items 1 thru 5: *A motion to approve was made by Lori Schectel (Central Contra Costa Sanitary District) and seconded by Jackie Zipkin (East Bay Dischargers Authority). The motion was approved unanimously.*

APPROVALS AND AUTHORIZATIONS

6 Authorization: Contract with Richard Cunningham – The contract was approved on January 28 by the chair of the Executive Board.

POLICY/STRATEGIC

7 Discussion: Recycled Water Committee Proposal to develop site supervisor training video - Recycled Water Committee Co-chair, Stephanie Olson, made a funding request to be included in the FY23 budget. The committee would like to produce a series of videos to provide recycled water training to users and to fulfill regulatory training for site supervisors. Videos topics would include limited water supply, treatment & water quantity, regulations, and site supervisor responsibilities. Videos will be general in nature but regionally focused. Videos are for staff training and consumers. General discussion followed.

8 Discussion: Nutrients

a. Technical Work

i. Feb 15 Assessment Framework workshop debrief - BACWA Executive Director shared slides summarizing meeting. Topics included the Open Bay Assessment Framework & Lower South Bay Sloughs Assessment Framework. Slides summarized Water Board perspective on each topic. The assessment framework will be re-evaluated prior to each reissuance of the Nutrient Watershed Permit. Mike Connor shared his review of the framework. General discussion followed.

b. Regulatory

i. 2022 GAR Submittal – BACWA Executive Director reminded group that Mike Falk, from HDR, presented GAR at the last meeting, and then provided data on phosphorus that was updated after Mike's presentation. The GAR was submitted to water board on February 1, 2022.

Action item: BACWA Executive Director to resubmit report or appendix because Rodeo TIN and EBDA average flow in Appendix was incorrect.

ii. Update on baseline evaluation - BACWA Executive Director provided an update on baseline reevaluation. The goal is to establish a statistically defensible baseline that incorporates all the variability in the data from our chosen period to record. Three statistical alternatives were tested and summarized. The data analysis steering committee will meet again to consider next steps.

iii. Future funding for the NMS - BACWA Executive Director shared the pros and cons / challenges of potentially transitioning the nutrient science program to the RMP. The program redesign needs would include permitting, governance, and funding. Eric Dunlavey shared his perspective as a steering committee member on both the NMS and RMP. General discussion followed.

c. Governance Structure

i. Feb 2, 2022 Planning Subcommittee meeting notes - BACWA Executive Director reminded people that the notes were in the packet and the next meeting is March 2.

9 Discussion: BACWA recognition of Biosolids in the Baylands White Paper - Sarah Deslauriers summarized white paper which is included in the packet for members to review. Sarah summarized the process to publish the white paper and whether to include BACWA's logo on it or not. The Board agreed to provide BACWA's logo. General discussion followed.

Action item – BACWA Executive Director to provide an introductory summary of BACWA, and share updates with the group.

BREAK 11:50-11:55

10 Discussion: Proposed agenda for BAAQMD workgroup meeting - BACWA Executive Director and Sarah Deslauriers developed a draft agenda, and it is in the packet. BACWA Executive Director proposed we discuss it at the next meeting but to please notify her as soon as possible with any edits or suggestions prior to sending it to BAAQMD for review.

Action Item – BACWA Executive Director to contact BAAQMD to find out expected number of attendees.

11 Discussion: Funding for CASA engagement on ACE, and lobbying status - BACWA Executive Director shared that to contribute to CASA's ACE engagement effort, we would need to register as a lobbyist employer. She shared a slide that summarized the definition of a lobbyist & related terms per the FPPC. Group discussion followed on three options for funding enhanced CASA engagement on ACE in FY22. The group agreed on option #2, which was to increase the consultant contract for the AIR committee with a new task for Statewide issues, and to specify that the scope does not include lobbying activities.

Action Items: BACWA ED to work with CASA and Sarah Deslauriers to implement option #2.

12 Informational: Regulatory Matrix Update – BACWA Regulatory Program Manager briefly discussed the January regulatory matrix update.

13 Informational: PFAS Phase 2 SAP update - BACWA Executive Director shared slide that summarized dates and action items of PFAS Phase 2 study implementation. The two most

important study questions are: 1) Are residential flows an important source of PFAS to participating POTWs, and 2) can specific industries be identified as discharging a higher-than-average concentrations of PFAS to POTWs? Secondary questions and analytical methods were also summarized.

14 Discussion: SSS WDR update and response - BACWA Regulatory Program Manager shared that the formal comment letter is to be submitted by Friday April 8, 2022, so she will be seeking feedback from BACWA members in March. There are workshops next week. RPM to share comments and give an update at the March meeting.

OPERATIONAL

15 Discussion: FY23 Draft Budget - BACWA Executive Director shared slides to review the draft FY23 budget. Revenues and expense line items were reviewed with the group. BACWA ED asked for feedback. BACWA Executive Director asked the group if they were supportive of the increase in budget to the Recycled Water Committee and the Enhanced CASA Support for ACE expense changes. BACWA Executive Director shared additional slides to summarize BACWA's financial structure and health. General discussion followed.

Action item: BACWA Executive Director to update FY23 draft budget with suggestions received from the group.

16 Informational: BACC Update - BACWA Assistant Executive Director shared that the BACC bid will be opened via Planetbids.com on Thursday February 24th at 4pm. After that BACWA AED will spend a few weeks reviewing the documents and preparing the awards. General discussion followed.

17 Discussion: 2022 Annual Meeting Program and logistics - BACWA Executive Director shared a slide that outlined the proposed annual meeting program. Group discussed schedule and agreed on no breakfast, a longer coffee break and lunch hour while finishing at 3:15pm. Group would like coffee service in the morning from 8:30-9:00 am and they would like the annual meeting recorded.

Action item: BACWA Executive Director to present final agenda at the March meeting.

18 Informational: Kickoff of Bruce Wolfe memorial scholarship - BACWA Executive Director and Jackie Zipkin discussed the kickoff and promotion of the Bruce Wolfe Memorial Scholarship.

REPORTS

19 Committee Reports - Committee reports are in the packet.

20 Member highlights - EBMUD nominated BACWA and the Regional Water Board for a NACWA award for the Chlorine Basin Plan Amendment. City of San Jose's wastewater surveillance efforts for COVID was featured on NBC local and national news. General discussion followed about COVID, PFAS legislation in California and other states, and return to work and hybrid work policies.

21 Executive Director Report - Report is in the packet.

22 Board Calendar and Action Items - Items are in the packet.

23 Regulatory Program Manager Report - Report is in the packet.

24 Other BACWA Representative Reports

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

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

c. Summit Partners Lorien Fono; Amit Mutsuddy

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 GroupJackie Zipkin

v. California Water Quality Monitoring Council Lorien Fono

25 **SUGGESTIONS FOR FUTURE AGENDA ITEMS**

NEXT MEETING

The next meeting of the Board is scheduled for March 18, 2022

ADJOURNMENT **1:21 PM**

February 17, 2022

MEMO TO**:** Bay Area Clean Water Agencies Executive Board

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

SUBJECT: Seventh 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 January 31, 2022** (Seven 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),
- Water/Wastewater Operator Training (WOT),

Houck, Matt

From: Feldman-Crough, Samuel
Sent: Thursday, February 17, 2022 11:56 AM
To: Houck, Matt
Subject: RE: January 2022 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: Thursday, February 17, 2022 11:32 AM
To: Feldman-Crough, Samuel <samuel.feldman@ebmud.com>
Subject: January 2022 Treasurer's Report

Hi Samuel,

Please approve BACWA – January 2022 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). As of October 31st, 2021, revenues are recognized when billed, not when payments are received.

BACWA Fund: This fund provides the resources for BACWA staff, its committees, and other administrative needs. The ending fund balance on January 31, 2022, was $741,076 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. $372,458 of the ending fund balance is shown on the BACWA Fund & Investments Balance Report January 31, 2022, 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 $167,006 (i.e., actual fund balance of $368,618 less target reserves) as January 31, 2022.

CBC Fund: This fund provides the resources for completing special investigations as well as meeting regulatory requirements. The ending fund balance on January 31, 2022, was $2,284,306 which is higher than the target reserve of $1,000,000. $571,606 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 $712,700 (i.e., actual fund balance of $1,712,700 less target reserves) as of January 31, 2022. As directed by the BACWA Executive Board, the CBC fund has diminished over time due to BACWA's ongoing funding of the NMS program to comply with the Nutrient Watershed Permit.

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

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

Revenues as of January 31, 2022 (58% of the FY) are at 98%

Expenses as of January 31, 2022 (58% of the FY) are at 68%.

FY 2022
BACWA BUDGET to ACTUAL

BACWA BAY AREA CLEAN WATER AGENCIES

BACWA FY22 BUDGET	*Line Item Description*	FY 2022 Budget	Projected Revenue as of Jan 2022 Changes from budget in blue	Actual Jan 2022	Actual % of Budget Jan 2022	Variance	NOTES
REVENUES & FUNDING							
Dues	Principals' Contributions	$516,909	$516,909	$516,910	100%	$1	FY22: no increase. 5 @ $103,382
	Associate & Affiliate Contributions	$187,793	$187,793	$183,175	98%	-$4,618	FY22: no increase. 13 Assoc: $8,364; 45 Affiliate: $1,675.
Fees	Clean Bay Collaborative	$675,000	$675,000	$675,000	100%	$0	Prin: $450,000; Assoc/Affil: $225,000
	Nutrient Surcharge	$1,700,000	$1,700,000	$1,699,999	100%	-$1	See Nutrient Surcharge Spreadsheet
	Voluntary Nutrient Contributions	$0	$0	$0	0%	$0	
Other Receipts	AIR Non-Member	$7,075	$7,075	$7,074	100%	-$1	no increase (Santa Rosa)
	BAPPG Non-Members	$3,954	$3,954	$3,954	100%	$0	no increase (Sta Rosa, Sac Reg'l, Vacaville) $1,292/each
	Other	$0	$0	$3,601		$3,601	BAWSCA membership and Scottish Rite Refund
Fund Transfer	Special Program Admin Fees (WOT)	$5,202	$5,202	$2,601	50%	-$2,601	FY22: no increase
	Special Program Admin Fees (BACC)	$27,200	$27,200	$0	0%	-$27,200	400 hours of AED support $68 / hr
	Special Program Admin Fees (BABC)	$6,000	$6,000	$2,051	34%	-$3,949	ED, AED and RPM support
Interest Income	LAIF	$20,000	$10,000	$4,528	23%	-$15,472	BACWA, Legal, & CBC Funds invested in LAIF, LAIF yields lower than anticipated
	Higher Yield Investments						
	Total Revenue	**$3,149,133**	**$3,139,133**	**$3,098,893**	**98.40%**	**-$50,240**	

BACWA FY22 BUDGET	*Line Item Description*	FY 2022 Budget	Projected Expense as of Jan 2022 Changes from budget in blue	Actual Jan 2022	Actual % of Budget Jan 2022	Variance	NOTES
EXPENSES							
Labor							
	Executive Director	$190,000	$190,000	$95,000	50%	-$95,000	No change from FY20/FY21 budget
	Assistant Executive Director	$108,800	$108,800	$40,396	37%	-$68,404	2.0% CPI (SF Bay Metro Area Dec 2020); $68/hour; Reflects 1600 hours (incl. 400 hours for BACC)
	Regulatory Program Manager	$127,400	$127,400	$47,464	37%	-$79,936	$98/hour, Reflects 1300 hours
	Total	**$426,200**	**$426,200**	**$182,860**	**43%**	**-$243,340**	
Administration							
	EBMUD Financial Services	$42,448	$42,448	$10,097	24%	-$32,351	No change from FY20/21 budget
	Auditing Services	$5,345	$5,345	$0	0%	-$5,345	Finanical Auditors through EBMUD; per auditor rate schedule
	Administrative Expenses	$7,959	$7,959	$24	0%	-$7,935	No change from FY20/21 budget
	Insurance	$5,071	$7,072	$7,072	139%	$2,001	2% increase over FY21 actual, reflects actual cost
	Total	**$60,823**	**$62,824**	**$17,193**	**28%**	**-$43,630**	
Meetings							
	EB Meetings	$2,653	$2,653	$335	13%	-$2,319	No change from FY20/21 budget
	Annual Meeting	$14,369	$14,369	$0	0%	-$14,369	No change from FY20/21 budget
	Pardee	$6,537	$648	$648	10%	-$5,889	No change from FY20/21 budget
	Misc. Meetings	$5,306	$5,306	$585	11%	-$4,721	No change from FY20/21 budget
	Total	**$28,865**	**$22,976**	**$1,568**	**5%**	**-$27,297**	
Communication							
	Website Hosting	$700	$700	$0	0%	-$700	Website hosting $600, Go Daddy domain registration $100
	File Storage	$765	$765	$720	94%	-$45	No change from FY20/21 budget, box.net
	Website Development/Maintenance	$1,530	$1,530	$770	50%	-$760	No change from FY20/21 budget
	IT Support	$2,652	$2,652	$0	0%	-$2,652	No change from FY20/21 budget
	Other Commun	$1,785	$1,785	$704	39%	-$1,081	No change from FY20/21 budget; MS Exchange, Survey Monkey, PollEv, Zoom, Netfile
	Total	**$7,432**	**$7,432**	**$2,194**	**30%**	**-$5,238**	
Legal							
	Regulatory Support	$2,815	$2,815	$0	0%	-$2,815	2% increase, Downey Brand LLP

FY 2022
BACWA BUDGET to ACTUAL

EXPENSES							
	Executive Board Support	$2,264	$2,264	$120	5%	-$2,144	2% increase, Day Carter & Murphy LLP
	Total	**$5,079**	**$5,079**	**$120**	**2%**	**-$4,959**	
Committees							
	AIR	$76,000	$76,000	$42,506	56%	-$33,494	$75k consulting support, $1k misc expenses. Carollo Engineers
	BAPPG	$130,000	$130,000	$48,847	38%	-$81,153	Includes CPSC @ $10,000, OWOW @ $10,000, and Pest. Reg Spt. @ $60,000
	Biosolids Committee	$0	$0	$0		$0	
	Collections System	$1,000	$0	$0	0%	-$1,000	
	InfoShare Groups	$1,750	$0	$0	0%	-$1,750	Funds for 2 workgroups ($750 for Asset Mgmt - new in FY21; $1,000 for O&M)
	Laboratory Committee	$1,000	$1,000	$1,000	100%	$0	
	Permits Committee	$1,300	$0	$20	2%	-$1,280	All meetings moved to include lunch hour for commuting purposes
	Pretreatment	$1,000	$0	$0	0%	-$1,000	
	Recycled Water Committee	$1,000	$0	$0	0%	-$1,000	
	Misc Committee Support	$45,000	$13,600	$1,324	3%	-$43,676	Lab Committee TNI Training; Assistance for SSS WDR Comments
	Manager's Roundtable	$1,000	$0	$0	0%	-$1,000	
	Total	**$259,050**	**$220,600**	**$93,697**	**36%**	**-$165,353**	
Collaboratives							
	Collaboratives						
	State of the Estuary (SFEP-biennial)	$0	$0	$0	0%	$0	Biennial in Odd Fiscal Years. (Paid bienniely in odd years for even year conference)
	Arleen Navarret Award	$2,500	$2,500	$0	0%	-$2,500	Biennial in Even Fiscal Years. Award amount increased in FY20
	BayCAN	$5,000	$5,000	$0	0%	-$5,000	New in FY22
	Stanford ERC (ReNUWIt)	$10,000	$0	$0	0%	-$10,000	Renuwit is coming to an end, no invoice this year
	Misc	$1,500	$5,000	$5,000	333%	$3,500	NBWA, Support for One Water
	Total	**$19,000**	**$12,500**	**$5,000**	**26%**	**-$14,000**	
Other							
	Unbudgeted Items						
	Other	$0	$0	$0	0%	$0	
		$0		**$0**	**0%**	**$0**	
Tech Support							
	Technical Support						
	Nutrients						
	Watershed	$2,600,000	$2,200,000	$2,200,000	85%	-$400,000	Advance funding for 2nd Watershed Permit Science Studies. No advance funding was sent this fiscal year.
	NMS Voluntary Contributions	$0	$0	$0	0%	$0	
	Additional work under permit	$100,000	$100,000	$0	0%	-$100,000	Includes HDR PO for $225k spread out over FY20-24.
	Regional Study on Nature based systems	$248,811	$248,811	$13,707	6%	-$235,104	SFEI PO for $500K, expires 6/30/2022
	Regional Recycling Evaluation	$63,525	$63,525	$0	0%	-$63,525	HDR PO for $154K FY20-24
	Nutrient Workshop(s)	$0	$0	$0	0%	$0	Pilot Studies/Plant Review/Innovative Technologies
	NMS Reviewer	$50,000	$50,000	$9,000	18%	-$41,000	
	General Tech Support	$100,000	$25,000	$0	0%	-$100,000	AB617 emission factors, nutrient technical review, other nutrient support. Support for state ACE engagement.
	CEC Investigations	$140,000	$140,000	$43,330	31%	-$96,670	PFAS Study Phase II
	Risk Reduction	$7,500	$12,500	$0	0%	-$7,500	APA FSS completed $12,500 contract in FY20, CIEA will complete $12,500 contract in FY22
	Total	**$3,309,836**	**$2,839,836**	**$2,266,037**	**68%**	**-$1,043,799**	
	TOTAL EXPENSES	**$4,116,285**	**$3,597,447**	**$2,568,669**	**62.40%**	**-$1,547,616**	
	PROJECTED EXPENSE DEVIATION FROM BUDGET		**-$518,838**				
	NET INCOME BEFORE TRANSFERS	**-$967,152**	**-$458,314**				
	TRANSFERS FROM RESERVES	**$967,152**	**$458,314**				aligns with strategy of drawing down reserves to lessen impact of Nutrient Surcharge
	NET INCOME AFTER TRANSFERS	**$0**	**$0**				
	TOTAL OPERATING BUDGET	**$806,449**					
	OPERATING RESERVE	**$201,612**					

BACWA Fund Report as of January 31, 2022

BACWA FUND BALANCES - DATA PROVIDED BY ACCOUNTING DEPT.

DEPTID	DESCRIPTION	FISCAL YEAR BEGINNING FUND BALANCE	TOTAL BILLED REVENUE TO-DATE	TOTAL DISBURSEMENTS TO-DATE	MONTH-ENDING FUND BALANCE	OUTSTANDING ENCUMBRANCES	MONTH-END UNOBLIGATED FUND BALANCE
600	BACWA	1,320,542	720,707	1,300,173	741,076	372,458	368,618
604	LEGAL RSRV	300,000	-	-	300,000	-	300,000
605	CBC	1,172,157	3,378,187	2,266,038	2,284,306	571,606	1,712,700
	SUBTOTAL 1	*2,792,699*	*4,098,894*	*3,566,211*	*3,325,382*	*944,064*	*2,381,318*
602	BABC	*112,737*	85,800	68,129	130,408	*53,922*	76,486
606	BACC	*29,091*	-	*46,156*	(17,065)	*18,785*	(35,850)
607	BACC LEGAL RSRV	-	*30,000*	-	30,000	-	30,000
610	WOT	275,143	-	2,601	272,542	-	272,542
	SUBTOTAL 2	*416,971*	*115,800*	*116,886*	*415,885*	*72,707*	*343,178*
	GRAND TOTAL	**3,209,670**	**4,214,694**	**3,683,097**	**3,741,267**	**1,016,771**	**2,724,496**

*Begginning fund balance adjusted October 2021 due to change in reported accounting basis.

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 BILLED REVENUE TO-DATE	TOTAL DISBURSEMENTS TO-DATE	MONTH-ENDING FUND BALANCE	RECONCILIATION TO FINANCIAL STATEMENTS A/R	RECONCILIATION TO FINANCIAL STATEMENTS A/P	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	1,320,542	720,707	1,300,173	741,076	(117,848)	5,254	628,482	628,482	-	0%	-		priority # 3 for allocation
804	LEGAL RSRV	300,000	-	-	300,000	-	-	300,000	-	300,000	13%	-		priority # 1 for allocation
805	CBC	1,172,157	3,378,187	2,266,038	2,284,306	(320,307)	1,200,000	3,163,999	1,201,399	1,962,600	87%	-		priority # 2 for allocation
	SUBTOTAL 1	2,792,699	4,098,894	3,566,211	3,325,382	(438,155)	1,205,254	4,092,481	1,829,881	2,262,600	100%	-		
802	BABC	112,737	85,800	68,129	130,408	(15,500)	-	114,908	114,908	-	0%	-		pass-through funds, no allocation
806	BACC	29,091	-	46,156	(17,065)	-	-	(17,065)	(17,065)	-	0%	-		
807	BACC LEGAL RSRV	-	30,000	-	30,000	-	-	30,000	30,000	-	0%	-		
810	WOT	275,143	-	2,601	272,542	-	-	272,542	272,542	-	0%	-		pass-through funds, no allocation
	SUBTOTAL 2	416,971	115,800	116,886	415,885	(15,500)	-	400,385	400,385	-	0%	-		
	GRAND TOTAL	**3,209,670**	**4,214,694**	**3,683,097**	**3,741,267**	**(453,655)**	**1,205,254**	**4,492,866**	**2,230,266**	**2,262,600**	**-**			
						-	-	-	-					

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

Reconciliation to Trial Balance

Per Report above:			STB	14930	2,262,600	
General	4,098,894		STB	15050	2,230,266	
WOT, BABC, & BACC	115,800				**4,492,866**	-
PROP	-		STB	16300	453,655	
subtotal	**4,214,694**		STB	21350	(1,205,254)	
					3,741,267	-

Trial Balance Revenue Accounts

40100	Interest	(4,528)
40101	Mem Contrib	(1,277,710)
40102	Transfer	(1,034,652)
40103	Assoc Contrib	(183,175)
40104	Other	(1,714,629)
47310	State Grant	-
47320	Grant Retention	-
subtotal		**(4,214,694)**
Difference		**-**

BACWA Revenue Report as of January 31, 2022

Cost Center Code	Cost Center Description	Program Segment Description	Program Segment Value	Amended Budget	Current Period	FY22 - Year to Date	Unobligated
600	Bay Area Clean Water Agencies	BABC - AED and RPM Support	6200	(6,000.00)	(2,051.30)	(2,051.30)	3,948.70
		BACC - AED Support	6199	(27,200.00)	-	-	27,200.00
		BDO Affil/CS/Assoc Dues	6104	-	-	(38,087.00)	(38,087.00)
		BDO Affiliate/Associate Dues	6103	-	-	(39,295.50)	(39,295.50)
		BDO Assoc.&Affiliate Contr	6102	(187,793.00)	-	(105,792.36)	82,000.64
		BDO Fund Transfers	6141	(5,202.00)	(2,601.00)	(2,601.00)	2,601.00
		BDO Member Contributions	6101	(516,909.00)	-	(516,910.00)	(1.00)
		BDO Non-Member Contr AIR	6136	(7,075.00)	-	(7,074.72)	0.28
		BDO Non-Member Contr BAPPG	6135	(3,954.00)	-	(3,953.52)	0.48
		BDO Other Receipts	6105	-	-	(1,000.00)	(1,000.00)
		BDO Other Receipts (Misc)	6140	-	-	(2,601.00)	(2,601.00)
		BDO- Interest Income from LAIF	6142	(20,000.00)	(169.31)	(1,340.80)	18,659.20
		BDO-Alternative Investment Inc	6143	-	-	-	-
600 Total				**(774,133.00)**	**(4,821.61)**	**(720,707.20)**	**53,425.80**
602	Bay Area Biosolids Coalition	BDO Fund Transfers	6141		-	-	-
		BDO Member Contributions	6101		-	(85,800.00)	(85,800.00)
602 Total				**-**	**-**	**(85,800.00)**	**(85,800.00)**
605	Clean Bay Collaborative	BDO Fund Transfers	6141	-	-	(1,000,000.00)	(1,000,000.00)
		BDO Member Contributions	6101	(675,000.00)	-	(675,000.00)	-
		BDO Other Receipts	6105	(1,700,000.00)	-	(1,699,999.00)	1.00
		BDO- Interest Income from LAIF	6142	-	(1,133.06)	(3,187.57)	(3,187.57)
605 Total				**(2,375,000.00)**	**(1,133.06)**	**(3,378,186.57)**	**(1,003,186.57)**
606	Bay Area Chemical Consortium	BDO Member Contributions	6101	-	-	-	-
606 Total				**-**	**-**	**-**	**-**
607	BACC Legal RSRV	BDO Fund Transfers	6141	-	-	(30,000.00)	(30,000.00)
607 Total				**-**	**-**	**(30,000.00)**	**(30,000.00)**
Grand Total				**(3,149,133.00)**	**(5,954.67)**	**(4,214,693.77)**	**(1,065,560.77)**

BACWA Expense Detail Report for January 31, 2022

Cost Center Code	Program Segment Description	Program Segment Value	Balance Type	Current Period Activity	FY22 - Year to Date
600	AIR-Air Issues&Regulation Grp	6153	Actual	3,375.00	42,506.25
			Encumbrance	(3,375.00)	32,493.75
			Obligated	-	75,000.00
	AS-Assistant Executive Directo	6175	Actual	4,760.00	40,936.00
			Encumbrance	(4,760.00)	67,864.00
			Obligated	-	108,800.00
	AS-Audit Services	6180	Actual	-	-
			Encumbrance	-	5,345.00
			Obligated	-	5,345.00
	AS-BACWA Admin Expense	6173	Actual	24.24	24.24
			Obligated	24.24	24.24
	AS-EBMUD Financial Services	6176	Actual	-	10,097.44
			Encumbrance	-	32,350.56
			Obligated	-	42,448.00
	AS-Executive Director	6174	Actual	15,833.33	94,999.98
			Encumbrance	(15,833.33)	95,000.02
			Obligated	-	190,000.00
	AS-Insurance	6177	Actual	-	7,072.34
			Obligated	-	7,072.34
	AS-Regulatory Program Manager	6179	Actual	9,212.00	47,464.00
			Encumbrance	(9,212.00)	67,399.50
			Obligated	-	114,863.50
	Administrative Support	6178	Actual	-	1,000,000.00
			Obligated	-	1,000,000.00
	BC-BAPPG	6152	Actual	5,008.48	45,847.64
			Encumbrance	(5,008.48)	62,037.96
			Obligated	-	107,885.60
	BC-InfoShare Groups	6148	Actual	-	-
			Obligated	-	-
	BC-Laboratory Committee	6149	Actual	-	1,000.00
			Encumbrance	-	-
			Obligated	-	1,000.00
	BC-Manager's Roundtable	6154	Actual	-	-
			Obligated	-	-
	BC-Miscellaneous Committee Sup	6150	Actual	780.00	1,323.75
			Encumbrance	(780.00)	2,356.25
			Obligated	-	3,680.00
	BC-Permit Committee	6145	Actual	20.00	20.00
			Obligated	20.00	20.00
	BC-Pretreatment Committee	6151	Actual	-	-
			Obligated	-	-
	BC-Water Recycling Committee	6146	Actual	-	-
			Obligated	-	-
	CAR-BACWA File Storage	6165	Actual	-	720.00
			Obligated	-	720.00
	CAR-BACWA IT Software	6167	Actual	-	703.79
			Obligated	-	703.79
	CAR-BACWA IT Support	6166	Actual	-	-
			Encumbrance	-	2,652.00
			Obligated	-	2,652.00
	CAR-BACWA Website Dev/Maint	6163	Actual	-	770.00
			Obligated	-	770.00
	CAR-BACWA Website Hosting	6164	Actual	-	-
			Obligated	-	-
	CAS-Arleen Navaret Award	6160	Actual	-	-
			Obligated	-	-
	CAS-Misc Collaborative Sup	6162	Actual	5,000.00	5,000.00

Cost Center Code	Program Segment Description	Program Segment Value	Balance Type	Current Period Activity	FY22 - Year to Date
			Obligated	5,000.00	5,000.00
	CAS-Stanford ERC	6159	Actual	-	-
			Obligated	-	-
	GBS-Meeting Support-Annual	6170	Actual	-	-
			Obligated	-	-
	GBS-Meeting Support-Exec Bd	6169	Actual	-	334.50
			Obligated	-	334.50
	GBS-Meeting Support-Misc	6172	Actual	-	585.00
			Obligated	-	585.00
	GBS-Meeting Support-Pardee	6171	Actual	-	648.12
			Obligated	-	648.12
	LS-Executive Board Support	6156	Actual	-	120.00
			Encumbrance	-	2,144.00
			Obligated	-	2,264.00
	LS-Regulatory Support	6155	Actual	-	-
			Encumbrance	-	2,815.00
			Obligated	-	2,815.00
	WQA-CE-Nature Based Solutions	6196	Actual	-	-
			Obligated	-	-
	Write-Off Doubtful Accounts	6208	Actual	-	-
			Obligated	-	-
600 Total			**Actual**	**44,013.05**	**1,300,173.05**
600 Total			**Encumbrance**	**(38,968.81)**	**372,458.04**
600 Total			**Obligated**	**5,044.24**	**1,672,631.09**
602	AS-Assistant Executive Directo	6175	Actual	-	-
			Obligated	-	-
	AS-Regulatory Program Manager	6179	Actual	-	-
			Obligated	-	-
	Academia Research & Development	6203	Actual	-	-
			Obligated	-	-
	Administrative Support	6178	Actual	-	-
			Obligated	-	-
	BDO Contract Expenses	6186	Actual	-	-
			Obligated	-	-
	Collateral Development	6197	Actual	-	-
			Obligated	-	-
	Program Manager Expense	6202	Actual	4,834.30	68,129.30
			Encumbrance	(2,783.00)	53,922.00
			Obligated	2,051.30	122,051.30
	Technology Research & Development	6206	Actual	-	-
			Obligated	-	-
602 Total			**Actual**	**4,834.30**	**68,129.30**
602 Total			**Encumbrance**	**(2,783.00)**	**53,922.00**
602 Total			**Obligated**	**2,051.30**	**122,051.30**
605	Recycled Water Evaluation	6198	Actual	-	-
			Encumbrance	-	-
			Obligated	-	-
	WQA - CEC Investigations	6201	Actual	-	43,330.95
			Encumbrance	203,000.00	220,088.80
			Obligated	203,000.00	263,419.75
	WQA-CE Addl Work Under Permit	6191	Actual	-	-
			Encumbrance	-	-
			Obligated	-	-
	WQA-CE Risk Reduction	6190	Actual	-	-
			Encumbrance	-	25,000.00
			Obligated	-	25,000.00
	WQA-CE Voluntary Nutr Contrib	6193	Actual	-	-
			Obligated	-	-
	WQA-CE-Nature Based Solutions	6196	Actual	-	13,707.00
			Encumbrance	-	285,517.50

Cost Center Code	Program Segment Description	Program Segment Value	Balance Type	Current Period Activity	FY22 - Year to Date
			Obligated	-	299,224.50
	WQA-CE-Nutrient WS Permit Comm	6188	Actual	1,200,000.00	2,200,000.00
			Obligated	1,200,000.00	2,200,000.00
	WQA-CE-Technical Support	6181	Actual	-	-
			Obligated	-	-
	WQA-NMSReviewer	6205	Actual	-	9,000.00
			Encumbrance	-	41,000.00
			Obligated	-	50,000.00
605 Total			**Actual**	**1,200,000.00**	**2,266,037.95**
605 Total			**Encumbrance**	**203,000.00**	**571,606.30**
605 Total			**Obligated**	**1,403,000.00**	**2,837,644.25**
606	Administrative Support	6178	Actual	4,936.74	16,156.74
			Encumbrance	(3,995.00)	18,785.00
			Obligated	941.74	34,941.74
	BDO Fund Transfers	6141	Actual	-	30,000.00
			Obligated	-	30,000.00
606 Total			**Actual**	**4,936.74**	**46,156.74**
606 Total			**Encumbrance**	**(3,995.00)**	**18,785.00**
606 Total			**Obligated**	**941.74**	**64,941.74**
610	Administrative Support	6178	Actual	2,601.	2,601.
			Obligated	2,601.	2,601.
	BDO Contract Expenses	6186	Actual	0.	0.
			Obligated	0.	0.
610 Total			**Actual**	**2,601.00**	**2,601.00**
610 Total			**Encumbrance**	**-**	**-**
610 Total			**Obligated**	**2,601.00**	**2,601.00**
Grand Total Actual				**1,256,385.09**	**3,683,098.04**
Grand Total Encumbrance				**157,253.19**	**1,016,771.34**
Grand Total Obligated				**1,413,638.28**	**4,699,869.38**

EXECUTIVE BOARD AUTHORIZATION REQUEST

AGENDA NO.: 4

MEETING DATE: March 18, 2022

TITLE: Request for BACWA Executive Board Approval to Execute FY22 Agreement with SGS AXYS for Phase 2: PFAS Sample Chemical Analysis, not to exceed $98,220.

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

RECOMMENDED ACTION

Authorize the execution of an agreement with SGS AXYS to perform analysis of Per- and Polyfluoroalkyl Substances (PFAS) Monitoring for Bay Area Publicly-Owned Treatment Works, Phase 1 in an amount not to exceed $98,220.

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.

Phase 1 of the study focused on screening representative POTWs, and was completed in Fall 2021. Phase 2 will focus on answering questions about upstream sources of PFAS to seven facilities, as well as transformations within those facilities. The BACWA Executive Board approved a contract with SFEI at the November, 2021 Board meeting to develop and manage Phase 2 of the study.

In Phase 1 of the study, SFEI and BACWA staff worked together on an informal solicitation for a contract laboratory to carry out the chemical analysis of PFAS compounds as described in the sampling plan. Two laboratories were contacted, based on their reputation among PFAS experts, and they provided estimates based on a proposed sample list**.** SGS AXYS was selected because they were slightly lower cost, and because they support a longer analyte list which includes additional PFAS compounds not available from other labs. They are also familiar with SFEI's data management services and reporting to CEDEN. As they were successful at completing the Phase 1 analyses, SFEI has recommended continuing to work with SGS AXYS in Phase 2 of the study.

The attached scope of work will provide shipping of sampling materials to facilities participating in the Per- and Polyfluoroalkyl Substances Monitoring for Bay Area Publicly-Owned Treatment Works, Phase 1, and perform the chemical analysis. For more details, please see the Statement of Work and Budget provided in Exhibit A and Exhibit B, respectively, of the attached contract.

FISCAL IMPACT

The FY22 April 17, 2021 budget includes a line item for CEC Investigation, which will fund the analytical costs associated with the study.

ALTERNATIVES

1. Select another consultant to conduct the work: This alternative is not recommended since SGS AXYS has a strong track record in collaborating with SFEI on CEC studies, and analysis costs were slightly below that of another highly reputable contract laboratory. They successfully completed Phase 1 of the PFAS Study and are recommended by SFEI for Phase 2.

Attachments: FY21 Contract with SGS AXYS for $60,932.
Exhibit A Statement of Work
Exhibit B Budget

Approved: _____ Date: _March 18, 2022_ _
Amit Mutsuddy, Chair,
BACWA Executive Board

BAY AREA CLEAN WATER AGENCIES PROFESSIONAL SERVICES CONTRACT

This PROFESSIONAL SERVICES CONTRACT, effective March 18, 2022, is between Bay Area Clean Water Agencies ("BACWA"), a joint powers agency which exists as a public entity separate and apart from its Member Agencies, created January 4, 1984 by a Joint Powers Agreement between Central Contra Costa Sanitary District, East Bay Dischargers Association, East Bay Municipal Utility District, the City and County of San Francisco and the City of San Jose, with a mailing address of P.O. Box 24055, MS 702, Oakland, CA 94623, and SGS AXYS Analytical Services Ltd. ("Consultant"), a Foreign-Owned corporation doing business at 2045 Mills Road West Sidney, BC V8L 5X2 for professional services as described in any Exhibit A attached hereto.

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

Description and Standard of Services to be Performed

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

Payment for Services

6. BACWA will pay Consultant based on the lump sum amounts for the various tasks shown in the scope of work in Exhibit A, up to a maximum amount payable of $98,220. Consultant will not exceed the maximum amount payable without obtaining prior written approval from BACWA.
7. Consultant shall submit invoices quarterly (March, June, September, December), or upon completion of major project milestones, with progress made on each task as indicated by a percent of task completed. Payment will be made based on the lump sum for the task and the percentage of the task completed, as listed in Exhibit B. Invoices shall include the lump sum amount requested and a brief description of the work performed.
8. Payments under this Contract will be due thirty (30) days after BACWA's receipt of invoices. BACWA may withhold from any progress or final payment any damages, backcharges or claims incurred or anticipated by BACWA to the extent caused by Consultant.

Document Ownership and Retention

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

Indemnification

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

Insurance

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

Assignment

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

Independent Contractor

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

Termination of Contract; Suspension of Services

15. This contract shall automatically terminate on June 30, 2023. Either party may also terminate this Contract in whole or in part at any time for its convenience. For a termination for convenience, the termination will be effective thirty (30) days following receipt of a written notice of termination by one party from the other. BACWA may terminate this Contract in whole or in part for cause, in which event the termination will be effective ten (10) days after Consultant's receipt of BACWA's written notice and Consultant's failure during that period to cure the default.

Dispute Resolution

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

Severability

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

Survival

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

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

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

Exhibit A – Statement of Work
Exhibit B - Budget

CONSULTANT: SGS AXYS Analytical Services Ltd.

2045 Mills Rd.

Street Address

Sidney, BC Canada V8L 5X2

City, State, Zip Code

98-0164200

Tax Identification No.

Consultant Signature

Date

Shea Hewage, General Manager – SGS AXYS Analytical Services Ltd.

Name, Title

BACWA Signature	Date
Amit Mutsuddy, BACWA Executive Board Chair	
Name, Title	

Exhibit A: Statement of Work

PROJECT MANAGEMENT
The work will be under the direction of CONTRACTOR's Principal Investigator as shown below.

Questions regarding technical matters relating to this contract should be addressed to:

Agency	**SGS AXYS Analytical Services Ltd. (SGS AXYS)**	**SFEI/ASC**
Name	Sean Campbell	Diana Lin
Title	Principal Investigator	Principal Investigator
Address	2045 Mills Rd.	4911 Central Ave.
	Sidney, BC Canada V8L 5X2	Richmond, CA 94804
Phone	250-655-5834	510-746-7385
Email	sean.campbell@sgs.com	diana@sfei.org

No substitution may be made for CONTRACTOR's principal investigator or technical matter contact without the prior written concurrence of SFEI/ASC and BACWA.

The contacts for business matters relating to the work performed hereunder are:

Agency	**SGS AXYS**	**BACWA**
Name	Richard Grace	Lorien Fono
Title	Director - Sales, Marketing, and Service	Executive Director
Address	2045 Mills Rd.	
	Sidney, BC Canada V8L 5X2	
Phone	905-484-2314	
Email	richard.grace@sgs.com	

Exhibit A – Statement of Work

PROJECT NAME
Per- and Polyfluoroalkyl Substances Monitoring for Bay Area Publicly-Owned Treatment Works, Phase 2.

PROJECT DESCRIPTION
In March 2022, SFEI will coordinate with not more than seven Bay Area Clean Water Agency Publicly-Owned Treatment Works members to collect wastewater samples for per- and polyfluoroalkyl substances (PFAS). Wastewater samples will include influent, effluent, biosolids (solid QC matrix, includes sludges), as well as upstream sewershed (aqueous samples similar to influents) and foodwaste (likley to be solid QC matrix, though may be biological tissue). The CONTRACTOR shall perform laboratory analyses on the samples as described in the Work Tasks below.

1. **Provide cleaned/certified containers and supplies**

The CONTRACTOR shall coordinate with the SFEI regarding sample containers and sample handling instructions (contact Diana Lin, (510)746-7385 or diana@sfei.org).

The CONTRACTOR shall be responsible for supplying pre-cleaned/certified containers to each participating facility (contact name, address, phone, and email will be provided by SFEI)

2. Perform laboratory analysis on environmental samples

The CONTRACTOR shall analyze the number and type of environmental and quality assurance/quality control samples as specified in the budget table in Exhibit B.

3. Follow quality assurance and quality control and procedures for the RMP

The CONTRACTOR shall follow all the field sampling, quality assurance/quality control, storage/archiving and waste disposal protocols specified in Exhibit C.

4. Report results using California Environmental Data Exchange Network templates

The CONTRACTOR shall report analytical results, including associated quality control sample results and associated metadata, according to the protocols in Exhibit C. The results shall be reported to SFEI within 8 weeks of when the CONTRACTOR receives the last field sample and receives approval from SFEI to begin analyses.

Exhibit B: Budget

PFAS Monitoring in Bay Area Publicly-Owned Treatment Works, Phase 2 (Q2 2022)

Service[1]	Sample Type	Number of Field Samples/ Supplies	Number of Billable QA/QC Samples[2]	Unit Cost	Budget
BACWA PFAS Study - Phase 2					
Laboratory Analyses1					
PFAS target analysis, MLA-110	Influent/ Sewershed	75		$385	$28,875
PFAS target analysis, MSU 110	Influent			$385	$0
PFAS target analysis, MLA-110	Effluent	10		$385	$3,850
PFAS target analysis, MLA-110	Groundwater	5		$385	$1,925
PFAS target analysis, MLA-110	Biosolids	20		$405	$8,100
PFAS TOP analysis, MLA-111	Influent/ Sewershed	75		$355	$26,625
PFAS TOP analysis, MLA-111	Influent			$355	$0
PFAS TOP analysis, MLA-111	Effluent	10		$355	$3,550
PFAS TOP analysis, MLA-111	Groundwater	5		$355	$1,775
PFAS TOP analysis, MLA-111	Biosolids	20		$390	$7,800
PFAS AOF analysis, MLA-119	Influent	10		$150	$1,500
PFAS AOF analysis, MLA-119	Effluent	10		$150	$1,500
Percent Solids	Biosolids	20			Included
Influent/Sewershed sample containers for target analysis (2x125 mL)	Sample containers	150			Included
Influent/Sewershed sample containers for TOP analysis (2x60 mL)	Sample containers	150			Included
Effluent/groundwater sample containers for target analysis (2x500mL)	Sample containers	15			Included
Biosolids sample containers for target and TOP analysis (250mL jar)	Sample containers	25			Included
Influent and effluent sample containers for AOF analysis (2x125 mL)	Sample containers	25			Included
Services					
Level IV data package		240		$35	$8,400
CEDEN		240		$15	$3,600

Environmental disposal fee		240		$3	$720
Total					**$98,220**

Budget Table Notes

[1]Details of the laboratory methods and target analytes to be reported are listed in Exhibit C, Section 2.

[2]In addition to any field duplicates or field blanks (which are included with the field samples), the laboratory will conduct QA/QC tests in compliance with Draft EPA method 1633 and/or Department of Defense (DoD) Quality Systems Manual dated 2021, version 5.4 as specified in Table B24. Each analytical batch is expected to include the following QA/QC samples Method Blank, Laboratory Control Sample or Ongoing Precision and Recovery Quality Control Sample, Laboratory Replicates, Matrix Spike/Matrix Spike Duplicate.

BACWA EXECUTIVE BOARD ACTION REQUEST

AGENDA NO.: 5

MEETING DATE: March 18, 2022

TITLE: Request for BACWA Executive Board Approval for Amendment #3 to the Agreement with Carollo Engineers for FY22 AIR Committee Support, Increase $10,000 to $85,000.

☐RECEIPT ☐DISCUSSION ☐RESOLUTION ☒APPROVAL

RECOMMENDED ACTION

Authorize Amendment #2 with Carollo Engineers to implement the Fiscal Year 2022 BACWA and Special Programs Budget and Workplan AIR Committee Support line item for a not to exceed amount of $85,000.

SUMMARY

The BACWA fiscal year (FY22) began July 1, 2021. The BACWA Air Issues and Regulations (AIR) committee is supported by a consultant who plans and manages meetings, provides regulatory and technical updates, and facilitates coordination between POTWs and regulators. Following the expiration of the previous support agreement, BACWA solicited proposals for FY20. A selection committee made up of BACWA members chose Carollo Engineers as the consultant who could best provide the required services, and a contract was approved at the June 17, 2019 BACWA Executive Board meeting. This amendment extends the contract for the second of a maximum of four years.

At the December 17, 2021 BACWA Executive Board meeting, staff from LACSD made an appeal to the BACWA Executive Board to increase support for statewide air, climate change, and energy (ACE) regulatory development. In recent years there has been an unprecedented surge in regulatory activity pertaining to emissions, energy and climate change issues that impacts wastewater facilities, and this is only expected to intensify in the next few years. At the February 18, 2022 BACWA Executive Board meeting, the Board considered alternatives for providing this support and gave the direction to BACWA staff to move forward with an amended contract with Carollo to enhance the scope of work on statewide ACE issues.

The amended contract would provide an additional $10K, for a total contract amount of $85,000 for Fiscal Year 2022. Additional support for this ACE issues in the next Fiscal year will be considered separately by the Board in Carollo's Fiscal Year 2023 contract. This enhanced support does not include work that would be construed as lobbying, and will not fund direct contact with any state, legislative or agency official to influence legislative or administrative action per the FPPC regulations.

FISCAL IMPACT

The funding for this contract is consistent with the Fiscal Year 2022 workplans and budget for BACWA and Special Programs. The additional $10,000 funding will be supplied through the Miscellaneous Committee support line item of the FY22 Budget.

ALTERNATIVES

1. Do not provide the enhanced support for ACE issues. This alternative is not recommended, since the regulatory development on these issues will set policies that will impact our members.
2. Provide funding for enhanced ACE support through CASA. This alternative is not recommended since BACWA would be required to register as a lobbyist employer, and would have a less direct discretion to dictate how this additional support is directed.

Attachments: FY 22 Carollo Engineers Amendment #2
Carollo Engineers, Inc. Enhanced Scope of Work
FY20 Agreement with Carollo Engineers, Inc.

March 18, 2022

Approved: _____ Date: _____

Amit Mutsuddy Chair,
BACWA Executive Board

Amend 3 Carollo

AMENDMENT NO. 3
TO AGREEMENT BETWEEN
BAY AREA CLEAN WATER AGENCIES and
Carollo Engineers
FOR
AIR Committee Support

This Amendment No. 2 is made this 18th day of March 2022, in the City of Oakland and County of Alameda, State of California, to that certain agreement of June 21, 2019 by and between Carollo Engineers and Bay Area Clean Water Agencies, (BACWA) (the "Agreement") in consideration of the covenants hereinafter set forth.

1. BACWA and Carollo Engineers agree to a new contract amount of $85,000 for AIR Committee Support for Fiscal Year 2022.

2. The contract period is unchanged at July 1, 2021 — June 30, 2022.

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

BAY AREA CLEAN WATER AGENCIES

By _____ Date March 18, 2022

Amit Mutsuddy, Chair
BACWA Executive Board

By _____ Date _____

Sarah A. Deslauriers
Carollo Engineers

BAY AREA CLEAN WATER AGENCIES
PROFESSIONAL SERVICES CONTRACT

This PROFESSIONAL SERVICES CONTRACT, effective July 1, 2019, is between Bay Area Clean Water Agencies ("BACWA"), a joint powers agency which exists as a public entity separate and apart from its Member Agencies, created January 4, 1984 by a Joint Powers Agreement between Central Contra Costa Sanitary District, East Bay Dischargers Association, East Bay Municipal Utility District, the City and County of San Francisco and the City of San Jose, with a mailing address of P.O. Box 24055, MS 59, Oakland, CA 94623, and Carollo Engineers, Inc. ("Consultant"), a private corporation doing business at 2700 Ygnacio Valley Road, Suite 300, Walnut Creek, CA 94598 for professional services as described in any Exhibit A attached hereto.

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

Description and Standard of Services to be Performed

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

Payment for Services

6. The contract will begin July 1, 2019. BACWA will pay Consultant based on the rates in Exhibit B, up to a maximum amount payable of $75,000.00. The term of this agreement shall not extend beyond June 30, 2020 but may be extended for additional one year terms at BACWA's discretion for an additional four years, ending June 30, 2024. If, upon reaching the end of the term of the contract, the Board elects to extend the contract, the amount of the extended contract will be negotiated at the time the contract is extended.
7. Consultant shall submit invoices monthly via email to Lorien Fono, Regulatory Program Manager, at lfono@bacwa.org. Invoices shall include the hours charged by each employee, a brief description of the work performed, and a description of costs for which Consultant seeks reimbursement and which are specified in Exhibit B.
8. Payments under this Contract will be due thirty (30) days after BACWA's receipt of invoices. BACWA may withhold from any progress or final payment any damages, backcharges or claims incurred or anticipated by BACWA to the extent caused by Consultant.

Document Ownership and Retention

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

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

Indemnification

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

Insurance

12. Consultant will purchase and maintain, at Consultant's expense, the following types of insurance, covering Consultant, its employees and agents:

    a. Workers' Compensation Insurance as required by law, subject to a waiver of subrogation in favor of BACWA;

    b. Employers Liability Insurance with a per accident value at $1,000,000, Policy Limit of $1,000,000 and Each Employee of $1,000,000, subject to a waiver of subrogation in favor of BACWA.

    c. Comprehensive General Liability Insurance covering personal injury and property damage with a combined single limit, or the equivalent, of not less than $1,000,000.00 each occurrence, $2,000,000.00 general aggregate, and naming BACWA as an additional insured.

    d. Business Automobile Liability Insurance with combined single limit coverage of not less than $1,000,000.00 aggregate for each claim, incident, or occurrence; and naming BACWA as an additional insured.

Assignment

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

Independent Contractor

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

Termination of Contract; Suspension of Services

15. This contract shall automatically terminate on June 30, 2020. Either party may also terminate this Contract in whole or in part at any time for its convenience. For a termination for convenience, the termination will be effective thirty (30) days following receipt of a written notice of termination by one party from the other. BACWA may terminate this Contract in whole or in part for cause, in which event the termination will be effective ten (10) days after Consultant's receipt of BACWA's written notice and Consultant's failure during that period to cure the default.

Dispute Resolution

16. Consultant will give prompt written notice to BACWA of any claim, dispute or other matter in question, but in no event will Consultant give such notice later than ten (10) days after Consultant's becoming aware of the event or circumstance giving rise to the claim, dispute or matter in question.

17. All claims, disputes and other matters in question between BACWA and Consultant arising out of or relating to this Contract will be subject to alternative dispute resolution. If both parties agree to arbitration it will be conducted in accordance with the Commercial Arbitration Rules of the American Arbitration Association then in effect. Notice of the demand for arbitration will be filed in writing with the other party to this Contract and with the American Arbitration Association. Any arbitration arising out of or relating to this Contract will include, by consolidation, joinder or joint filing, any other person or entity not a party to this Contract that is substantially involved in a common issue of law or fact and whose involvement in the consolidated arbitration is necessary to achieve a final resolution of a matter in controversy therein. This agreement to arbitrate will be specifically enforceable by any court with jurisdiction thereof.

18. A demand for dispute resolution by either party will be made within a reasonable time after the claim, dispute, or other matter in question has arisen, and in no event will it be made after the date when institution of court litigation based on such claim, dispute or other matter in question would be barred by the applicable period of limitations. For all claims by BACWA against Consultant, the applicable period of limitations will not commence to run, and any alleged cause of action will not be deemed to have accrued (whether such action is based on negligence, strict liability, indemnity, intentional tort or other tort, breach of contract, breach of implied or express warranty, or any other legal or equitable theory), unless and until BACWA is fully aware of all three of the following: (1) the identity of the party(ies) responsible, (2) the magnitude of the damage or injury and (3) the cause(s) of the damage or injury. The contractual limitations period and discovery rule provided herein applies in lieu of any otherwise applicable statute or related case law.

19. The failure of either party to enforce any provision of this Contract will not constitute a waiver by that party of that or any other provision of this Contract.

Severability

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

Survival

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

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

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

Exhibit A – Scope of Work
Exhibit B – Hourly Rates/Reimbursable Expenses

CONSULTANT: **CAROLLO ENGINEERS, INC.**

2700 Ygnacio Valley Road, Suite 300
Street Address

Walnut Creek, CA 94598
City, State, Zip Code

86-0899222
Tax Identification No.

Lydia Holmes 6/17/19
Consultant Signature *Date*

Lydia Holmes, Vice President
Name, Title

Sarah A. Deslauniers, Sarah A. Deslauniers, Assoc. VP, 6/17/19

June 21, 2019
BACWA Signature *Date*

Lori Schectel, BACWA Chair
Name, Title

March 14, 2022

Ms. Lorien Fono
Bay Area Clean Water Agencies
P.O. Box 24055, MS 702
Oakland, CA 94623

Subject: Scope of services and budget for providing an enhanced level of support for BACWA's Air Issues and Regulations Committee during Fiscal Years 2022 and 2023

Dear Ms. Fono:

Thank you for requesting a scope of services and budget to provide an enhanced level of support to BACWA's Air Issues and Regulations (AIR) Committee through the end of this and through the next fiscal years (2022 and 2023). As requested, Carollo Engineers (CONSULTANT) is submitting the following proposed scope of services for consideration.

SCOPE OF SERVICES

The Scope of Services as summarized in tasks below was originally developed for performing typical year-to-year activities in support of BACWA's AIR Committee. However, over the next two years there is a significant increase in demand for support to adequately respond to the California Air Resources Board's (CARB's) developing scoping plan programs and developing the proposed air toxics statewide two-step process, as well as a higher level of administrative activity on climate, air quality and energy issues underway by other regulatory agencies. The significance of these developing regulations is compounded by the fact that they threaten the implementation of other programs critical to achieving short-lived climate pollutant reduction via WWTPs and the wastewater sector's overall resilience during power outages (which is unacceptable as an essential public service provider vital to life and health).

While the high-level task descriptions remain the same, it is estimated that an additional $10,000 is needed during fiscal year 2022 and $20,000 during fiscal year 2023 to provide the needed enhanced level of coordination, verbal and written responses, and engagement in public workshops and hearings. Types of additional support services may include administrative, technician, analyst, graphics, etc.

Task 1 - Quarterly Meetings with the AIR Committee

Under this task, it is assumed we will organize at least four formal meetings with the AIR Committee in each Fiscal Year. This includes coordination of meeting locations and preparation of agendas and meeting materials (e.g., handouts and presentation slides), and following each meeting with minutes. We will support AIR Committee meetings to present information on current air issues, facilitate discussions between members, and identify follow on action items. One of these meetings will be the annual BAAQMD-BACWA meeting to address issues of concern to AIR Committee members.

Task 2 - Track and Communicate Regulatory Issues, Technical Resources, and Grant Opportunities

This task is to allow for continued monitoring of regulatory agencies involved in developing air quality and climate change regulations that may affect Bay Area WWTPs, including but not limited to the BAAQMD, the San Francisco BCDC, the California Air Resources Board, and the U.S. Environmental Protection Agency. We will also track related and relevant technical resources and grant opportunities of interest to BACWA AIR

member agencies. This task also includes preparation and distribution of informational material via e-mail to members to keep them informed of regulatory activities, and AIR Committee activities, between meetings.

Task 3 - Coordination and Communication with other WWTP Organizations and Regulators

When directed by the AIR Committee Chairs, we will participate in meetings with regulators (including BAAQMD leaders at least two times per year), participate in member or regulator workshops and hearings, draft correspondence for AIR Committee member review and approval prior to submission, and perform other related activities. We will also coordinate with other WWTP organizations on issues of common interest. The purpose of this coordination is to share/exchange useful information, identify areas of joint interest, and prepare consistent or complementary responses on key issues, where appropriate. WWTP organizations whose objectives/interests coincide with the AIR Committee include SCAP, CVCWA, CASA, WERF, and NACWA. Activities may include conference calls, meetings, and exchange of published information.

Task 4 - Response on Special Assignments (Optional or As Needed)

This task includes performing special technical assignments under the direction of the AIR Committee Chairs (i.e., as needed). Special technical assignments may include coordinating a specialty workshop for the AIR Committee or general BACWA members (e.g., Regulation 2 amendments and implementation of Rule 11-18), participating in AIR Committee strategy meetings, or performing other activities not included in Tasks 1-3.

We appreciate your consideration on this scope of services and budget and look forward to working more closely with you and your staff. Please do not hesitate to contact us if you have any questions or require additional information.

Sincerely,

CAROLLO ENGINEERS, INC.

Sarah Deslauriers, PE, ENV SP
Vice President
sdeslauriers@carollo.com
M 925-705-6404

San Francisco Bay Nutrient Management Strategy (NMS) Nutrient Technical Workgroup

date: March 10, 2022, 9:00 AM to 2:00 PM

location: Teleconference only

https://zoom.us/j/97020729296 call-in: 669 900-6833 or 253 215-8782; Meeting ID: 970 2072 9296

AGENDA

	Agenda Item	Lead	Time
1	Welcome, Introductions and Agenda Review	DS	9:00-9:05
2	Technical Updates, overview 10min overview, 10min discussion *Materials*: • see Meeting Folder, Item2 Materials (available 3/7 pm)	DS	9:05-9:25
3	Technical Update (pt 1): Field studies, results, interpretations 4 technical topics x 10min/topic; 20 min Q&A/discussion *Materials*: • See reports (links) in Table 3 FY2021 Overview/Report-Out • If there are topics you'd like to hear about, please let us know! (by 3/9)	AC, team	9:25-10:35
	Break		10:35-10:45
4	Technical Update (pt 2): Modeling 4 technical topics x 10min/topic; 20 min Q&A/discussion *Materials*: • See reports (links) in Table 3 FY2021 Overview/Report-Out • If there are topics you'd like to hear about, please let us know! (by 3/9)	team	10:45-11:55
	Break		11:55-12:25
5	FY2023 science priorities, projects 30 overview+science-priorities+trade-offs, 1hr structured discussion *Materials*: • see Meeting Folder, Item5 Materials (available 3/7 pm)	DS, team	12:25-1:55
6	Recap and Adjourn	All	1:55-2:00

BACWA
BAY AREA
CLEAN WATER
AGENCIES

February 28, 2022

SUBJECT: LETTER OF SUPPORT – Senn/Preece/Otten Prop1 Proposal

Dear Prop1 Review Committee -,

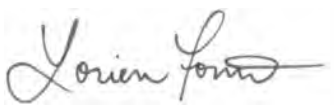
BACWA is pleased to offer support for the Prop1 proposal submitted by PIs Senn, Preece, and Otten entitled *Influence of salt pond restoration status on phytoplankton bloom dynamics and harmful algal bloom toxin risks in San Francisco Lower South Bay: Implications for planning next phases*.

BACWA is a joint powers agency whose members own and operate publicly-owned treatment works (POTWs) 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 charged with protecting the environment and public health. BACWA provides funding to the San Francisco Bay (SFB) Nutrient Management Strategy (NMS), a regional initiative for developing the science needed for informed decisions about managing nutrient loads and maintaining beneficial uses within the Bay.

We are particularly interested in this project because of its focus on investigating the potential role that restored ponds play as sources of harmful algae blooms (HABs) and related toxins in Lower South Bay. Projects funded by the NMS over the past several years have detected HABs and their toxins Bay-wide, in both water samples and biota (mussels, anchovies), and understanding the factors contributing to HABs and toxins in SFB is a NMS priority. The proposed project addresses critical knowledge and data gaps related to the emerging concern that some restored ponds may, in conjunction with elevated nutrients, contribute to SFB's HAB and toxin burden. BACWA is committed to supporting science which clarifies the relationship between harmful algal species and management actions that impact the water quality of SFB. As this proposal aligns directly with BACWA's interests, BACWA staff and staff at our member agencies will engage with this effort as stakeholders, contributing expertise in wastewater, water resources management, and wastewater treatment planning.

Please do not hesitate to contact me by email at lfono@bacwa.org or by phone at (510) 684-2993.

Sincerely,



Lorien Fono
Executive Director
Bay Area Clean Water Agencies

cc: BACWA Executive Board

BACWA
BAY AREA
CLEAN WATER
AGENCIES

February 28, 2022

SUBJECT: LETTER OF SUPPORT – Bergamaschi et al. PES Proposal

Dear USGS Priority Ecosystem Science Review Committee,

BACWA is pleased to offer support for the USGS Priority Ecosystem Science (PES) proposal submitted by Dr. Brian Bergamaschi *et al.* entitled "Toward a comprehensive picture of nutrient and phytoplankton dynamics in shallow and deep habitats across the San Francisco Bay and Estuary"

BACWA is a joint powers agency whose members own and operate publicly-owned treatment works (POTWs) 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 charged with protecting the environment and public health. BACWA provides funding to the San Francisco Bay (SFB) Nutrient Management Strategy (NMS), a regional initiative for developing the science needed for informed decisions about managing nutrient loads and maintaining beneficial uses within the Bay.

We are particularly interested in the project focus areas related to field studies targeting data collection in both shallow shoal and deep channel regions of San Francisco Bay; the analysis and synthesis of that data to characterize processes driving ecosystem responses to nutrients; and the integration of remote-sensed data to augment ship-based and mooring data. The proposed project is well-integrated with planned NMS-funded work over the next 3 years, and USGS-PES will play a critical role in expanding both data collection and data interpretation related to this important issue. BACWA is committed to the establishment of a sustainable long-term nutrient monitoring program in the SFB, and the data from this project will inform such a program's development. As this proposal aligns directly with BACWA's interests, BACWA staff and staff at our member agencies will engage with this effort as stakeholders, contributing expertise in wastewater, water resources management, and wastewater treatment planning.

Please do not hesitate to contact me by email at lfono@bacwa.org or by phone at (510) 684-2993.

Sincerely,

Lorien Fono

Lorien Fono
Executive Director

Bay Area Clean Water Agencies

cc: BACWA Executive Board

February 28, 2022

SUBJECT: LETTER OF SUPPORT – Bouma-Gregson et al. PES Proposal

Dear USGS Priority Ecosystem Science Review Committee,

BACWA is pleased to offer support for the USGS Priority Ecosystem Science (PES) proposal submitted by Dr. Keith Bouma-Gregson *et al.* entitled *Identifying The Source And Taxa Producing Microcystins Detected In San Francisco Bay*

BACWA is a joint powers agency whose members own and operate publicly-owned treatment works (POTWs) 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 charged with protecting the environment and public health. BACWA provides funding to the San Francisco Bay (SFB) Nutrient Management Strategy (NMS), a regional initiative for developing the science needed for informed decisions about managing nutrient loads and maintaining beneficial uses within the Bay.

We are particularly interested in the projects that focus on identifying potential sources of *Microcystis* and microcystins to SFB. Projects funded by the NMS over the past several years have detected microcystins Bay-wide in both water samples and biota (mussels, anchovies), and understanding the factors contributing to microcystin detections in SFB is a NMS priority. The proposed project is well-aligned with planned NMS-funded work over the next 3 years, with USGS-PES funding playing a critical role in expanding data collection and data interpretation related to this important issue. BACWA is interested in supporting science which clarifies the relationship between harmful algal species and conditions within SFB. As this proposal aligns directly with BACWA's interests, BACWA staff and staff at our member agencies will engage with this effort as stakeholders, contributing expertise in wastewater, water resources management, and wastewater treatment planning.

Please do not hesitate to contact me by email at lfono@bacwa.org or by phone at (510) 684-2993.

Sincerely,

Lorien Fono
Executive Director
Bay Area Clean Water Agencies

cc: BACWA Executive Board

Nutrients in San Francisco Bay: Science & Management Priorities

Why are we interested in nutrients in the Bay?

San Francisco Bay (SFB) receives elevated loads of the nutrients nitrogen (N) and phosphorus (P), and ranks among the most nutrient-enriched estuaries worldwide. Effluent discharged from the Bay Area's publicly-owned treatment works (POTWs) accounts for the majority of nutrient loads to SFB with human waste as the true source of the nutrients from POTWs. Servicing the Bay Area's 7.5 million people, the region's 42 POTWs receive a total of 500 million gallons of wastewater per day with 85,000 kg of human derived nitrogen each day.

POTWs treat the wastewater prior to its release to SFB, and are highly-effective at removing many pollutants (e.g., biochemical oxygen demand, suspended solids, pathogens). However, most SFB POTWs were not designed to remove nutrients. As a result, nutrient discharges from POTWs sum to 50,000 kg of nitrogen per day, entering the estuary at outfalls distributed throughout the system.

Despite being nutrient-enriched, SFB has generally not experienced severe impacts and persistent degradation common to many other nutrient-enriched estuaries. Other nutrient-enriched estuaries experience excessive growth of phytoplankton (algae), a process known as eutrophication, which leads to low dissolved oxygen and possibly toxic algae. Researchers attribute SFB's 'resistance' to nutrients to multiple factors, including: high suspended sediment concentrations, which limit light needed for phytoplankton growth; strong tides that thoroughly mix the water column, and dense populations of filter-feeding clams in some regions of SFB that maintain phytoplankton at relatively low levels. However, research and monitoring over the past 10-20 years have documented substantial shifts in the Bay's phytoplankton levels, raising concerns that SFB's resistance to elevated nutrients may be waning.[i]

The San Francisco Bay Nutrient Management Strategy and its Key Participants

To address these concerns, regulators and stakeholders initiated the SFB Nutrient Management Strategy (NMS), which supports a Nutrient Science Program. Under direction from the NMS, scientists at the San Francisco Estuary Institute are developing the scientific foundation to inform nutrient management decisions and policy in SFB. The NMS science program is overseen by a 15-person NMS Steering Committee (NMS-SC), composed of representatives from diverse stakeholders groups, regulatory agencies, resource agencies, and NGOs[ii]. The NMS-SC guides the Science Program's implementation, and plays a linchpin role with information sharing and public outreach related to nutrient management in SF Bay.

Management and policy decisions include, but are not limited to, regulating discharges from wastewater facilities and other sources. Early engineering studies indicate that multi-billion dollar infrastructure upgrades would be needed to substantially reduce nutrient loads to SFB, making it critical that management decisions be informed by the best possible science. However, the ecological complexity involved in understanding the SFB system requires substantial monitoring, modeling, and research efforts. The rigorous science efforts are necessary to reach an adequate understanding for informing major nutrient management decisions based on predicted current and future ecological conditions in SFB.

Key Questions

The NMS Science Program focuses on addressing two overarching management questions:

1. Do nutrient loads to SFB result in adverse impacts to ecosystem health, either currently or under plausible future scenarios?
2. What management actions, including possible load reductions, are needed to prevent or mitigate current or future impairment?

To address these questions, the NMS Science Program pursues priority studies laid out in a multi-year science plan. Current science focus areas are described in Box A (next page).

Tools for planning next steps

Assessment framework – Development of a process to understand impairment

Assessment frameworks are tools used to evaluate and communicate information relating to the condition of an ecosystem. These frameworks can be used to connect implemented management actions to a system's condition status. An assessment framework to characterize nutrient status in SFB is under development, with input from expert advisors and stakeholders.

A key step to develop an assessment framework for nutrients in SFB is establishing a suite of numeric endpoints that indicate the Bay's response to nutrient over-enrichment or eutrophication, such as algal biomass or DO. The endpoints provide measurable indications of water quality and ecological condition that can be affected by nutrients. A final assessment framework is slated for completion in 2023 to inform the third iteration of the Nutrient Watershed Permit. Future modeling and monitoring work will be informed by the Assessment Framework.

Long term monitoring and modeling – Development of a sustainable program to track trends

For an assessment framework to be useful in the future, a long term monitoring and modeling program must also be established. A critical NMS focus area is developing numerical models to simulate the physics and biogeochemistry of SF Bay. Those models will be used to answer applied science and management questions about nutrient transport and cycling and the ecosystem response to nutrients. Recent applications of the model include determining the relative contributions of nutrients from individual POTWs within subregions of the Bay, considering nutrient transport and transformations within the system. The NMS model builds on lessons from complementary modeling efforts, including models for the northern Estuary and outer coast. Additional model applications include testing outcomes associated with load management scenarios, changes in operations of managed salt ponds; or testing water quality response to future scenarios.

In addition to developing a world-class hydrodynamic and water quality model, the NMS is also leveraging lessons learned in the Chesapeake Bay region and elsewhere to implement advanced tools to track water quality trends. The NMS developed a novel application of generalized additive models (GAMs) to characterize changes in water quality indicators over time and assess the uncertainly associated with those trends. A web-based dashboard[iii] was developed to communicate the trends, which could also be used for future reporting.

Future scenarios – How evolving management and climate change could impact the Bay

Understanding the range of circumstances under which changes to the system may result in a cascade of eutrophication-related impacts requires that the NMS characterize a variety of plausible scenarios. SF Bay has undergone rapid and unanticipated changes due to external factors in recent decades. To assess short- and long-term risk, the NMS must understand the

critical drivers of system change (e.g., reduced turbidity, changes in ocean temperature, human population-induced nutrient load increases). The NMS anticipates seeking agreement on the highest priority scenarios and what constitutes acceptable model accuracy during the current permit term, followed by refinements of assessments of future scenarios.

Box A: Key focus areas of the NMS science program

Nutrient loading, transport, and transformation • The region's 42 POTWs account for >60% of nutrient inputs to SFB, with higher contributions in portions of the Bay. Nutrient loading from municipal sources has increased over the last two decades, plateauing since 2018. • Nutrient losses from the SFB water column occur through biological reactions and transport out of the Bay. Chemical processes affect the specific forms of nitrogen and phosphorus within the water column but do not remove nutrients entirely from the system. The primary pathways for loss of nutrients from the system include denitrification in sediment and transport to the coastal ocean. • The NMS supports the ongoing development of a world-class hydrodynamic and water quality model to inform the SFB's response to nutrient loading. The model tests future scenarios, including changing nutrient loading rates, changes in sediment concentrations, and climate-induced temperature shifts.	**Low DO conditions** • Current science points to light, not nutrients, as the dominant factor controlling and limiting phytoplankton production in SFB. High nutrient concentrations are present year-round, but Bay sediment concentrations limit light penetration into the water column, which limits phytoplankton production. In deeper water, phytoplankton is low year-round, with a few short-lived exceptions when the temperature and weather conditions facilitate greater phytoplankton growth. • Shallow areas have higher phytoplankton growth rates because the shallow water allows greater average light levels. Growth is limited by periods of high suspended sediment concentrations or consumption by clams or other 'grazers'. Prolonged reduced dissolved oxygen has been measured in some Lower South Bay sloughs, although managers and the public rarely observe fish kills. • Recent studies point to unusually high oxygen consumption rates in some Lower South Bay slough habitats, particularly those connected to salt ponds.
Harmful algal species • Since 2015, the NMS has monitored concentrations of harmful algal toxins in mussels collected from the perimeter of the Bay every two weeks. The NMS and other researchers have frequently detected the presence of toxin-producing organisms and their associated toxins, including saxitoxin, domoic acid, and microcystin. • Domoic acid concentrations in SFB mussels have generally been much lower than safe human consumption levels. In contrast, concentrations of microcystin and saxitoxin have approached and sometimes exceeded safe consumption levels. • The NMS funded a pilot study in 2018 focusing on the northern anchovy - the most abundant fish in SFB and an important food resource for fish, bird, and mammal species to characterize toxin levels further. All three toxins were detected in composite anchovy samples. The NMS is evaluating molecular approaches to more efficiently track toxin-producing algal species.	**Coastal impacts** • Modeling suggests that SFB is a significant source of nitrogen to the coastal ocean via the Golden Gate, despite substantial in Bay losses from denitrification. The magnitude of these nitrogen loads to the coast is high, but we know little about their effects on coastal ecological condition. • In collaboration with the NMS, researchers from around the state are investigating the transport of human-derived nutrients to the outer coast. Elevated coastal nutrients raise concerns about HABs, ocean acidification, and decreasing oxygen levels. These studies are complicated by anticipated changes in nutrient transport in coastal systems due to climate change. • Most of the NMS' research focus is on SFB rather than the outer coast. Through collaborations with researchers from UCLA, UC Santa Cruz, and elsewhere the program has leveraged world-class scientists and models to investigate whether human-derived nutrients impact the ocean.

[i] Evidence includes: increased phytoplankton biomass and gross primary production in deep regions of South Bay (Cloern et al., 2007, 2010); frequent occurrences of harmful algae and their associated toxins; and low dissolved oxygen in some tidal slough habitats.

[ii] The Nutrient Management Strategy charter can be accessed at: https://sfbaynutrients.sfei.org/sites/default/files/nms_charter_revision_sep_2020.pdf

[iii] https://nutrient-data.sfei.org/apps/SFbaytrends/

Planning Subcommittee Meeting No. 66
March 2, 2022
9:30 am – 12:00 pm
Teleconference
Chair: Tom Mumley
Meeting Notes

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

1. *Agenda Modifications*
   None.

2. *Review Outstanding Action items*

- Schedule Modeling Subcommittee meeting for February (complete)
- Bring in Water Board to fundraising planning meetings (complete)
- Finalize public facing program summary (on today's agenda)
- Members to collaborate on developing an NMS status document/fact sheet that pulls together planning, permitting, and science by early 2022 – (ongoing)

3. *Priority Updates*
Science Program update
Fundraising - Dave listed a series of grant opportunities. The science team developed proposals for three USGS grants, and will develop one for a Prop 1 CDFW grant. There are also a couple of opportunities to pursue funding through Stanford for sediment transport and modeling grant opportunities.

Staffing – New staff have been onboarded and working on QA of moored sensor data, and more hiring is in the works. Lisa has announced she will be leaving the NMS. She will try to make herself available as needed. Friday March 4 will be her last day.

Capacity and approach-

a. Assessment Framework – The proposed plan will be for Martha Sutula to take a larger role in the Open Bay assessment framework development, and overall assessment framework oversight. She has about 20% time available for this project.
b. Program management – the team is looking at how to transition in the short term and longer term. A program manager role would be largely management, and less science.

c. Other – The program is currently running at low capacity, and may have challenges in completing future work.

There was already a challenge to identify a long-term sustainable program. Additionally, we would like to attract sustained investment from EPA.

4. Priority Updates

Other Report-outs
Modeling – Kevin reported that the recent assessment framework subcommittee meetings went well.

Current Issues
The State Water Board has an ongoing program looking at freshwater and estuarine HABs. If the State puts resources toward this effort, the NMS may be able to benefit. The NMS needs to be proactive at developing these opportunities.

Schedule - There is an NTW meeting on March 11, and the next PSC meeting is April 14. The Steering Committee meeting is May 3. We will revisit the subject of scheduling future steering committee meetings at a subsequent PSC meeting.

5. Discussion Topics

a. FY2023 program plan: priorities, funds/budget

Keith Bouma-Gregson was formerly at the state Water Board and is currently at USGS. He submitted the microcystin proposal that was discussed earlier. Kevin pointed out we should check in with Keith on HABs program. Ari will be taking a lead on that aspect of the NMS program.

Funding FY2023

- NMS Permit 2 $1.8M
- RMP ship $250K (anticipated)
- RMP special studies - $250K (anticipated)
- **Total - $2.3M**

Core Program costs

- C1 Ship - $400k
- C2 Monitoring $450K
- C3 Modeling - $500K
- C4 Program Management $750K – conservative estimate due to staff transition uncertainty
- **Total $2.1M**

Priority Projects

- Continuing work (already funded) - $600K
- New…priority tiers

Overall, less than 10% of the budget is now discretionary.

Lisa gave an overview of the program management assumptions, and the reasons for the $250K increase compared to FY22. It covers 60% of Dave's salary, although much of that is actually dedicated to science work. Monitoring program management will be conducted by Ari. Budget support is provided by Jen Hunt, and a new hire will take over some of that work at a lower salary. Lisa has been spending considerable time on budget cleanup and tracking. Staff will also generate content for a new website. The group discussed the optics of level of program management funding in the NMS budget. Dave compared the program management percentage of the NMS budget to the RMP budget and both are about 30%. Tom suggested we not get into the details at the NTW meeting, but the science team will go over them with the BACWA team at a meeting before the Steering Committee. The focus of the NTW meeting should be on recent and upcoming work in program areas C1, C2, and C3.

b. NTW meeting

Dave shared a draft agenda, which will start with a program update followed by 2 sessions of 3-4 related topics each. There will be a 2023 program plan introduction with an overview, priorities, budget and constraints. After lunch there will be a presentation and facilitated discussion on core work project options.

Dave showed a budget for FY23 core projects, critical projects, and high priority projects. The critical projects are the South Bay Geochemical work and assessment framework work. The group agreed on these designations. There is also a list of projects with that are paused for FY 23 due to insufficient funding, and a list of continuation projects with remaining funds from previous years. There are partial remaining funds for the monitoring workgroup which is proposed to be used for discussions with USGS.

Tom reported that SEP funds are available to fund $185K of projects. This could be used for P4 (South Bay shoal mapping) and P10 (MSP/Shoals data synthesis).

Public Facing Program Summary: Eric is reviewing the document and providing a markup. Lorien and Ian will review the draft and it will be included in the March BACWA Executive Board packet.

6. Action items:

- Finalize public facing NMS program summary
- Update and distribute NTW agenda

Distribute

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

BACWA AIR Committee
BAAQMD Regulation 2 Implementation Workgroup
Meeting Agenda

Date:	March 30, 2022, 3-4pm
Time:	3-4pm
WebEx Link:	Access link in meeting invite
Call-in:	Included in meeting invite

1) **Introductions**
2) **BAAQMD Regulation 2 (Permits)**
   a) Overview of amendments to Regulation 2 – December 15th Public Hearing
      i) Essential Public Services vs Emergency Services definition
      ii) BAAQMD-BACWA Implementation Workgroup established
   b) BAAQMD response to BACWA letter clarifying comments made December 15th
   c) What was the basis for stating during the December 15th Public Hearing that the wastewater sector is a major source of risk?
3) **Wastewater Sector Considerations**
   Wastewater treatment facilities are regulated by multiple governmental agencies. While regulatory actions for each media (air, water, land) are important for protecting public health and the environment, they are more effective overall when they are viewed holistically. When implemented separately, conflicts and challenges may emerge. For example, delays and lack of clarity in the air permitting process are beginning to affect the reliability of wastewater operations to provide essential public services that are vital to life and supporting emergency services. To work through these issues, the wastewater sector is actively partnering with each regulatory agency to reveal cross-media challenges and determine pathways to successfully implement improvements without interrupting essential public services.
   a) Summary of statewide "Two-Step Process" to comply with CARB's Criteria Air Pollutant and Air Toxics Reporting (CTR) Regulation, engaging air districts, and relevance to BAAQMD Rule 11-18
   b) BAAQMD Permitting process - How POTWs and BAAQMD staff can work together to most efficiently achieve clean water/clean air goals
4) **Implementation Workgroup Details and Logistics**
   a) BAAQMD and BACWA representatives
   b) Quarterly meeting schedule
   c) Documenting minutes (including decisions/action items)
   d) Approach to providing Air District Board updates
5) **Adjourn**

Multi-Agency Water Reuse Programs: Lessons for Successful Collaboration

Summary

Population growth, drought, and climate change all threaten our water security, but by working together to recycle water, utilities can create new, resilient supplies. Cooperation between water, wastewater, and storm water agencies is hindered, however, by the challenge of finding common ground, assigning roles, and allocating responsibilities and costs among different organizations. In this newly-published report, five national water reuse experts analyze the dynamics of interagency collaboration and offer lessons for successful recycled water projects.

Background

A product of the **Water Reuse Action Plan** (Action Item 2.16), this report was prepared for the U.S. EPA in cooperation with the WateReuse Association to explore how agencies can successfully work together to develop recycled water resources. The report offers an **analytical framework** for understanding the dynamics of interagency collaboration supported by a detailed analysis of **case studies** in different regions of the United States. It also includes a summary of "**lessons learned**" as well as **questions and exercises** to facilitate utility collaboration, and an **annotated bibliography** of references for further study.

The authors observe that most water utilities were created to solve last century's problems and are hard pressed to address the challenges of today. As a result, water is currently managed by a patchwork of utilities each with its own mandate, service area, management team, and financial constraints.

Agencies participating in WRAP 2.16 regional case studies.

Collaboration is complicated by complex regulations, operational details, and the inclination of agencies to control all projects within their jurisdictions. Despite this fragmented landscape, agencies from Virginia to California have found ways to focus on their common interests and have forged durable agreements that support successful water reuse programs. They provide a roadmap for overcoming challenges and serve as a model for effective leadership.

Challenges and strategies related to elements of interagency collaboration

Framework Element	Challenges	Strategies
Governance	Old mission statements narrow agency focus, restrict acceptable investments.	Relate purpose to quality of life issues; find intersections among agency goals.
Regulations	Regulatory complexity hinders some innovative reuse projects.	Review the "regulatory landscape" early on and engage with regulators from the start.
Economics	Many reuse benefits are long-term and spread across many constituencies.	Recognize and quantify avoided costs and risk reduction; find multiple benefit projects.
Management	Existing management structures don't support joint ownership, operation.	Assign roles and responsibilities for reuse projects based on agency expertise, resources.
Leadership	Progressive managers who see the need for reuse must still gain board support.	Agency leaders take the time to build informal relationships and create formal agreements.

Case studies: Leading the way

The team evaluated five regional partnerships responsible for building successful reuse collaborations:

- By recharging a local aquifer with 100 MGD of recycled water, Hampton Roads Sanitation District (HRSD) in **Eastern Virginia** will reduce the cost of regional compliance with storm water limits by over $1 billion. HRSD developed credit exchange agreements with more than a dozen local agencies and formed an oversight committee to address health concerns.
- By coordinating their claims on return flows to the Trinity River, agencies in **North Central Texas** kept local control of their water allocations and developed partnerships that reduce the cost of reuse projects.

Tucson Water and Pima County together created an award-winning wetland.

- Pima County and Tucson Water in **Southern Arizona** share responsibility for treating and distributing recycled water as a regional resource.
- In **Central California**, Monterey One Water (M1W) supplies nonpotable water for agricultural irrigation and highly treated water for aquifer recharge through a five-way partnership. To maintain these relationships, utility directors must balance their agency's needs with the regional interests.
- The largest water and wastewater agencies in the **Los Angeles area** are building on past successes to develop audacious new projects to reuse nearly 400,000 acre-feet per year of treated effluent by looking beyond their own needs and building reuse capacity "for the common good."

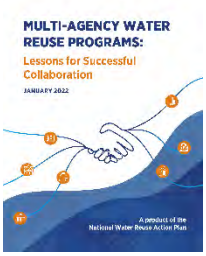
"Projects proceed at the speed of trust."

A few of the many lessons learned from agencies working together around the country include:

- Agencies can assign roles and responsibilities through many legal structures, but agreements don't create trust—they only document it.
- Regulations limiting discharge of contaminants or withdrawal of surface or ground water supplies can motivate agencies to recycle water.
- Reuse can be justified by crediting the avoided cost of alternate projects, the value of reliability and the ecological benefits of in-stream flows.
- Transparent accounting builds trust while pilot projects can reinforce staff relationships.
- There are many kinds of leaders, but one consistent mark of leadership is the ability to help different groups identify and pursue their common goals.

Essential Elements of Water Reuse Agreements

Essential elements	Agreement parameters
System infrastructure	Condition, location, ownership
Regulatory compliance and risk management	Responsibility for compliance, liability for events
Financial terms	CAPEX, OPEX and revenues
Water quantity, quality	Annual, peak hourly flows; selected constituents
System operation and maintenance	Responsibility for O&M, emergency response
Customer relations	Delegate responsibility for safe use of recycled water
Public outreach	Represent program to public, policy makers



For More Information

Download the report through the WRAP Online Platform or contact the research team:

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Felicia Marcus	feliciaamarcus@gmail.com
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Dave Smith	davesmithwater@gmail.com

BAY AREA POLLUTION PREVENTION GROUP

BAPPG

A Committee of Bay Area Clean Water Agencies

2021

ANNUAL REPORT

Covering reporting period of 1/1/21 – 12/31/21

BAPPG Chair: Autumn Cleave

BAPPG Co Chair: Robert Wilson

BAPPG Vice Chair: Joe Neugebauer

Prepared by: Joe Neugebauer

Submitted to: Bay Area Clean Water Agencies

Date: February 7, 2022

EXECUTIVE SUMMARY

The Bay Area Pollution Prevention Group (BAPPG), a subcommittee of Bay Area Clean Water Agencies (BACWA), is comprised of 43 Bay Area wastewater agencies that work together to coordinate pollution prevention activities and leverage resources for smaller agencies to reduce the amount of toxic pollutants discharged into the San Francisco Bay and local waterways. Wastewater agency representatives meet monthly to share information, leverage resources, and develop regional activities that help member agencies meet regulatory outreach requirements and BAPPG goals.

2021 COMMITTEE UPDATES

All files pertaining to BAPPG are being added to the BACWA BAPPG webpage (https://bacwa.org/committees/bay-area-pollution-prevention-group/). This includes meeting agendas, meeting minutes, reports, presentations, and information on pollutants of concern.

2021-2022 BAPPG officers were selected:

- Chair – Autumn Cleave, San Francisco Public Utilities Commission
- Co-Chair – Robert Wilson, City of Santa Rosa
- Vice Chair – Joe Neugebauer, West County Wastewater District

CURRENT PROJECT UPDATES

This report serves as an update to BACWA and member agencies for all BAPPG projects, by pollutant, which took place from January 1, 2021, through December 31, 2021.

1. COPPER
2. FATS OILS AND GREASE (FOG)
3. MERCURY AND SILVER
4. PESTICIDES
5. PHARMACEUTICALS
6. TRASH AND WIPES

1. POLLUTANT: COPPER

POLLUTANT DESCRIPTION

Copper pipe corrosion has been a major concern to the wastewater community for more than a decade. For many years, the messages have focused on proper installation, including the use of a water-based flushable flux. In California, there are also alternatives to copper pipe for potable and non-potable installations, such as PEX. Further, copper is a pesticide used in swimming pools and spas and incorporated into fabrics.

KEY MESSAGES

1. Select only ASTM B813 water-flushable flux rather than petroleum-based flux (which is not flushable and increases pipe corrosion rates).
2. Incorporate additional BMPs during design, reaming, cleaning, and building commissioning that will reduce pipe corrosion rate.
3. Seek mitigation options for copper products that are used in swimming pools, spas, and fountain treatments (often drained to sanitary sewer) as well as copper-treated fabrics that are subsequently laundered.

NEXT STEPS

Baywise.org has resources for plumbers that focus on the key messages above. The Regional Water Quality Control Board, Region 2, has confirmed that the outreach materials on baywise.org are sufficient for copper education and outreach.

2. POLLUTANT: FATS, OILS AND GREASE

POLLUTANT DESCRIPTION

FOG is a top priority due to the associated regulatory and financial impacts to member agencies. FOG is a major problem for sewer systems, causing sewer back-ups, sewer overflows onto streets, and foul sewer odors. Because of this, cities often spend millions of dollars a year responding to grease-related sewer blockages and in infrastructure improvements.

KEY MESSAGES

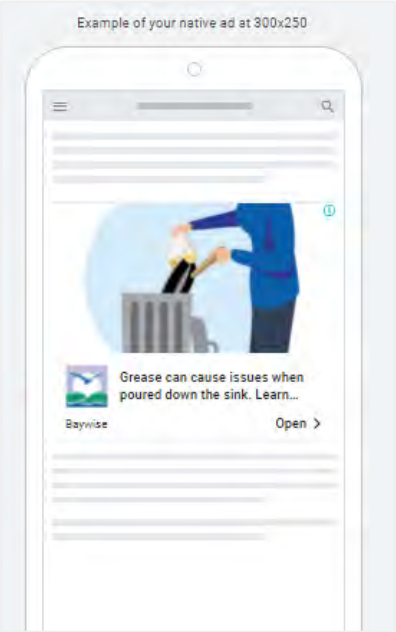
1. Don't pour grease down the drain – collect and recycle used cooking oil

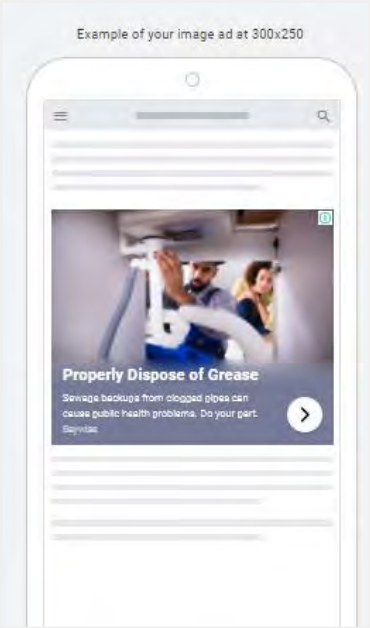
Project	Description	Timeline	Budget
Outreach: Fats, Oils, & Grease	SGA ran an awareness campaign consisting of two campaign segments. Between September 20 and October 19, 2021, SGA ran the first half with a general reminder message about proper FOG disposal. The second half was shorter and more concentrated with messaging about proper FOG disposal tied with Thanksgiving cooking and food. This ran from November 11th to 28th to coincide with the Thanksgiving holiday. SGA also created a new campaign landing page on baywise.org to provide information about FOG and to promote proper FOG disposal, and incorporated custom illustrations to showcase proper oil disposal methods. See https://baywise.org/residential/fog/	Calendar Year 2021	$8,000

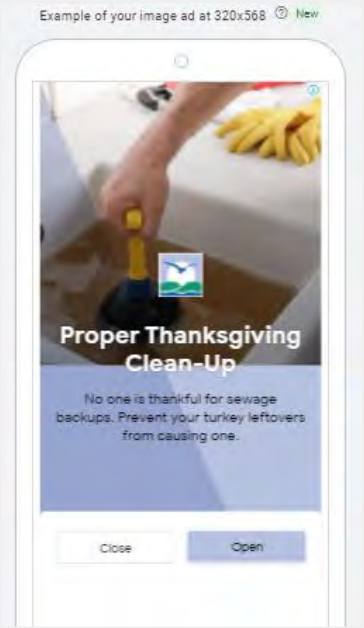
Results

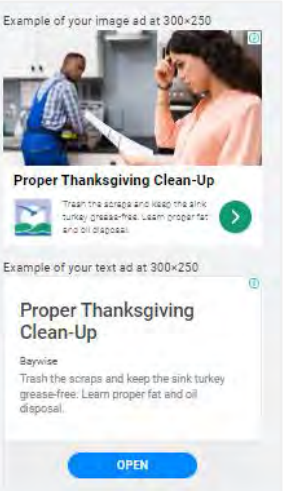
Google Ads:
● Impressions = 2,721,847
● Total Clicks = 22,248
● Average Cost Per Click = $0.18
● Clicks by County
  • Santa Clara County = 8,386
  • San Francisco = 5,743
  • Alameda County = 3,574
  • Solano County = 1,629
  • Contra Costa County = 1,165
  • San Mateo County = 859
  • Sonoma County = 558
  • Napa County = 174
  • Marin County = 160

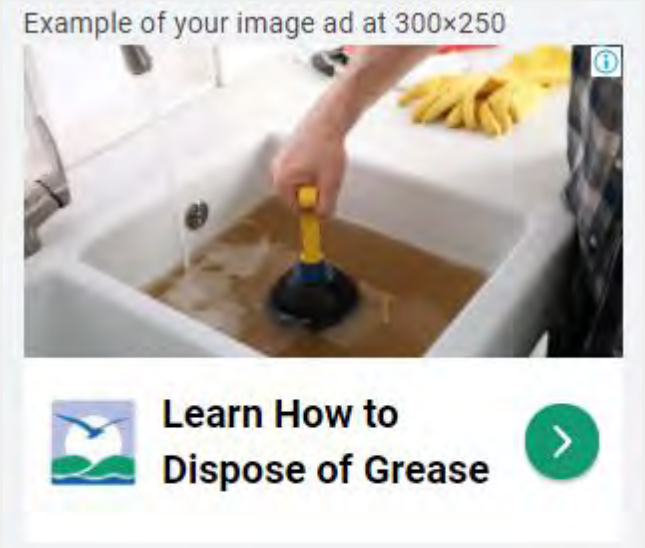
MATERIALS (Google Responsive Display Ads assets)



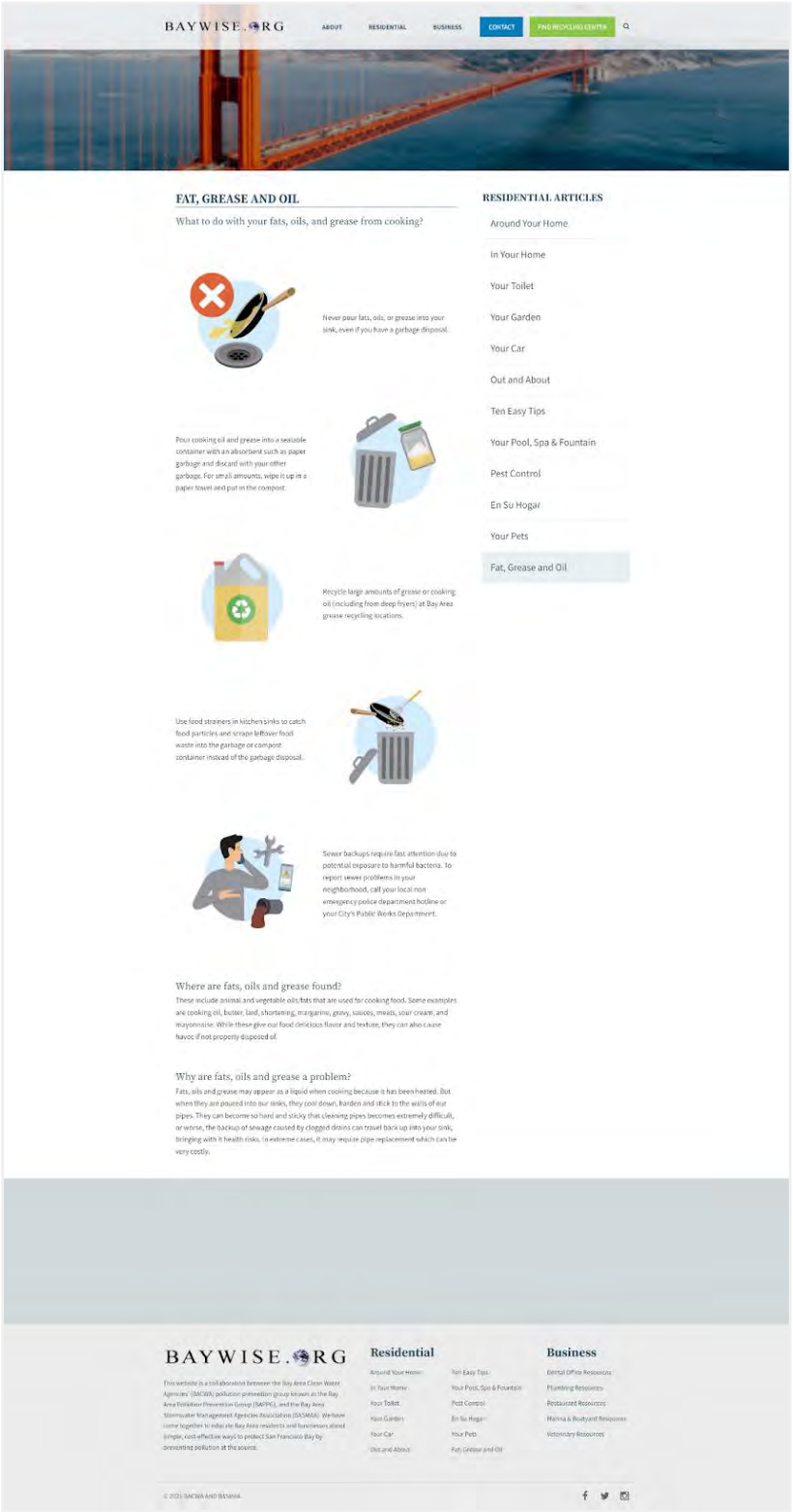








MATERIALS (Campaign landing page)



NEXT STEPS

Staff from member agencies and the BAPPG outreach consultant will continue to monitor and update Baywise.org with relevant information.

3. POLLUTANT: MERCURY AND SILVER

POLLUTANT DESCRIPTION

Outreach regarding best management practices for dental amalgam and silver fixer waste is essential to ensure member agencies continue to meet regulatory standards and prevent pollution of receiving waters.

KEY MESSAGES

1. Dental amalgam and silver fixer wastes are hazardous and shall not be disposed in dental office sinks.
2. Incorporate BMPs for dental amalgam, silver fixer, and other hazardous wastes within a dental office.
3. The mandated use of BMPs and amalgam separators has significantly decreased the mercury loads into the sewer.
4. As of July 2017, the US EPA is mandating the installation of amalgam separators and the use of several key BMPs.

Project	Description	Timeline	Budget
Dental Assistant / Hygienist Outreach	Stephanie Hughes served as a guest speaker in dental assistant / hygienist classes in local colleges throughout the Bay Area. Due to pandemic, switched from in-person to online Zoom format.	Calendar Year 2021	$1,500

Results
Instructors were very appreciative of the pivot from in-class to virtual Zoom support. Reached a total of 68 students and instructors at the following site visits: San Jose City College (virtual) ● College of Marin, Novato (virtual)

Project	Description	Timeline	Budget
NSAC	The National Stewardship Action Council (NSAC) is a network of local governments, non-government organizations, businesses and consumers who advocate that producers fairly share responsibility to achieve a circular economy.	Calendar Year 2021	$10,000

Results
● AB 707 Mercury Thermostats Extended Producer Responsibility o Signed into law on October 5, 2021. o This bill repeals the Mercury Thermostat Collection Act of 2008 and recasts the program as part of the state's hazardous waste control laws, as the Mercury Thermostat Collection Act of 2021. The bill requires each manufacturer of mercury-added thermostats on or before March 1, 2022, to contract with or

retain a qualified third party, as defined, to develop and implement a convenient, cost effective, and efficient program for the collection, transportation, recycling, and disposal of out-of-service mercury-added thermostats.
  - Bill requires a customer returning a mercury thermostat to be paid $30 – the highest incentive in the nation!
  - All retailers can obtain a free mercury thermostat collection box.

NEXT STEPS

Continue to provide a guest speaker to local colleges via the zoom format and/or in-person instruction, as appropriate. The instructors have come to rely on these annual visits and have incorporated BAPPG's program into their instructional calendar. Further, this is a very relevant audience for other messages, such as wipes, microbeads, and flea control. BAPPG will also continue to support the NSAC as they continue to look for opportunities to initiate and support legislation regarding extended producer responsibility for products containing pollutants that affect wastewater and stormwater quality.

4. POLLUTANT: PESTICIDES

POLLUTANT DESCRIPTION

Indoor and outdoor application of pesticides can result in chemical runoff into the sewer systems and receiving waters, leading to lower pollutant removal efficiencies at treatment plants, potential biosolids management and recycled water use limitations, as well as aquatic ecosystem degradation.

KEY MESSAGES

1. Promote integrated pest management and less-toxic products as alternatives to pesticides.
2. Seek alternatives to fipronil and imidacloprid and other topical (collar and spot-on) pet treatments (conducted alternative analysis, completed talking points for veterinarians and messages for general public).
3. Work with pesticides regulators to improve their ability to address POTWs during pesticide registration, to support their monitoring efforts, and to implement mitigation when needed.

Project	Description	Timeline	Budget
OWOW	Our Water Our World (OWOW) is a Bay Area-wide outreach program that promotes the use of less-toxic pest control methods and products in the home and garden through local retailers.	Calendar Year 2021	$10,000

Results
● Coordinated program implementation with major chains Home Depot, and Ace Hardware National. Home Depot Corporate (Atlanta) directed support of the program with their stores. ● Maintained an inventory of the following: fact sheets, shelf tags, literature rack display signage, *10 Most Wanted* brochures, *Pest or Pal Activity Guide for Kids*, custom-designed product guide dispensers, and three versions of product guides (Home Depot and generic), from which participating agencies could purchase materials. ● Updated less-toxic Product Lists: three versions – Master by-pest, Master by-manufacturer, and

Home Depot product-by-pest.

- Updated / revised Home Depot and General Pest calendars to reflect additional pests and products.
- Updated / revised Home Depot and General How Products work handout, research new products, and active ingredients.
- Revised all training packet handouts – revised and updated information, added new dates and contact.
- Revised and updated Herbicide Alternatives handout for Advocates.
- Coordinated employee trainings and tabling events at *Our Water, Our World* stores.
- Maintained *Our Water, Our World* website. Sent user survey to agencies, retailers, IPM Advocates, and others seeking feedback on how the website is used and what improvements are needed.
- Provided and staffed exhibitor booths:
  - L&L Dealer Show, virtual (October 2021).
- Participated in UCIPM Continuing Education for IPM Advocates.
- Below are some outputs and outcomes for FY 20-21:
  - 85 *Our Water, Our World* store trainings.
  - 626 employees trained at *Our Water, Our World* stores.
  - 8 in-person tabling events at *Our Water, Our World* stores.
  - 222 customers contacted by Advocates at tabling events at stores.
  - In lieu of in-person public outreach due to covid, 48 OWOW IPM educational webinars were conducted where 3932 people were reached through virtual classes bringing the total people reached with both in-person and virtual events = 4,202 people
    The Home Depot stores reported to have increased the number of eco-products by roughly 25%.
    It was reported that the sales of Ortho's 3-in-1, pyrethrin and sulfur eco-pesticide was up 17%.
    Eco-friendly pesticides are more popular than ever. Vendors and retailers noted that "the organic categories were extremely strong due to the millennials".
  - Home Depot continues to increase their less toxic product offerings by approximately 25%. The sales of eco-pesticide categories continues to remain strong.

Final Note: Due to the covid pandemic, supply chain issues and labor shortages impacted the garden industry significantly. It was another very challenging year due to large absences in the retail stores, the breakdown in the supply chain and restocking items, and many businesses were running their businesses with a fraction of the usual staff.

Project	Description	Timeline	Budget
Flea & Tick Outreach to Veterinarians	Evaluate flea products with regards to pathways to sewers. Develop and communicate recommendations for pet owners and veterinarians to reduce impact to sewers. Conduct trainings to veterinary students and professional associations.	Calendar Year 2021	$13,500
Dental Assistant / Hygienist Outreach	Insights about proper flea control included as part of dental waste discussion.	Calendar Year 2021	N/A*

Results
● Continued the development of outreach messages regarding alternatives to fipronil and imidacloprid and other topical pet treatments. ● In Fall 2018, updated the dental training to incorporate information regarding flea pet control. In 2021 reached 68 dental trainees and instructors (per Mercury section). ● Given the pandemic, refrained from seeking opportunities to reach the general public. Focus shifted to the national organization, the American Veterinary Medical Association (AVMA). ● Initiated communications with the AVMA Committee on Environmental Issues (CEI), with an introductory meeting in January and follow up discussions in July and November. ● Answered questions from the AVMA CEI about outdoor fipronil uses and the fate and transport of active ingredients indoors, including extensive emails and documentation. ● Updated flea/tick alternatives to expand upon physical tick controls per the recommendation of AVMA CEI); updated Baywise.org text accordingly. ● Reached out to the Foothill College Veterinary Technician program for second year in a row. Conducted training of their Vet Tech students via a Zoom virtual presentation. The topic was quite well received by the 35 students and their instructor. The students asked excellent questions and had insights about how to reach out to clients. ● Provided a Zoom presentation to 106 wastewater and pretreatment professionals at the Pacific Northwest Pollution Prevention Conference. ● Reviewed new materials from the cities of Palo Alto and San Jose and reviewed how to incorporate San Jose's catchphrase ("choose chewables") and Palo Alto's new brief online video. ● Developed draft outreach materials that include a letter to vets and an outreach flyer for their clients.

Project	Description	Timeline	Budget
Regulatory Tracking and Communications	The BAPPG Pesticides Workgroup addresses pesticide pollution by engaging in pesticide registration reviews by both the US Environmental Protection Agency (USEPA) and Department of Pesticide Regulation (DPR). These registration review process includes opportunities for public comment. Typical annual activities include: ● tracking and prioritizing USEPA and DPR re-registration reviews ● educating staff from DPR and USEPA about local pesticide pollution data and concerns; ● engaged in scientific and management conversations with EPA and DPR regarding new scientific evidence linking pet flea control treatments and fipronil and imidacloprid in POTW effluent; and ● submitting comment letters during the pesticide re-registration process through BACWA	Calendar Year 2021	$60,000

Results

- Coordinated with BAPPG to update the list of highest priorities pesticides for BACWA's attention. Created an updated pesticide watch list for tracking purposes.
- Tracked pesticide-related regulatory activities by EPA and DPR and new scientific information that have significant potential to affect BACWA member agencies. Notified BAPPG of such items as they arose. Provided a "crystal ball" near-term priorities tracking summary, updated monthly or bimonthly.
- On the basis of regulatory documents, relevant scientific information, and the regulatory context, made recommendations regarding regulatory participation or other follow-up steps on multiple EPA and DPR actions..
- Submitted a comment letter to DPR in response to their human health risk assessment of fipronil, describing implications of fipronil in wastewater effluent for the feasibility of potable reuse.
- Submitted 5 comment letters to the USEPA which explained the pesticide transport route to the sanitary sewer and related scientific studies for priority pesticides:[1]
    - **Pyrethrins** - There are numerous pyrethrins products that are used in the indoor environment including carpet sprays, home sprays, home foggers, home lice sprays, and bedbug products. EPA acknowledged that indoor uses result in risks of concern for aquatic organisms. This letter supported EPA's proposed mitigations, including labeling changes, which are expected to result in reduced risks of exposure to non-target aquatic organisms in downstream surface waters
    - Neonics (imidacloprid, clothianidin, thiomethoxam) – This letter presented our disappointment that the EPA's Draft Biological Evaluations for the Neonicotinoid Insecticides Clothianidin did not include the indoor sources of neonicotinoids that are subsequently discharged to municipal wastewater systems, pass through POTWs, and result in discharges that pose ecological risks. This omission was despite detailed scientific evidence previously shared with EPA Office of Pesticide Programs (OPP) on multiple occasions since 2017.
    - **Busan-77** - Continued BACWA's work to ensure that EPA requires applicable products to carry new swimming pool, spa, and fountain product label language to direct owners to contact their local sanitation agency prior to discharging treated water.
    - **Novaluron** - In its 2020 Draft Environmental Risk Assessment, EPA stated that POTW discharge analysis is unnecessary because agricultural discharge would be representative of POTW discharge. We fail to understand how modeling agricultural novaluron applications and subsequent runoff from a treated agricultural field could provide any scientific insights on the discharges of novaluron into the sewer system and its subsequent passage through POTW treatment processes… POTW modeling is needed to inform

[1] The BACWA EPA pesticide comment letters can be found at bacwa.org/document-category/comment-letters/.

POTW-specific mitigation measures…EPA's Environmental Fate and Effects Division (EFED) can use the detailed label analysis tables developed by EPA's Biological and Economic Analysis Division (BEAD) to identify uses with pathways to POTWs.

- **Cyhalothrins (a pyrethroid)** - Despite finding substantial (orders of magnitude) differences in aquatic risks among the pyrethroids and pyrethrins, EPA issued a single risk mitigation proposal with only one set of measures covering all 23 pyrethroids and pyrethrins. Due to this gap, EPA's joint pyrethroids/pyrethrins ecological risk mitigation proposal does not include measures that we anticipate will reduce daily discharges or provide measurable reduction in typical POTW discharge risk. Sought a focused evaluation of individual uses that are most closely linked to the external (non-user) costs of pyrethroids use such as pet flea control are necessary to support EPA's decision.

- Thanks to numerous BAPPG letters seeking improvement in label language, the EPA has additional stewardship language to the label mitigation that will address the potential for down-the-drain exposure for several pesticide products. That included incorporating the pictogram at right provided by Dublin San Ramon Sanitary District, a BAPPG member.

- Coordinated with EPA's neonics team to arrange a zoom meeting to express BACWA's concerns on lack of consideration of indoor pesticide use in neonic reports. Helped prepare BACWA Workgroup members to present at meeting. Drafted meeting notes and follow-up emails to EPA after the meeting
- Coordinated with and provided technical support for NACWA and San Francisco Bay Regional Water Board, which also sent letters on most of the above items.
- Based on existing open lines of communication with pesticide regulators, pesticide manufacturers, and scientists researching pesticides in wastewater, notified BAPPG of important information obtained through these contacts.
- Provided technical information to support BACWA's coordination with NACWA on Federal pollution prevention topics, including pesticides and Toxic Substances Control Act (TSCA) reform.
- Tracked TSCA reform implementation and reported to BAPPG workgroup on EPA's activities.
- Coordinated and provided scientific support for communications with EPA and DPR about wastewater pesticides discharges, wastewater pesticides monitoring, and improving wastewater pesticides predictive modeling to support registration decisions. Continued semi-annual informal information-sharing teleconference meetings between BACWA's pesticide workgroup and DPR's wastewater experts. Conducted an information-sharing teleconference between BACWA's pesticide workgroup and pesticides staff at EPA's Region 9.
- Evaluated outcomes of BACWA input to EPA and DPR and briefed BAPPG/BACWA pesticides leads on these outcomes to assess effectiveness of BACWA's work. The following evaluations are available on the BAPPG website:
  - Pyrethrins

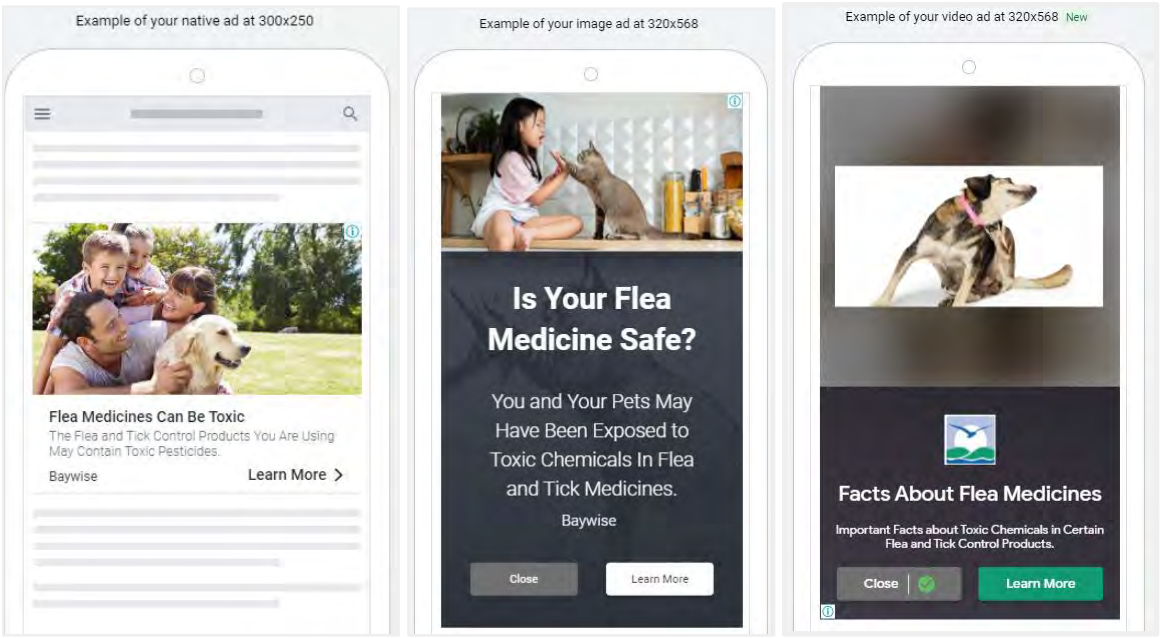
Results
o Novaluron (2 tables in 2021 reflecting responses to different letters) o Metam o Halohydantoins o Cyhalothrins o Busan 77 (2 tables in 2021 reflecting responses to different letters) o Metam o Organic esters of phosphoric acid o Amitraz o Sodium bromide o Methoprene o Cypermethrins o Carbaryl o Hypochlorous acid ● Developed an agenda and materials for a monthly BACWA Pesticides Workgroup teleconference meeting to determine appropriate actions and to coordinate actions with NACWA and San Francisco Bay Regional Water Board staff. Provided staff support during the meetings and an action item list after each meeting. ● Briefed the BACWA Board and BAPPG on pesticides regulatory activities and the latest relevant scientific information on pesticides relevant to POTWs.

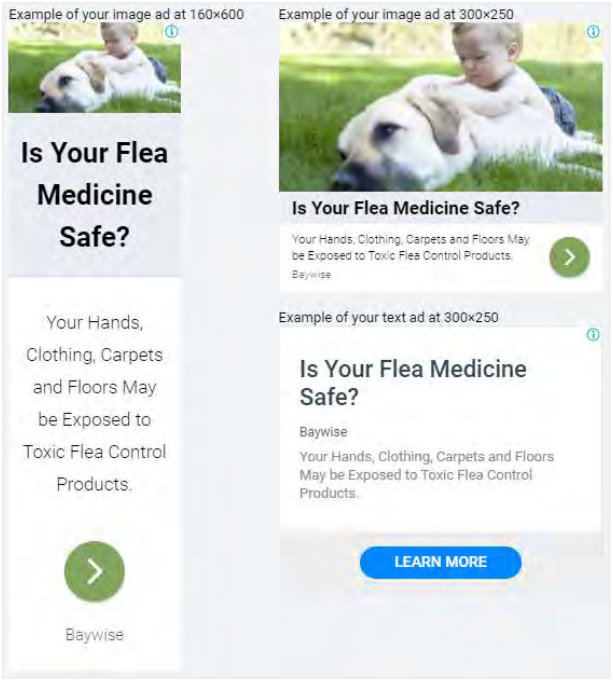
Project	Description	Timeline	Budget
Flea & Tick Outreach	Between April 1, 2021 and May 31, 2021, SGA ran a Google Responsive Display Ad campaign. The purpose of the campaign was to educate pet owners in the Bay Area on the environmental impact of using external flea and tick medicines by sending them to the "Your Pets" page on Baywise.org.	April 1 – May 31, 2021	$8,000

Results
Google Ads: ● Impressions = 2,889,241 ● Total Clicks = 27,032 ● Average Cost Per Click = $0.12 ● Clicks by County • Santa Clara County = 11,924 • San Francisco = 5,106 • Alameda County = 3,926 • Contra Costa County = 2,390 • San Mateo County = 1,231 • Solano County = 968 • Sonoma County = 813

- Marin County = 352
- Napa County = 322

MATERIALS





NEXT STEPS

The BACWA Pesticides Workgroup will continue its collaboration with the AVMA CEI beginning with dialogue regarding possible national survey of veterinarians to gauge their knowledge of pesticide impacts to wastewater as well as their messages and recommendations to clients. The workgroup will also continue to track and comment on the USEPA and DPR re-registration process.

5. POLLUTANT: PHARMACEUTICALS

POLLUTANT DESCRIPTION

Pharmaceuticals can enter water resources and the San Francisco Bay through improper disposal into wastewater streams (e.g., flushing pharmaceuticals down the toilet). Pharmaceuticals have endocrine disrupting properties, and unintended exposure of pharmaceuticals to aquatic life and humans can lead to adverse health effects. Outreach surrounding safe disposal of pharmaceuticals is essential to ensure member agencies meet regulatory standards and prevent pollution of receiving waters. There is potential to combine water quality messaging with broader messaging surrounding health and safety to target wider audiences while still ensuring that safe disposal is the key take-away.

KEY MESSAGES

1. No Drugs Down the Drain
2. Don't Rush to Flush – Meds in the Bin, We All Win!
3. Prevent Accidental Poisoning, Drug Abuse and Water Pollution by disposing medicines properly

Project	Description	Timeline	Budget
Dental Assistant / Hygienist Outreach	Insights about proper pharmaceutical disposal included as part of dental waste discussion.	Calendar Year 2021	N/A*

**Included above with mercury*

Results
Reached 68 dental trainees and instructors (per Mercury section).

NEXT STEPS

Continue to include discussions about proper disposal of pharmaceutical wastes in the outreach to dental trainees and instructors.

6. POLLUTANT: TRASH AND WIPES

POLLUTANT DESCRIPTION

Trash is a top priority due to the improper disposal of non-woven wipes and other non-flushable trash items such as hair, ear swabs and all products claiming to be biodegradable or flushable. Most consumer wipes products (labeled flushable or not) take much more time to disperse in water than toilet paper, which has caused issues for many POTWs in the Bay Area, including damage to pumping station equipment, grinders and other infrastructure, stoppages, and sanitary sewer overflows. Wipes and other

non-dispersibles are also a safety issue for pump station employees that have suffered needle sticks from "deragging" pumps clogged with wipes.

KEY MESSAGES

1. Wipes Clog Pipes!
2. Toilets Aren't Trashcans

Project	Description	Timeline	Budget
Dental Assistant / Hygienist Outreach	As part of the dental waste discussion, speaker includes insights about microbeads and "flushable" wipes. This audience is very receptive to all BAPPG messages. More than 95% female, they are typically the primary purchaser for their families and as medical professionals, they are concerned about health and water quality.	Calendar Year 2021	N/A*

**Included above with mercury*

Results
Reached 68 dental trainees and instructors (same audience reached as "Mercury" results above).

Project	Description	Timeline	Budget
NSAC	The National Stewardship Action Council (NSAC) is a network of local governments, non-government organizations, businesses and consumers who advocate that producer fairly share responsibility to achieve a circular economy.	Calendar Year 2022	$10,000

**Included above with mercury*

Results
● AB 818 (Bloom): Truth in "Flushable" Wipes Labeling o Signed into law on October 6, 2021 by Governor Newsom. o The bill was co-sponsored by the NSAC, CASA and the National Association of the Nonwoven Fabrics Industry (INDA). o The bill requires, except as provided, certain premoistened nonwoven disposable wipes manufactured on or after July 1, 2022, to be labeled clearly and conspicuously with the phrase "Do Not Flush" and a related symbol, as specified. The bill would prohibit a covered entity, as defined, from making a representation about the flushable attributes, benefits performance, or efficacy of those premoistened nonwoven disposable wipes, as provided. The bill would establish enforcement provisions, including authorizing a civil penalty not to exceed $2,500 per day, up to a maximum of $100,000 per violation, to be imposed on a covered entity who violates those provisions. o The bill would establish, until January 1, 2027, the California Consumer Education and Outreach Program, under which covered entities would be required, among other things to participate in a collection study conducted in collaboration with wastewater agencies

for the purpose of gaining understanding of consumer behavior regarding the flushing of premoistened nonwoven disposable wipes and to conduct a comprehensive multimedia education and outreach program in the state. The bill would require covered entities to annually report to specified legislative committees and the State Water Resources Control Board on their activities under the program and would require the state board to post the reports on its internet website.
    - The NSAC created a fact sheet for the bill.
    - The NSAC sent coalition support letters to committees and Governor Newsom. BAPPG was one of the signatories.
- National "WIPPES" Act
    - Based on California's AB 818, HR 4602: Wastewater Infrastructure Pollution Prevention and Environmental Safety Act (2021), a bipartisan bill, was introduced in the House by Congressman Lowenthal (CA-47) and Congresswoman McClain (MI-10) and referred to the House Committee on Energy and Commerce on July 21, 2021.
    - The bill would require manufacturers of non-flushable wet wipes to clearly and prominently display a "Do Not Flush" label on their packaging and would set fines for manufacturers that do not follow the regulation.
    - The bill would also create an education program to inform consumers of the meaning of the labeling, why the new labeling is required, and the adverse impact of these wipes on water infrastructure systems when flushed.
    - The NSAC created a model letter of support that was signed by BAPPG and sent to the offices of Congressman Lowenthal and Congresswoman McClain.
    - NSAC is currently taking national sign-ons to a letter to be sent in early February to the producers of these products asking them to stop selling products that do not meet dispersibility requirements and follow California's labeling of wipes as quickly as possible.

Project	Description	Timeline	Budget
Gel Pack Graphic	SGA developed a 1-page fact sheet to be included in the "In Your Home" page on Baywise.org to educate Bay Area residents regarding proper disposal of gel packs and the type of gel pack that should not be disposed of into the sewer system.	April – May 2021	$3,000

MATERIALS

NEXT STEPS

BAPPG will continue to include messages about trash and wipes when meeting with medical, hospice, and dental professionals and trainees. BAPPG will also distribute collateral during professional presentations and regional outreach events if these in-person events resume during 2022. BAPPG will also continue digital online campaigns in conjunction with National P2 Week to continue stressing the "Wipes Clog Pipes!" and "What to Flush" messages. BAPPG will also continue to support the NSAC as they continue to look for opportunities to initiate and support legislation regarding extended producer responsibility for products containing pollutants that affect wastewater and stormwater quality.

San Francisco Bay Regional Water Quality Control Board

March 8, 2022

NOTICE OF FILING, NOTICE OF OPPORTUNITY FOR PUBLIC COMMENT, AND NOTICE OF PUBLIC HEARING

ON AMENDMENT TO THE WATER QUALITY CONTROL PLAN, SAN FRANCISCO BAY BASIN, AND DRAFT SUBSTITUTE ENVIRONMENTAL DOCUMENT

NOTICE IS HEREBY GIVEN that the San Francisco Bay Regional Water Quality Control Board (Water Board) has filed and is circulating a draft substitute environmental document (SED) on a proposed update to the Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan). The proposed update amends the Basin Plan to include information on climate change and how it might affect the region's waters. It describes efforts made to support the long-term resilience of aquatic habitats in the region. It includes a suite of questions and information that may be relevant when the Water Board permits dredge or fill activities in or near the region's shorelines, especially climate adaptation projects. It updates references, corrects errors, and makes minor, non-substantive edits for clarity. The Basin Plan amendment is informational and contains no new regulations. The Water Board is proposing to update the Basin Plan in accordance with a regulatory program certified under Section 21080.5 of the Public Resources Code as exempt from the requirement to prepare an environmental impact report under the California Environmental Quality Act (Public Resources Code Section 21000 et seq.) and with other applicable laws and regulations.

NOTICE IS ADDITIONALLY HEREBY GIVEN that the Water Board will receive comments on the proposed Basin Plan amendment and draft SED in accordance with this notice.

NOTICE IS ADDITIONALLY HEREBY GIVEN that the Water Board will hold two public hearings on the proposed Basin Plan amendment:

DATES: April 13 and June 9, 2022

TIME: 9:00 a.m. (approximate)

LOCATION*: Elihu M. Harris Building Auditorium
1515 Clay Street
Oakland, CA 94612

CONTACT: Christina Toms
San Francisco Bay Regional Water Quality Control Board
1515 Clay Street, Suite 1400
Oakland, CA 94612
Christina.Toms@waterboards.ca.gov

MATERIALS: The proposed Basin Plan amendment and draft SED (comprising a staff report and its appendices) will be available for review online on March 8, 2022 at https://www.waterboards.ca.gov/sanfranciscobay/public_notices/#basin

BACKGROUND

The Porter-Cologne Water Quality Control Act and the federal Clean Water Act require the Water Board to regularly review and update the Basin Plan. The Basin Plan currently lacks any description of climate change and its relevance to the water board's regulatory programs. The proposed Basin Plan amendment fulfills that gap. The Water Board had previously identified a climate change Basin Plan amendment as high priority in its triennial reviews.

SUBMISSION OF COMMENTS

Written comments on the proposed Basin Plan amendment and draft SED must be received **no later than 5:00 p.m. on April 22, 2022**, to be considered. Please send all written comments to the staff contact identified above. Additionally, all evidence, testimony, and exhibits to be offered at the hearing must be submitted in writing by this date to the above staff contact. Non-evidentiary policy statements to be made at the June hearing need not be submitted in advance. Submission of written comments via email is preferred, but not required.

PROCEDURAL MATTERS

The Water Board will receive oral public testimony on the proposed Basin Plan amendment and draft SED at the April hearing. Prior to the June hearing, Water Board staff will release any proposed changes to the proposed Basin Plan amendment and/or SED, along with written responses to comments. Oral public testimony at the June hearing will be limited to comments on changes to the proposed Basin Plan amendment and SED. At the June hearing, the Water Board will consider adoption of the proposed Basin Plan amendment and draft SED, including any changes to the proposed Basin Plan amendment that are consistent with the general purpose of the proposed amendment and are a logical outgrowth of the comments received.

The public hearings will be conducted in accordance with California Code of Regulations, title 23, section 649.3. To ensure a productive, efficient and fair hearing in which all participants

* The location and format of the meeting are subject to change due to the COVID-19 emergency. Interested persons will be notified of any changes. If you are not on the interested persons list, please contact the staff contact below to be included in any updates. Additional information about participating in the public hearing will also be available on the following Board webpage by April 3: https://www.waterboards.ca.gov/sanfranciscobay/board_info/agenda.html

have an opportunity to be heard, oral comments will generally be limited to five minutes; groups are encouraged to designate a spokesperson.

If you require special accommodations at the physical meeting location, please contact Victor Aelion, (510) 622-2093, Victor.Aelion@waterboards.ca.gov, at least five (5) working days before a meeting. TTY users may contact the California Relay Service at 1-800-735-2929 or voice line at 1-800-735-2922.

FUTURE NOTICES

Any changes in the date of the hearing, the availability of responses to comments or any other updates will be noticed by the Lyris e-mail list. Any person desiring to receive future notices concerning the proposed Basin Plan amendment and substitute environmental document must sign up for the Lyris e-mail list. To sign up, access the E-mail List Subscription form at the Lyris subscription page: https://www.waterboards.ca.gov/resources/email_subscriptions/reg2_subscribe.html, and select the box for “ALL Basin Planning/TMDL Notices and Information” option.

California Regional Water Quality Control Board
San Francisco Bay Region

Proposed Basin Plan Amendment:

Climate Change and Aquatic Habitat Protection, Management, and Restoration

March 3, 2022

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

SAN FRANCISCO BAY REGION

1515 Clay Street, Suite 1400, Oakland, CA 94612

https://www.waterboards.ca.gov/sanfranciscobay/

Proposed Basin Plan Amendment

The following revisions are proposed for Chapter 1: Introduction. Text proposed for deletion is in ~~strikeout~~; text proposed for addition is underlined.

1.1 THE SAN FRANCISCO BAY REGION

The San Francisco Bay Region (Region) is 4,603 square miles~~, roughly the size of the State of Connecticut,~~ and characterized by its dominant feature, 1,100 square miles of the 1,600 square mile San Francisco Bay Estuary (Estuary), the largest estuary on the west coast of the United States, where fresh waters from California's Central Valley mix with the saline waters of the Pacific Ocean. The Region also includes coastal portions of Marin and San Mateo counties, from Tomales Bay in the north to Pescadero and Butano Creeks in the south.

The Estuary conveys the waters of the Sacramento and San Joaquin rivers into the Pacific Ocean. Located on the central coast of California (Figure 1-1), the Bay system functions as the only drainage outlet for waters of the Central Valley. It also marks natural topographic separation between the northern and southern coastal mountain ranges. The Region's waterways, wetlands, and bays form the centerpiece of the United States' fourth-largest metropolitan region, including all or major portions of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma counties.

Because of its highly dynamic and complex environmental conditions, the Bay system supports an extraordinarily diverse and productive ecosystem. Within each section of the Bay lie deepwater areas that are adjacent to large expanses of very shallow water. Salinity levels range from hypersaline to fresh water, and water temperature varies throughout the Bay system. These factors greatly increase the number of species that can live in the Estuary and enhance its biological stability.

The Bay system's deepwater channels, tidelands, marshlands, freshwater streams, and rivers provide a wide variety of habitats that have become increasingly vital to the survival of several plant and animal species as other estuaries are reduced in size, ~~or~~ lost to development, or altered by changes in the climate. These areas sustain rich communities of crabs, clams, fish, birds, and other aquatic life and serve both as important wintering sites for migrating waterfowl and as spawning areas for anadromous fish.

1.7 THE CHALLENGE OF CLIMATE CHANGE

Globally, climate change affects water quality and quantity from snowpack to freshwater streams to the ocean. Post-industrial human activity increases in greenhouse gas emissions and changes in land use have and will continue to cause an increase in global temperature, changes in precipitation patterns, rises in sea levels, changes in groundwater levels, and increases in the intensity and frequency of extreme weather events. Extreme weather events – such as drought, heat waves, and large storms – can increase the risk of catastrophic wildfires, and alter stream flows and sediment discharges. These changes in climate and weather impact aquatic systems through numerous mechanisms, including changes in streamflow and watershed sediment discharge that can impede drainage, increase flooding, mobilize contaminants, and desiccate headwater streams. Climate change can also contribute to ocean acidification, changes in the extent and frequency of harmful algal blooms, hypoxia, and changes in aquatic species composition. Rising sea levels are increasing the risk of coastal flooding and erosion, especially

where critical shoreline infrastructure and low-lying communities rely on tidal wetlands and mudflats to help protect them from the rising seas. Also, rising sea levels due to climate change are likely to cause increases in shallow groundwater levels, also called groundwater rise. This could lead to increases in saltwater or brackish water intrusion into utility corridors, basements, and crawl spaces; overland flooding from emergent groundwater; mobilization and spread of pollutants from nearshore cleanup sites into vulnerable areas; and vapor intrusion into buildings and homes.

Climate change acts on a landscape scale, and its effects are not limited by political or jurisdictional boundaries. Therefore, efforts to address climate change require regional, collaborative, cross-jurisdictional approaches to project planning, permitting, and implementation. This is especially true of shoreline adaptation and resilience projects, and related efforts to protect and enhance aquatic ecosystems and their interrelated functions.

The following revisions are proposed for Chapter 2: Beneficial Uses. Text proposed for deletion is in ~~strikeout~~; text proposed for addition is <u>underlined</u>.

2.2.3 WETLANDS

Federal administrative law (e.g., 40 CFR Part 122.2, revised December 22, 1993) defines wetlands as waters of the United States. National waters include waters of the State of California, defined by the Porter-Cologne Act as "any water, surface or underground, including saline waters, within the boundaries of the State" (California Water Code §13050[e]). Wetland water quality control is therefore clearly within the jurisdiction of the State Water Board and Regional Water Boards.

Wetlands are further defined in 40 CFR 122.2 as "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas."

The Water Board recognizes that wetlands frequently include areas commonly referred to as saltwater marshes, freshwater marshes, open or closed brackish water marshes, mudflats, sandflats, unvegetated seasonally ponded areas, vegetated shallows, sloughs, wet meadows, playa lakes, natural ponds, vernal pools, diked baylands, seasonal wetlands, floodplains, and riparian woodlands.

Mudflats make up one of the largest and most important habitat types in the Estuary. Snails, clams, worms, and other animals convert the rich organic matter in the mud bottom to food for fish, crabs, and birds.

Mudflats generally support a variety of edible shellfish, and many species of fish rely heavily on the mudflats during at least a part of their life cycle. Additionally, San Francisco Bay mudflats are one of the most important habitats on the coast of California for millions of migrating shorebirds.

Another important characteristic of the Estuary is the fresh, brackish, and salt water marshes around the Bay's margins. These highly complex communities are recognized as vital components of the Bay system's ecology. Most marshes around the Bay have been destroyed through filling and development. The protection, preservation, and restoration of the remaining marsh communities are essential for maintaining the ecological integrity of the Estuary.

Identifying wetlands may be complicated by such factors as the seasonality of rainfall in the Region. Therefore, in identifying wetlands considered waters of the United States, the Water Board will consider such indicators as hydrology, hydrophytic plants, and/or hydric soils for the purpose of mapping and inventorying wetlands. The Water Board will, in general, rely on the federal manual for wetland delineation in the Region when issuing Clean Water Act Section 401 water quality certifications (U.S. Army Corps of Engineers (Corps) Wetlands Delineation Manual, 1987). In the rare cases where the U.S. EPA and Corps guidelines disagree on the boundaries for federal jurisdictional wetlands, the Water Board will rely on the wetlands delineation made by the U.S. EPA or the California Department of Fish and ~~Game~~ <u>Wildlife</u> (~~CDFG~~<u>CDFW</u>). For the purpose of mapping and inventorying wetlands, the Water Board will rely on the protocols and naming conventions of the National Wetlands Inventory (NWI) prepared by the U.S. Fish and Wildlife Service (USFWS).

Many individual wetlands provide multiple benefits depending on the wetland type and location. There are many potential beneficial uses of wetlands, including Wildlife Habitat (WILD);

Preservation of Rare and Endangered Species (RARE); Shellfish Harvesting (SHELL); Water Contact Recreation (REC1); Noncontact Water Recreation (REC2); Commercial, and Sport Fishing (COMM); Marine Habitat (MAR); Fish Migration (MIGR); Fish Spawning (SPAWN); and Estuarine Habitat (EST). Some of these general beneficial uses can be further described in terms of their component wetland function. For example, many wetlands that provide groundwater recharge (GWR) also provide flood control, pollution control, erosion control, and stream baseflow.

Table 2-3 shows how beneficial uses are associated with different wetland types. Table 2-4 lists and specifies beneficial uses for 34 significant wetland areas within the Region; generalized locations of these wetlands are shown in Figure 2-11. It should be noted that most of the wetlands listed in Table 2-4 are saltwater marshes, and that the list is not comprehensive.

The Water Board has participated in completing the Baylands Ecosystem Habitat Goals Report (1999) and the Baylands Ecosystem Species and Community Profiles (2000), which were written by scientists and managers in the Region in order to recommend sound wetland restoration strategies. The 2015 Baylands Ecosystem Habitat Goals Update: Climate Change - What We Can Do updates these strategies to respond to climate change. Other efforts around the Bay to locate wetland sites include the San Francisco Estuary Institute's (SFEI) EcoAtlas ~~Baylands Maps (Baylands Maps) and Bay Area Wetlands Project Tracker (Wetlands Tracker), and the Wetland Tracker managed by the San Francisco Bay Joint Venture~~. Because of the large number of small and non-contiguous wetlands, it is not practical to delineate and specify beneficial uses of every wetland area. Therefore, beneficial uses may be determined site specifically, as needed. Chapter 4 of this Plan contains additional information on the process used to determine beneficial uses for specific wetland sites.

The following revisions are proposed for Chapter 4: Implementation Plans. Text proposed for deletion is in ~~strikeout~~; text proposed for addition is underlined.

4.23 WETLAND PROTECTION AND MANAGEMENT

Wetlands and related habitats comprise some of the Region's most valuable natural resources. Wetlands provide critical habitats for hundreds of species of fish, birds, and other wildlife; offer open space; and provide many recreational opportunities. Wetlands also serve to enhance water quality, through such natural functions as flood control and erosion control, stream bank stabilization, and filtration and purification of surface water.

The Water Board will refer to the following for guidance when permitting or otherwise acting on wetland issues:

- Governor's Executive Order W-59-93 (signed August 23, 1993; also known as the California Wetlands Conservation Policy, or the "No Net Loss" policy);
- Senate Concurrent Resolution No. 28; and
- Water Code Section 13142.5 (applies to coastal marine wetlands).

The goals of the California Wetlands Conservation Policy include ensuring "no overall net loss," achieving a "long-term net gain in the quantity, quality, and permanence of wetlands acreage and values ...", and reducing "procedural complexity in the administration of state and federal wetlands conservation programs."

Senate Concurrent Resolution No. 28 states, "It is the intent of the legislature to preserve, protect, restore, and enhance California's wetlands and the multiple resources which depend on them for the benefit of the people of the state."

Water Code Section 13142.5 states, "Highest priority shall be given to improving or eliminating discharges that adversely affect ... wetlands, estuaries, and other biologically sensitive sites."

The Water Board may also refer to the most recent version of the San Francisco Estuary ~~Project's Comprehensive Conservation and Management Plan (2007)~~ Partnership's Estuary Blueprint: Comprehensive Conservation and Management Plan (CCMP) for recommendations on how to effectively participate in a Region-wide, multiple-agency wetlands management program.

4.23.1 Baylands Ecosystem Habitat Goals

Consistent with the California Wetlands Conservation Policy, the Water Board participated in the preparation of ~~two~~ three planning documents for wetland restoration around the Estuary: Baylands Ecosystem Habitat Goals (1999), ~~and Baylands Ecosystem Species and Community Profiles (2000)~~Baylands Ecosystem Species and Community Profiles (2000), and The Baylands and Climate Change: What We Can Do (2015), together known as the Habitat Goals reports. The 1999 Habitat Goals report articulated the values of different bayland habitats and established an ambitious goal of protecting and restoring 100,000 acres of tidal wetlands around the Bay. The 2015 report emphasized the importance of establishing complete tidal wetland systems with robust physical and ecological connections between the Bay, tidal wetlands, estuarine-terrestrial transition zones (often called ecotones), and watersheds to sustain healthy, resilient habitats in the face of climate change.

The Habitat Goals reports provide a starting point for coordinating and integrating wetland planning and regulatory activities around the Estuary. The Habitat Goals reports identify and specify the beneficial uses and/or functions of existing wetlands and suggest wetland habitat goals for the baylands, defined in the Habitat Goals reports as shallow water habitats around the San Francisco Bay between maximum and minimum elevations of the tides. The baylands ecosystem includes the baylands, adjacent habitats, and their associated plants and animals. The boundaries of the ecosystem vary with the bayward and landward movements of fish and wildlife that depend upon the baylands for survival. The Habitat Goals reports were the non-regulatory component of a conceptual regional wetlands management plan ~~from~~ that began in the mid-1990's.

4.23.2 Determination of Applicable Beneficial Uses for Wetlands

Beneficial uses of water are defined in Chapter 2 Beneficial Uses and are applicable throughout the Region. Chapter 2 also identifies and specifies the beneficial uses of 34 significant marshes within the Region (~~Table 2-3~~Table 2-4). Chapter 2 indicates that the listing is not comprehensive and that beneficial uses may be determined site-specifically. In making those site-specific determinations, the Water Board will consider the Habitat Goals reports, which provide a technical assessment of wetlands in the Region and their existing and potential beneficial uses. In addition to the wetland areas identified in Chapter 2, the Habitat Goals reports identified additional wetlands in the Region as having important habitat functions. Because of the large number of small and non-contiguous wetlands within the Region, it is not practical to specify beneficial uses for every wetland area. Therefore, beneficial uses will frequently be specified as needed for a particular site. This section provides guidance on how beneficial uses will be determined for wetlands within the Region.

Information contained in the Bay Area Aquatic Resource Inventory (BAARI) prepared by the San Francisco Estuary Institute, Habitat Goals reports, the National Wetlands Inventory (NWI) prepared by the U.S. Fish and Wildlife Service (USFWS), and in the scientific literature regarding the location and areal extent of different wetland types will be used as initial references for any necessary beneficial use designation. The NWI is the updated version of the USFWS's Classification of Wetlands and Deepwater Habitats of the United States (Cowardin, et al. 1979), which is incorporated by reference into this plan, and was previously used by the Water Board to identify specific wetland systems and their locations. BAARI, ~~The~~ the updated NWI, or other appropriate methods will continue to be used to locate and identify wetlands in the Region. A matrix of the potential beneficial uses that may be supported by each USFWS wetland system type is presented in ~~Table 2-4~~Table 2-3.

It should be noted that, while BAARI, the Habitat Goals reports, and USFWS's NWI wetlands classification system are useful tools for helping to establish beneficial uses for a wetland site, it is not suggested that these tools be used to formally delineate wetlands.

4.23.3 Hydrology

Hydrology is a major factor affecting the beneficial uses of wetlands. To protect the beneficial uses and water quality of wetlands from impacts due to hydrologic modifications, the Water Board will carefully review proposed water diversions and transfers (including groundwater pumping proposals) and require or recommend control measures and/or mitigation as necessary and applicable.

4.23.4 Wetland Dredge or Fill

The beneficial uses of waters of the state, including wetlands, are frequently affected by dredging, diking, and filling. Pursuant to Section 404 of the Clean Water Act, discharge of dredged or fill material to waters of the United States must be performed in conformance with a permit obtained from the U.S. Army Corps of Engineers (Corps) prior to commencement of the fill activity. Under Section 401 of the Clean Water Act, the state must certify that any permit issued by the Corps pursuant to Section 404 will comply with water quality standards established by the state (e.g., Basin Plans or statewide plans), or can deny such certification, with or without prejudice. In California, the State and Regional Water Boards are charged with implementing Section 401. California's Section 401 regulations are at Title 23, CCR, Division 3, Chap. 28, Sections 3830-3869. The State Water Resources Control Board's "Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State" supplements these regulations and applies to most discharges of dredged or fill material to waters of the state. Pursuant to these regulations, the Water Board and/or the Water Board's Executive Officer have the authority to issue or deny Section 401 water quality certification. The certification may be issued with or without conditions to protect water quality.

The Water Board has independent authority under the Water Code to regulate discharges of waste to ~~wetlands (~~waters of the ~~)~~state, including wetlands, that would adversely affect the beneficial uses of those ~~wetlands~~waters through waste discharge requirements or other orders. The Water Board may choose to exercise its independent authority under the Water Code in situations where there is a conflict between the state and the Corps, such as over a jurisdictional determination or in instances where the Corps may not have jurisdiction. In situations where there is a conflict between the state and the Corps, such as over a jurisdictional determination or in instances where the Corps may not have jurisdiction, the Water Board may choose to exercise its independent authority under the Water Code.

The regulation of "isolated" waters determined not to be waters of the U.S. is one such instance where the Corps does not have jurisdiction. The U. S. Supreme Court, in its 2001 decision in Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers (the "SWANCC decision") determined that certain isolated, non-navigable waters are not waters of the U.S., but are the province of the states to regulate. The Water Code provides the State and Regional Water Boards clear authority to regulate such isolated, non-navigable waters of the state, including wetlands. To address the impacts of the SWANCC decision on the waters of the state, the State Water Board issued Order No. 2004-0004-DWQ in 2004, General WDRs for dredged or fill discharges to waters deemed by the Corps to be outside of federal jurisdiction. It is the intent of these General WDRs to regulate a subset of the discharges that have been determined not to fall within federal jurisdiction, particularly those projects involving impacts to small acreage or linear feet and those involving a small volume of dredged material.

Order No. 2004-004-DWQ does not address all instances where the Water Board may need to exercise its independent authority under the Water Code. In such instances, dischargers and/or affected parties will be notified with 60 days of the Water Board's determination and be required to file a report of waste discharge.

For proposed dredge or fill activities deemed to require mitigation, the Water Board will require the applicant to locate the mitigation project within the same section of the Region, wherever feasible. The Water Board will evaluate both the project and the proposed mitigation together to ensure that there will be no net loss of wetland acreage and no net loss of wetland functions. The Water Board may consider such sources as the Habitat Goals reports, the San Francisco Estuary ~~Project's~~

~~Comprehensive Conservation and Management Plan,~~Partnership's Estuary Blueprint/CCMP, the San Francisco Bay Shoreline Adaptation Atlas, the Aquatic Resource Type Conversion Evaluation Framework, or other ~~approved watershed management plans~~technical guidance when determining appropriate ~~"out-of-kind"~~ mitigation.

The Water Board uses the U.S. EPA's Section 404(b)(1), "Guidelines for Specification of Disposal Sites for Dredge or Fill Material," dated December 24, 1980, which is incorporated by reference into this plan, in determining the circumstances under which wetlands filling may be permitted.

In general, it is preferable to avoid wetland disturbance. When this is not possible, disturbance should be minimized. Mitigation for lost wetland acreage and functions through restoration or creation should only be considered after disturbance has been minimized. Complete mitigation projects should be assessed using established wetland compliance and ecological assessment methods, such as ~~the Wetland Ecological Assessment (WEA) and~~ the California Rapid Assessment Method (CRAM).

4.27 CLIMATE CHANGE AND AQUATIC HABITAT PROTECTION, MANAGEMENT, AND RESTORATION

Climate change adversely impacts aquatic habitats within the San Francisco Bay Region and their beneficial uses through multiple mechanisms including rising sea and groundwater levels, changes in watershed flows of freshwater and sediment, more frequent and severe storm surges, floods, and droughts, and wetland drowning and downshifting. Efforts to prevent or minimize these impacts with traditional, static armoring and infrastructure such as levees, seawalls, and rock revetments (collectively referred to as "grey" infrastructure) can in some circumstances exacerbate erosion, flooding, and habitat loss. These risks are especially acute in and near the baylands and low-lying areas of the Pacific Ocean shoreline, where climate change impacts to watersheds are likely to be compounded by impacts from rising sea and groundwater levels.

To help assess these risks and support the long-term resilience and beneficial uses of aquatic habitats in the region, the Water Board has participated in the development of multiple collaborative regional science and guidance documents, including the 1999 and 2015 Baylands Goals reports (see Section 4.23.1), and the San Francisco Bay Shoreline Adaptation Atlas. The Adaptation Atlas delineates the Bay's shoreline areas into cross-jurisdictional landscape units, called operational landscape units, that consider both watershed and bayland conditions, and pairs each unit with a suite of technically feasible nature-based climate change adaptation approaches to support the resilience of the Bay's natural and built communities. Collectively, these reports and their supporting scientific literature are informative resources related to the protection and improvement of beneficial uses in the region's coastal waters. Though these reports focus on San Francisco Estuary habitats, their underlying scientific principles and resulting management recommendations are broadly applicable to coastal and estuarine habitats on the Pacific coast.

When permitting dredge or fill activities in waters of the state, including wetlands, the Water Board must consider how numerous factors, including but not limited to climate change, influence the direct, indirect, and cumulative impacts of dredge or fill activities on ecosystem functions. The following questions may be relevant and can help the Water Board consider the reasonably foreseeable influence of climate change and related factors in project permitting and assess if the project's adverse impacts to waters of the state have been appropriately avoided, minimized, and compensated where required.

1. **Is the proposed project design, as well as assessment of its near-term and long-term impacts at site- and landscape-scales, based on the best available science describing climate change and its influence on the environment?** Projects should be based on the best available science on the anticipated future conditions over the life of the project, including but not limited to any reasonably foreseeable changes in (1) sea levels and nearshore groundwater levels; (2) the timing, frequency, intensity, and duration of seasonal precipitation, watershed runoff, Delta outflow, and wave events; and (3) the supply of sediment available to maintain healthy coastal habitats. Projects should be designed to avoid/minimize direct, indirect, and cumulative impacts by accommodating existing and likely future physical and ecological drivers and conditions at the project site. Sometimes, future conditions are presented in probabilistic risk aversion categories. In such cases, a project should be based on the appropriately protective risk aversion approach to ensure that water quality impacts from project performance are avoided and minimized where practicable.

2. **Is the proposed project designed as part of a phased adaptation strategy that anticipates potential future projects and accommodates these projects in a manner that protects future beneficial uses of the site and its landscape?** Phased adaptation strategies are actions to provide flood protection at different climate change thresholds over time. Initial actions are designed to provide flood protection in the near-term while allowing for a range of future actions to address uncertainty and allow flexibility over the long term. Preferable actions will maintain long-term lines of flood defense along San Francisco Bay and the Pacific Ocean as far landward as practicable to minimize the isolation of wetlands and waters behind flood management infrastructure, reduce the risk of flooding of low-lying areas by surface water or groundwater, and create space for the restoration of complete estuarine wetland systems and other nature-based adaptation measures.

3. **Is the proposed project designed within a landscape-scale, cross-jurisdictional framework, such as an operational landscape unit?** Climate change operates on a landscape-scale. Therefore, strategies to address climate change are more likely to be successful in the long-term if they are planned, designed, permitted, and implemented on a landscape-scale, and not limited by political boundaries. Projects designed to consider current and anticipated future conditions not just at the project site, but also the broader landscape within which it is embedded are likely to have fewer long-term direct, indirect, and cumulative impacts than projects that only address near-term, site-specific conditions. In some cases, the least impacting project may be one that spans multiple jurisdictions, such as parcel or municipal boundaries. Projects that avoid or minimize direct impacts at the project site only to trigger indirect and/or cumulative impacts off-site are not preferable.

4. **Does the proposed project utilize practicable natural and/or nature-based design features, or a combination of traditional and nature-based features?** Properly designed and sited, projects that facilitate and/or leverage natural physical and ecological forms and processes in the long-term, and on a landscape-scale, are more likely to support beneficial uses presently and in the future than designs that impede those processes. Preferred nature-based design features include, but are not limited, to the following:

    a. **Living shorelines,** which in the Region typically include shallow subtidal elements, such as nearshore oyster reefs, beds of submerged aquatic vegetation, and combinations thereof, that attenuate wave energy along shorelines, help stabilize nearshore sediment, provide valuable subtidal nursery habitat for estuarine fish and invertebrates, and support pelagic food webs. Living shorelines are best suited for areas of San Francisco Bay and Tomales Bay with appropriate depths, salinities, substrates, and turbidity to support target species

(e.g., native oysters (*Ostrea lurida*), eelgrass (*Zostera marina*), sago pondweed (*Stuckenia pectinata*), and widgeongrass (*Ruppia maritima*)).

b. **Beaches** composed of sand, shell, gravel, cobble, or combinations thereof, held in place by either natural or artificial headlands (groins). Beaches dissipate wave energy, respond dynamically to changing wave conditions, naturally armor shorelines from erosion, and provide valuable habitat for estuarine plants and wildlife. Beaches are generally well-suited for wave-exposed areas and can be combined with other nature-based approaches such as living shorelines and wetland restoration.

c. **Estuarine wetland protection, enhancement, and restoration** that supports the health and resilience of the Region's natural and built communities. Estuarine wetlands attenuate wave energy, provide temporary storage for floodwaters, support local groundwater recharge, transform and/or sequester pollutants in the water column, sequester carbon, provide habitat for a broad range of plants, fish, and wildlife, and support recreational and educational opportunities. Estuarine wetland restoration projects should be located and designed to maximize the connectivity and resilience of complete wetland habitats that span supratidal, intertidal, and subtidal habitats. Project designs should account for the physical and ecological processes that support accretion of mineral and organic sediment, native plant diversity and succession, the provision of internal (within-wetland) and external (along the edge of the wetland) high tide refugia, and connectivity to subtidal, fluvial/floodplain, and terrestrial habitats.

d. **Estuary-watershed reconnection** actions that connect estuarine wetlands and mudflats with the rivers, creeks, and flood management channels that drain their adjacent upslope watersheds, as well as actions to reduce or eliminate obstacles to the downstream flow of freshwater and sediment (e.g., dam removal). Estuarine-watershed reconnection helps foster resilient, diverse habitats by supplying freshwater and sediment to estuarine wetlands and mudflats, restoring estuarine-fluvial-terrestrial transition zones, and creating space and mechanisms for plants, fish, and wildlife to move between estuarine, floodplain, and riparian ecosystems.

e. **Strategic sediment placement** that helps estuarine wetlands and mudflats keep pace with rising sea levels by artificially supplementing the volume of sediment available to support accretion. These approaches can be especially useful in locations with limited estuarine and/or watershed sediment supplies, and where mudflats and wetlands at risk of drowning provide critical ecosystem services.

f. **Ecotone and treated-wastewater horizontal levees** with gradually sloped (typically 15:1 horizontal to vertical ratio or greater) bayward sides that can increase the footprint and functions of the estuarine-terrestrial transition zone at the landward edge of tidal wetlands. Ecotone levees are levees that support estuarine-terrestrial transition zone habitats. When designed to include the subsurface seepage of treated wastewater, they are often called horizontal levees. Ecotone levees create estuarine-terrestrial transition zones and attenuate wave energy; horizontal levees can perform these functions and restore freshwater-brackish-saline wetland gradients that have largely been lost throughout the Estuary. Ecotone and horizontal levees are best suited for locations where they will be fronted by tidal wetlands, both to improve landscape-scale ecological functions and to reduce the risk of erosion of the levee toe. They typically require considerable volumes of material to construct, and therefore should be built as far landward as feasible to minimize settling and maximize the footprint of in-estuary habitat restoration. Both levee types should be carefully monitored and, if needed, adaptively managed to ensure their long-term resilience and functionality.

g. **Migration space preparation** that facilitates the long-term, sea level rise-driven transgression of estuarine wetland habitats over adjacent uplands. These areas can be protected, enhanced, or restored to improve the ecosystem functions of wetlands and the estuarine-terrestrial transition zone under existing and anticipated future conditions (i.e., with sea level rise). This approach is especially important in less intensively urbanized areas of the Region, such as the north shore of San Pablo Bay, Suisun Marsh, and rural Marin and San Mateo Pacific coasts, where estuarine habitats can be reconnected to rivers and creeks (see estuary-watershed reconnection approach above) as well as terrestrial habitats.

The Water Board considers cumulative impacts to the aquatic ecosystem when permitting dredge or fill discharges. Projects that maximize the use of nature-based features and minimize reliance on grey infrastructure, such as rip-rap, revetments, traditional (non-ecotone or horizontal) levees, seawalls, bulkheads, armored channels, and other non-nature-based approaches, generally have fewer cumulative impacts than grey infrastructure. As a result, nature-based or hybrid features that combine nature-based measures are generally preferable to alternatives that only include traditional shoreline hardening through grey infrastructure. Nature-based climate change adaptation projects along the Pacific Ocean shoreline will be subject to more intensive and sustained wave action than projects in smaller and shallower embayments such as San Francisco and Tomales Bays. In addition, many estuarine wetlands in the Region along the Pacific are located landward of sandbars/beach berms that seasonally open and close in response to waves and watershed flows; they are functionally different from tidal wetlands in the San Francisco baylands. Nature-based climate change adaptation features should be appropriate to the physical setting in which they are located.

5. **For a proposed dredge or fill activity, what are the near- and long-term direct, indirect, and cumulative impacts to the acreage, functions, and values of waters of the state when considering the reasonably foreseeable conditions from climate change?** Some dredge or fill activities, such as the construction of rip-rap or other similar grey infrastructure, can avoid near-term impacts to the acreage, functions, and values of waters of the state only to cause long-term impacts within the context of climate change. Other dredge or fill activities, such as the construction of natural and nature-based features described above under question 4, can generate near-term impacts to the acreage, functions, and values of waters of the state, but over the long term have less impacts within the context of climate change. In fact, these projects can have long-term benefits. Thus, understanding both the near- and long-term impacts of dredge or fill activities when considering the reasonably foreseeable conditions from climate change is important to assess the totality of impacts. Assessing long-term impacts under climate change conditions can be difficult, especially considering uncertainties about future rates of sea level rise, the influence of extreme events, local and regional planning decisions, and how landscapes could change in response to these and other factors. To reduce uncertainties and help identify the circumstances under which proposed dredge or fill discharges appropriately avoid, minimize, or compensate for impacts to waters of the state, the following questions may be helpful:

   a. **Environmental drivers:**

      i. What are the primary hydrologic, geomorphic, and ecological drivers of beneficial uses and habitat resilience at the site- and landscape-scale, and how are they likely to influence the landscape in the near- and long-term?

ii. Where and how are processes such as upland migration (transgression), erosion, progradation, accretion, and/or drowning likely to impact the condition, location, and distribution of different habitat types?

iii. How might the proposed dredge or fill activities influence these drivers?

b. Impacts of no action:

i. How would the affected landscapes be likely to evolve in the absence of the proposed dredge or fill activities?

ii. Given the likely range of anticipated environmental drivers, would the absence of the proposed activities likely result in less diverse, resilient, and/or complete habitats in the long-term?

c. Coherent landscapes:

i. Are the proposed dredge or fill activities geographically and geomorphically situated and designed to work with both site-scale and landscape-scale natural processes, such as the movement of water and sediment, shifts in plant communities, and the movement of fish and wildlife between different habitats?

ii. Will the proposed activities enhance or impede the ability of these natural processes to exert work on the landscape?

d. Type conversions: Some dredge or fill activities may convert one type of water of the state to another (e.g., salt pond to tidal flat/tidal wetland), or convert one component of the estuarine wetland ecosystem to another (e.g., tidal wetland to estuarine-terrestrial zone, tidal wetland to high tide refugia, or tidal wetland to tidal channel). The overall impacts of proposed wetland type conversions can be assessed using technical guidance such as the Aquatic Resource Type Conversion Evaluation Framework.

i. Does the landscape setting, including but not limited to local climate, hydrology, sediment supply, degree of urbanization, habitat connectivity, and geomorphic setting, support the intended habitat type?

ii. Does the intended habitat type require intensive management that will have to be funded and implemented in the long-term?

iii. What ecosystem functions will be gained or lost through type conversion, and what is the potential timing and magnitude of these changes? How are these changes likely to influence ecosystem functions within the broader landscape?

iv. Is the proposed type conversion consistent with strategies developed by collaborations of stakeholders to achieve regional goals such as recovering rare and/or historic habitat types, improving landscape connectivity/complexity, and/or supporting long-term habitat resilience?

BACWA BAY AREA CLEAN WATER AGENCIES

DRAFT

BACWA FY23 BUDGET	Line Item Description	FY23 Budget	FY23 NOTES
REVENUES & FUNDING			
Dues	Principals' Contributions	$527,250	FY23: 2% increase 5 @ $105,450
	Associate & Affiliate Contributions	$187,793	FY23: 2% increase. 12 Assoc: $8702; 47 Affiliate: $1743
Fees	Clean Bay Collaborative	$675,000	Prin: $450,000; Assoc/Affil: $225,000
	Nutrient Surcharge	$1,400,000	See Nutrient Surcharge Spreadsheet
	Member Voluntary Nutrient Contributions		
Other Receipts	AIR Non-Member	$7,217	2% increase (Santa Rosa)
	BAPPG Non-Members	$4,033	2% increase (Sta Rosa, Sac Reg'l, Vacaville) $1,344/each
	Other		
Fund Transfer	Special Program Admin Fees (WOT)	$5,202	
	BACC Admin Fees	$36,000	400 hours of AED support $90/hr
	BABC Admin Fees	$6,000	ED, AED and RPM support
Interest Income	LAIF	$4,000	BACWA, Legal, & CBC Funds invested in LAIF
	Higher Yield Investments		
	Total Revenue	$2,852,495	

BACWA FY23 BUDGET	Line Item Description	FY 23 Budget	FY23 NOTES
EXPENSES			
Labor			
	Executive Director	$204,250	4.2% CPI (SF Bay Metro Area Dec 2021)
	Assistant Executive Director	$86,004	4.2% CPI (SF Bay Metro Area Oct 2021); $70.85/hour; Reflects 1200 hours
	BACC Administrator	$36,000	400 hrs AED support at $90 per hr
	Regulatory Program Manager	$142,223	4.2% CPI (SF Bay Metro Area Dec 2021); $102.12/hour, Reflects 1350 hours
	Total	$468,477	
Administration			
	EBMUD Financial Services	$43,297	2% increase
	Auditing Services	$5,452	Finanical Auditors through EBMUD; per auditor rate schedule
	Administrative Expenses	$8,118	2% increase over FY22
	Insurance	$8,132	15% increase over FY22 actual
	Total	$64,999	
Meetings			

EXPENSES			
	EB Meetings	$2,706	2% increase from FY22
	Annual Meeting	$14,369	2% increase from FY22
	Pardee	$6,668	2% increase from FY22
	Misc. Meetings	$5,412	2% increase from FY22
	Total	**$29,155**	
Communication			
	Website Hosting / Domain registration	$714	2% increase from FY22, Go Daddy website hosting and domain registration
	File Storage	$780	2% increase from FY22, box.net
	Website Development/Maintenance	$1,561	2% increase from FY22
	IT Support (As Needed)	$2,705	2% increase from FY22
	Other Communication	$1,821	2% increase from FY22; MS Exchange, Survey Monkey, PollEv, Zoom, Netfile
	Total	**$7,581**	
Legal			
	Regulatory Support	$2,871	2% increase from FY22
	Executive Board Support	$2,309	2% increase from FY22
	Total	**$5,181**	
Committees			
	AIR	$76,000	$75k consulting support, $1k misc expenses
	AIR support for ACE	$20,000	New for FY23
	BAPPG	$130,000	Includes CPSC @ $10,000, OWOW @ $10,000, and Pest. Reg Spt. @ $60,000.
	Biosolids Committee	$0	
	Collections System	$1,000	Same as FY23
	InfoShare Groups	$1,000	
	Laboratory Committee	$6,400	TNI standard training and meetings
	Permits Committee	$1,000	
	Pretreatment	$1,000	
	Recycled Water Committee	$20,000	
	Misc Committee Support	$45,000	
	Manager's Roundtable	$1,000	
	Total	**$302,400**	
Collaboratives			
	Collaboratives		
	State of the Estuary (SFEP-biennial)	$20,000	Bienniel in Odd Fiscal Years. (Paid bienniely in odd years for even year conference)
	Arleen Navarret Award	$2,500	Bienniel in Even Fiscal Years. Increase in FY20. 2022 Award to be paid in FY23
	BayCAN	$5,000	
	Stanford ERC (ReNUWIt)	$0	Program is sunsetting

EXPENSES			
	Bay Area One Water Network	$5,000	New for FY23
	Bruce Wolf Scholarship	$4,000	FY22, FY23, FY24, FY25 FY26
	Misc	$1,500	NBWA
	Total	**$38,000**	
Other			
	Unbudgeted Items		
	Other	$0	
		$0	
Tech Support			
	Technical Support		
	Nutrients		
	Watershed Permit NMS Contribution	$1,800,000	Advance funding for 2nd Watershed Permit Sciece Studies; Final $ TBD
	NMS Voluntary Contributions	$0	
	Additional work under permit	$100,000	Includes HDR PO for $225k spread out over FY20-24.
	Regional Study on Nature Based Systems	$248,811	SFEI $500K, expires 06/30/2022
	Regional Recycling Evaluation	$63,525	HDR $154K, expires 12/31/2023
	Nutrient Workshop(s)	$0	Pilot Studies/Plant Review/Innovative Technologies
	NMS Reviewer	$50,000	M. Connor Contract
	General Tech Support	$100,000	AB617 emissions factors, PFAS, other nutrient support
	CEC Investigations	$140,000	PFAS Study Phase II
	Risk Reduction	$12,500	APA FSS completed $12,500 contract in FY20, CIEA will complete $12,500 contract in FY23
	Total	**$2,514,836**	
	TOTAL EXPENSES	**$3,430,628**	
	NET INCOME BEFORE TRANSFERS	**-$578,133**	
	TRANSFERS FROM RESERVES	**$578,133**	aligns with strategy of drawing down reserves to lessen impact of Nutrient Surcharge
	NET INCOME AFTER TRANSFERS	**$0**	
	TOTAL OPERATING BUDGET	**$915,792**	
	OPERATING RESERVE	**$228,948**	

	FY22 rates	FY 22 hours	FY22 contract	Proposed FY23 increase*	FY23 rates	FY 23 hours	FY23 contract
ED	n/a	n/a	$190,000	7.50%	n/a	n/a	$204,250
AED	$68/hr	1200	$81,600	5.40%	$71.67/hr	1200	$86,004
RPM	$98/hr	1300	$127,400	7.50%	$105.35/hr	1350	$142,223

*ED and RMP rates did not increase in FY22; AED rate increased 2.0%. $432,477

Budget & Workplan

FISCAL YEAR 2023

BACWA
BAY AREA
CLEAN WATER
AGENCIES

Table of Contents

INTRODUCTION

The Bay Area Clean Water Agencies (BACWA) is a joint public powers agency created by a 1984 Joint Powers Agreement (JPA) between the Central Contra Costa Sanitary District (CCCSD), the East Bay Dischargers Association (EBDA), the East Bay Municipal Utility District (EBMUD), the City of San Francisco, and the City of San Jose (collectively, "the Principal Agencies"). The JPA requires approval of an annual budget and workplan divided into three parts: overhead (Part A), general benefit programs (Part B), and special benefit programs (Part C).

The JPA requires that revenues for each fiscal year be equivalent to anticipated expenditures. Expenditures for Management & Administration (Part A), and General Benefit Programs (Part B) are funded by all BACWA members because these programs are carried out on behalf of all member agencies.

Since adoption of the Annual Budget for fiscal year 1984, and each fiscal year thereafter, the Executive Board has allocated Part A and Part B costs pursuant to authority provided in Section 10 of the Joint Powers Agreement among Member Agencies in the following manner (the "Allocation Method"): a. a stated portion to the Original Signatory Members in equal shares; and b. the balance to Associate and Affiliate Members based on one or more of several factors consisting of the type of agency, size of plant, metals loadings, and total inorganic nitrogen loadings in the ratio that their share is to that of the total Associate and Affiliate Membership. On September 26, 2014 BACWA formally adopted this allocation through Executive Board Resolution R-2015-01. BACWA currently has two General Benefit Programs: the core BACWA program to support member agencies and the Clean Bay Collaborative. Expenditures for Special Benefit Programs (Part C) are funded by those agencies that elect to fund those programs because those benefits accrue primarily to those participating agencies.

In FY22 BACWA had three Special Benefit Programs, all of which conform to the JPA requirements under Part C.: Water Operator Training, the Bay Area Biosolids Coalition (BABC), and the Bay Area Chemical Consortium (BACC). The Water Operator Training program, also known as the Bay Area Consortium for Water/Wastewater Education (BACWWE) is a group of BACWA agencies who provide funding for operator educational opportunities. The Bay Area Biosolids Coalition is comprised of a subset of BACWA members who are pursuing alternatives for biosolids beneficial reuse and/or disposal in order to meet regulatory requirements for diversion of organics from landfills. The Bay Area Chemical Consortium is comprised of BACWA agencies as well as additional public water and wastewater agencies who work together to develop group chemical bids.

The purpose of this document is to fulfill the requirements of the JPA for Fiscal Year 2023 (FY22). This workplan and budget specify the purpose of each of BACWA's programs during FY22, the methods by which they will be carried out, the products that will be developed, and the persons responsible for implementation. The schedule for implementation of these programs is July 1, 2022 through June 30, 2023.

STRATEGIC PLAN

BACWA adopted its first strategic plan and accompanying workplan in 2009. BACWA reformulated its strategic plan in 2020 and adopted updates in 2022. The strategic plan states the mission, vision values and goals of the organization as demonstrated in the work undertaken annually by the agency.

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

MANAGEMENT AND ADMINISTRATION (PART A)

BACWA has administrative and management expenses that are necessary for the agency to carry out its non-program related core functions (JPA, Section 9). They include expenses related to financial management, insurance, and organizational support. Administration of BACWA is carried out under contract by an Executive Director (ED), Assistant Executive Director (AED), and Regulatory Program Manager (RPM) selected by the Executive Board. Treasurer services are provided through an agreement with EBMUD who manages BACWA's finances and oversees the annual audit which is conducted by an independent auditor. The objective of these expenditures is to ensure effective, efficient, and transparent management of BACWA, which serves BACWA's goal to practice good governance. BACWA management and administration are funded through BACWA dues.

Management & Administration (A)				
Goal	**Deliverables/Outcomes**	**Lead**	**FY23 Budget**	**Budget Line**
A. Practice Good Governance (**Labor, Meetings, Legal, Administration**)	**A.1.** Monthly Treasurer Reports,	ED, AED, EBMUD	$43,297	Administration/ EBMUD Financial Services
	A.2. Annual audit	ED, AED, Auditor	$5,452	Administration/ Auditing Services
	A.3. Miscellaneous Operational Expenses	ED, AED, RPM	$8,118	Administration/ Administrative Expenses
	A.4. Insurance to manage organizational risk	ED, AED	$8,132	Administration/ Insurance
	A.5. Compliance with organizational legal requirements	ED, AED	$2,309	Legal/Executive Board Support
	A.6. Program Administration and Operations Support	ED, AED, RPM	$130,864	Labor/ ED (15%), RPM (10%) AED (100%),
	A.7. BACWA Executive Board Meetings & Administrative Expenses	ED, AED	$2,706	Meetings/Exec. Board Meetings
	A.8. Pardee Technical Seminar & Administrative Expenses	ED, AED	$6,668	Meetings/ Pardee Seminar
	A.9 Miscellaneous Meeting & Administrative Expenses	ED, AED, RPM	$5,412	Meetings/ Misc. Meetings
	A.10. File Storage	ED, AED	$780	Communications/File Storage
	A.11. IT Support (As Needed)	ED, AED	$2,705	Communications/IT Support
	A.112. Software (As Needed)	ED, AED	$1,821	Communications/Software
		TOTAL	**$218,264**	

GENERAL BENEFIT PROGRAMS (PART B)

There are two aspects of BACWA's general benefit program: the core BACWA Member Agency program and the technically–focused Clean Bay Collaborative (CBC) program. Activities in these Programs are supported by the ED, AED, RPM, volunteers who Chair the BACWA Committees, and consultant support as needed.

BACWA MEMBER AGENCY PROGRAM (PART B1)

The **BACWA Member Agency Program (B1)** serves BACWA's goals to (1) exemplify service and responsiveness to members and the public; and to (2) foster collaboration and relationship building with regulators and other stakeholders

These goals are accomplished by providing member agencies with information on regulations, scientific and technical developments; forums for participating in policy discussions and collaborating on mutually beneficial projects; and opportunities to engage with the larger Bay Area environmental community.

Program expenses include support for committee facilitation and special projects; member workshops and trainings; membership in state and national organizations that disseminate information to members; and communication expenses such as the website, newsletters, the annual report, and the annual meeting. The BACWA Member Agency program is funded by BACWA dues.

CLEAN BAY COLLABORATIVE (CBC) (PART B2)

The purpose of the **CBC program (B2)** is to respond to current regulatory requirements and to develop scientific, technical, and industry information to inform future regulations and policies affecting Bay Area POTWs and the environment. These effort support BACWA's goals to: (1) Advocate for regulation based on science; (2) Foster collaboration and relationship building with regulators and other stakeholders; and (3) Pursue regional, multi-benefit solutions to environmental challenges. Program expenses include the costs of targeted special studies and reports requested by or used to inform policy discussions with regulatory agencies, policy strategy development and implementation, and collaborations with statewide organizations to do the same. The CBC program is funded through CBC fees and the Nutrient Surcharge.

Bay Area Clean Water Agency Program (B1)

Goal(s)	Deliverables/Outcomes	Lead	FY23 Budget	Budget Line
B1. Exemplify service and responsiveness to members and the public; and foster collaboration and relationship building with regulators and other stakeholders (**Committees, Labor, Meetings, Administration, Communications, Collaborations**)	**B1.1.** AIR Committee Support - Admin Support - Technical Support	Chair, AED, RPM, Consultant	$76,000	Committees/AIR Comm.
	B1.2. AIR Support for ACE		$20,000	Committees / AIR support for ACE
	B1.3. BAPPG Committee Support - Multiple Programs for public education and outreach, and regulatory advocacy	Chair, AED, RPM, Consultants	$130,000	Committees/BAPPG Comm.
	B1.4. Biosolids Comm. Support - Misc. Expenses	Chair	$0	Committees/Biosolids Comm.
	B1.5. Collection Systems Comm. Support - Misc. Expenses	Chair, RPM	$1,000	Committees/Collection Systems Comm.
	B1.6. InfoShare Groups Support (Ops & Maint/Asset Mgmt) - Misc. Expenses	Chair, RPM	$1,000	Committees/Asset Management and O&M InfoShare Groups
	B1.7. Laboratory Comm. Support - Misc. Expenses	Chair, RPM	$6,400	Committees/Laboratory Comm.
	B1.8. Permits Comm. Support - Misc. Expenses	Chair, RPM	$1,000	Committees/Permits Comm.

	B1.9. Pretreatment Committee, - Misc. Expenses	Chair	$1,000	Committees/Pretreatment Comm.
	B1.10. Recycled Water Comm., Misc. Expenses	Chair, RPM	$20,000	Committees/Recycled Water Comm.
	B1.11 Misc. Committee Support	ED, AED, RPM	$45,000	Committees/ Misc. Comm. Support
	B1.12. Manager's Roundtable, Misc. Expenses	ED, AED	$1,000	Committees/ Manager's Roundtable
	B1.13. Executive Director	Board Chair	$173,612	Labor/ ED (85%)
	B1.14. Legal Support, provide review of regulatory products	ED	$2,871	Legal/ Regulatory Legal Support
	B1.15. Regulatory Program Manager	RPM	$99,556	Labor/ RPM (70%)
	B1.16. Annual Meeting	ED, AED, RPM	$14,369	Meetings/ Annual Meeting
	B.17. Website Hosting	ED, AED, Consultant	$714	Communications/ Website Hosting
	B.18. Website Development/Maintenance	ED, AED, RPM, Consultant	$1,561	Communications/ Website Dev/Maint
	B1.19. State of the Estuary	ED, AED	$20,000	Collaboratives, State of the Estuary
	B1.20. Arleen Navarret Award	ED, AED	$2,500	Collaboratives, Arleen Navarret Award
	B1.21. BayCAN	ED, AED	$5,000	Collaboratives, New FY22
	B1.22 Bay Area One Water Network		$5,000	Collaboratives, Bay Area One Water Network
	B1.23. Bruce Wolf Scholarship		$4,000	Collaboratives / Bruce Wolf Scholarship
	B1.24. Miscellaneous	ED, AED	$1,500	Collaboratives, Misc.
Clean Bay Collaborative (B2)				
B2. Clean Bay Collaborative (1) Advocate for regulation based on science; (2) Foster collaboration and relationship building with regulators and other stakeholders; and (3) Pursue	**B2.1.** Watershed Permit NMS Contribution	ED, RPM, Consultant	$1,800,000	Tech. Support/ Nutrients/Watershed Permit Obligation
	B2.2. NMS Voluntary Contributions	ED, RPM	$0	Tech. Support/ Nutrients/Watershed/Vol Contributions
	B2.3. Additional Work Needed Under Permit	ED, RPM, Consultant	$100,000	Tech. Support/ Nutrients/Add'l Work Under Permit/ GAR etc.
	B2.4. Regional Study on Nature Based Systems	ED, RPM, Consultant	$248,811	Tech. Support/ Nutrients/Reg'l Study Non-Gray Scape

regional, multi-benefit solutions to environmental challenges.	**B2.5.** Regional Recycled Water Evaluation	ED, RPM	$63,525	Tech. Support/ Nutrients/Member Vol Nutrient Contributions
	B2.6. Nutrient Workshop(s)	ED, RPM, Consultant	$0	Tech. Support/ Nutrient Workshop(s)
	B2.7. NMS Reviewer	Consultant	$50,000	Tech. Support/NMS Reviewer
	B2.8. General Tech Support	ED, RPM, Consultants	$100,000	Tech. Support, General Tech Support: PEEP, PFAS, Nutrient Review
	B2.9. CEC Investigations – support for regional PFAS study	ED, RPM, Consultants	$140,000	Tech Support/CEC studies for POTWs – **New FY22**
	B2.10. Risk Reduction	ED, RPM, Consultants	$12,500	Tech, Support/ Risk Reduction
	B2.1. General Technical and Regulatory Support	ED, RPM	$28,445	Labor/ RPM (20%)
		TOTAL	**$3,176,364**	

SPECIAL BENEFITS PROGRAMS (PART C)

BACWA has three active special benefit programs: Water Operator Training also known as BACWWE, Bay Area Biosolids Coalition (BABC), and Bay Area Chemical Consortium (BACC). These programs are administered under Part C of the JPA Annual Budget and Workplan.

Member dues for Wastewater Operator Training (BACWWE) are optional and are established on an annual basis by its Program members with training offered at community colleges throughout the BACWA service area. In FY22, BACWWE plans to transition to a scholarship-based class reimbursement model to increase the impact of the program and the number of community college courses that qualify.

BABC became a Special Benefits Program in FY 20. BABC is governed by a Steering Committee that establishes its budget and associated revenue needs on an annual basis. BABC funds support the furthering the goal of its strategic plan, which include communicating the value of biosolids, advancing scientific research, supporting the expansion of biosolids land application, and supporting the development of biosolids management options in the Bay Area.

BACC became a Special Benefits Program in FY 20. BACC is an administrative program governed by BACWA and supported by the BACWA ED and AED. 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.

WATER OPERATOR TRAINING (PART C1)		
Deliverables/Outcomes	**Manager**	**FY 23 Budget**
Encourage development of a skilled workforce by offering classes in conjunction with a local community college.	Program Participant Reps; ED, AED	To be determined by member interest.

BAY AREA BIOSOLIDS COALITION (PART C2)		
Deliverables/Outcomes	**Manager**	**FY 23 Budget**
Pursue alternatives for biosolids beneficial reuse and/or disposal in order to meet future regulatory requirements for diversion of organics from landfills	Program Participant Reps; ED, RPM, AED	To be determined by member interest.

BAY AREA CHEMICAL CONSORTIUM (PART C3)		
Deliverables/Outcomes	**Manager**	**FY 23 Budget**
Administer a series of chemical bids for participating agencies.	ED, AED	To be determined by level of effort and expenses associated with program administration and legal reserve development.

FISCAL YEAR 2023 BUDGET

BACWA/CBC	2023 Budget	Notes
REVENUES		
BACWA Principals' Contributions	527,250	2% increase, 5@ $105,450
BACWA Assoc. & Affil. Contributions	187,793	2% increase. 12 Assoc: $8702; 47 Affiliate: $1743
Clean Bay Collaborative (CBC)	675,000	Prin: $450,000; Assoc / Affil: $225,00
Nutrient Surcharge	1,400,000	2nd Watershed Permit Requirement
Voluntary Nutrient Contributions	0	
AIR Non-Members	7,217	2% increase.
BAPPG Non-Members	4,033	2% increase.
Other/Special Program Admin Fees (WOT)	5,202	No increase.
Other/Special Program Admin Fees (BABC)	6,000	Based on staff hours, AED, RPM, and ED
Other/Special Program Admin Fees (BACC)	36,000	400 hours AED support
Interest Income (LAIF)	4,000	Includes BACWA & Nutrient Funds
Interest Income (higher yield Investments)	0	Alternative Investments
TOTAL	**2,852,495**	

EXPENSES		
Labor	**468,477**	
Executive Director	204,250	4.2% CPI (SF Bay Metro Area Dec 2021)
Assistant Executive Director	86,004	CPI (SF Bay Metro Area Dec 2021) $70.85/hr, Reflects 1600 hours / yr
BACC Administrator	36,000	400 hrs AED support at $90 per hr
Regulatory Program Manager	142,223	4.2% CPI (SF Bay Metro Area Dec 2021); $102.12/hour, Reflects 1350 hours
Administration	**64,999**	
EBMUD Financial Services	43,297	2% increase
Auditing Services	5,452	Financial audit through EBMUD
Administrative Expenses	8,118	2% increase
Insurance	8,132	15% increase
Meetings	**29,155**	
EB Meetings	2,706	2% increase.
Annual Meeting	14,369	2% increase.
Pardee	6,668	2% increase.
Misc.	5,412	2% increase.
Communications	**7,581**	
Web Hosting / Domain Registration	714	2% increase.
File Storage	780	2% increase, box.net
Website Development/Maint.	1,561	2% increase.
IT Support (As Needed)	2,705	2% increase.
Other Communications/Software	1,821	2% increase. MS Exchange/Survey Monkey/Poll Everywhere/Zoom/ NetFile
Legal Support	**5,181**	
Regulatory Support	2,871	2% increase
Executive Board Support	2,309	2% increase
BACWA Committees	**307,400**	
AIR	76,000	Consultant support
AIR support for ACE	20,000	New FY23
BAPPG	130,000	Technical support and outreach contracts
Biosolids Committee	0.00	
Collections System	1,000	
InfoShare Groups	1,000	
Laboratory Committee	6,400	TNI standard training and meetings
Permit Committee	1,300	
Pretreatment Committee	1,000	
Recycled Water Committee	20,000	
Misc. Committee Support	45,000	
Manager's Roundtable	1,000	
Collaboratives	**38,000**	
State of the Estuary	20,000	Biennial in odd fiscal years
Arleen Navarret Award	2,500	Biennial in even fiscal years
BayCAN	5,000	
Bay Area One Water Network	5,000	New FY23

Bruce Wolf Scholarship	4,000	FY22, FY23, FY24, FY25 FY26
Misc.	1,500	NBWA
Technical Support	**$2,514,836**	
Nutrients		
Watershed	1,800,000	Advanced funding for 2nd Watershed Permit Science Studies – not to exceed value.
NMS Voluntary Contributions	0	
Additional Work Under Permit	100,000	Includes HDR PO for $225K spread out over FY20-24
Regional Study on Nature Based Systems	248,811	
Regional Recycling Evaluation	63,525	
Nutrient Workshop(s)	0	
NMS Reviewer	50,000	
General Technical Support	100,000	AB617 emissions factors, nutrient technical review, other nutrient support, PFAS
CEC Investigations	140,000	Support for studies through RMP
Risk Reduction	12,500	$25,000 over 5 yrs (FY19-23) 2 Contracts for $12,500 over each FY19, 20, 21, 22
TOTAL	$3,430,628*	

*FY23 Budget Expense Total includes BACC Administration expense and WorkPlan tables A&B do not.

WOT	2023 Budget (Est)	Notes
REVENUES	**0**	
Participant's Contributions	0	Est. depends on member interest.
EXPENSES	**85,200**	
Contract expenses	80,000	Est. depends on member interest.
BACWA Indirect Expenses	5,200	Per BACWA Policy
TOTAL	-85,200	Funding transferred from WOT reserve

BABC	2023 Budget (Est)	Notes
REVENUES	**186,500**	
Participant's Contributions	186,500	Est. depends on member interest.
EXPENSES	**186,500**	
Contract expenses	180,500	Est. depends on member interest.
BACWA Indirect Expenses	6,000	Per BACWA Policy
TOTAL	0	

BACC	2023 Budget (Est)	Notes
REVENUES	**$72,251.25**	
Participant's Contributions	$72,251.25	Est. equivalent to expenses.
EXPENSES	**$72,251.25**	

Bid software	$4067.75	
BACC Legal reserve	$30,000	Target total reserve $150,000 to be built over 5 years.
Miscellaneous expenses	$2,983.50	
BACWA Indirect Expenses	$35,200	Per BACWA Policy, reflect level of effort.
TOTAL	0	

BAY AREA CLEAN WATER AGENCIES
ANNUAL MEETING ROGRAM
May 6 2022
David Brower Center
Berkeley, CA

PRELIMINARY

TIME	DESCRIPTION	SPEAKER
8:30am - 9:00am	**Coffee in the lobby**	
9:00 am - 9:15 am	**Welcome/Introduction**	Amit Mutsuddy
	Year in Review	Lorien Fono, BACWA
9:15 am - 10:30 am	**Regulator Priorities**	**Moderator: TBD**
	Bay Area Air Quality Management District	Jack Broadbent/Greg Nudd
	EPA	Ellen Blake
	San Francisco Bay Regional Water Board staff	Tom Mumley
	State Water Resources Control Board member	Nichole Morgan
	Q&A	
10:30 am - 11:00 am	**Break - Coffee and snacks on the terrace**	
11:00 am - 12:30 pm	**BACWA Hot Topics**	**Moderator: TBD**
	PFAS Study - Phase 1 results and Phase 2 goals	Diana Lin
	Issues in AIR Regulatory Compliance	Courtney Mizutani
	Biosolids - a changing landscape	Sarah Deslauriers
	Resiliency Planning - Sea Level Rise guidance, Sanitary Sewer System WDRs, and more	Mary Cousins
	Q&A	
12:30 pm - 1:30 pm	**Lunch - On the terrace**	
1:30 pm - 1:45 pm	**BACWA Leadership Recognition and Arleen Navarret Award**	**Amit Mutsuddy**
1:45 pm - 2:00 pm	**Nutrients - Overview**	
	Overview of 2nd Watershed Permit/Governance Update	Lorien Fono, BACWA
2:00 pm - 2:35 pm	**Nutrients - Regulatory Update**	**Moderator: TBD**
	2021 Group Annual Report	Mike Falk, HDR
	Nature-Based Solutions Study	Ian Wren, SFEI
	Regional Recycled Water Evaluation	Mike Falk, HDR
	Q & A	
2:35 pm - 3:05 pm	**Nutrients - Technical Update**	**Moderator: TBD**
	Update on the Science Plan and Findings	Dave Senn, SFEI
3:05 pm - 3:15 pm	**Annual Meeting Wrap-Up**	**Amit Mutsuddy**
Exit	**Gather at nearby bar**	

The CASA Education Foundation, East Bay Dischargers Authority, and the Bay Area Clean Water Agencies are proud to present the:

Bruce Wolfe Memorial Scholarship

The Bruce Wolfe Memorial Scholarship honors the former Executive Officer of the San Francisco Bay Regional Water Quality Control Board, an impactful steward of the Bay environment and supporter of expanding diversity in the clean water sector. This scholarship is available to Bay Area applicants whose backgrounds are currently underrepresented in clean water career paths.

Bruce Wolfe received degrees in civil and environmental engineering from Stanford University and went on to pursue a successful career with the San Francisco Bay Regional Water Quality Control Board that was marked by notable achievements in the protection of public health and the environment. Bruce was a passionate leader in the clean water community. He knew how important education was in bettering people and communities. He supported diversity and education throughout his life, and we are proud to honor that tradition and recognize his legacy through this memorial scholarship.

Funded by generous contributions from the Bay Area Clean Water Agencies and the East Bay Dischargers Authority, the Bruce Wolfe Memorial Scholarship will award a $5,000 scholarship to a student from the Bay Area who identifies as a gender other than male and/or whose racial identity includes any mix of BIPOC (black, indigenous, people of color). To learn more about the criteria and eligibility please visit the CASA Education Foundation webpage.

AIR Committee –
Report to BACWA Board

AIR Committee Meeting on: 2/2/2022
Executive Board Meeting Date: 3/18/2022
Committee Co-Chairs: Nohemy Revilla and Jason Nettleton

Committee Request for Board Action: None

Approved Amendments to BAAQMD Regulation 2: Permits

BAAQMD has amended Regulation 2, 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. In response to concerns regarding localized differences in air quality, BAAQMD has made the rules within Regulation 2 more health protective. BAAQMD has amended portions of the permitting rules to help ensure communities that are overburdened by poor air quality and health vulnerabilities are further protected from sources of air pollution. The amendments established a POTW working group to help facilitate the implementation of the amendments and address other concerns related to toxic air contaminant reduction at these facilities and future rule development. The staff report indicates that compliance with the rule will begin July 1, 2022.

AB 617 Criteria Pollutant and Toxic Emissions Reporting **(CTR) and AB 2588 Air Toxics "Hot Spots"** Emission Inventory Criteria and Guidance (EICG) Updates

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 an approach for performing the two-step process with member agencies which will be vetted by members in summer 2022 (the approach will be similar to the 1990 Pooled Emission Estimation Program performed in response to the promulgation of AB 2588). Participating agencies will either contribute financially and/or serve as a sampling location, in order to remain in compliance with air toxics reporting. CASA has updated a one-page summary of this process for your use/reference. This summary can also be used to educate facility staff, as well as BAAQMD staff. In the meantime, POTWs are to report "business as usual" through 2028. If BAAQMD asks for additional data beyond what is currently being collected and reported, please let the AIR Committee know.

BAAQMD Rule 11-18: Risk Reduction from Air Toxic Emissions at Existing Facilities

All POTWs are in Phase II of the Rule 11-18 implementation schedule. The Implementation Working Group met on February 22nd after a long hiatus and is expected to meet every 6 months, or more frequently, if warranted. The BAAQMD is delaying initial requests for information from Phase II facilities until completion of Phase I. For now, your assigned permit engineer will continue to be the primary point of contact for your facility. Please continue to update your emission inventories annually. The emission inventory informs the process that determines whether or not your facility is included in the Rule 11-18 process. They will begin with those plants having an estimated prioritization score >100, located in AB 617 priority communities, which are also considered overburdened communities relative to Rule 2-5. POTWs are expected to respond to the data requests within 2-4 months. In accordance with the Rule 11-18 Implementation Procedures, BAAQMD provides opportunities for public review and comment on site-specific health risk assessment results and risk reduction plans.

If your facility plans to use a source test for Rule 11-18 compliance in the future, please request that the source test protocol be classified as "11-18" and copy Pamela Leong (pleong@baaqmd.gov) when you submit the source test protocol to BAAQMD. There have been some delays in getting source test protocols reviewed in a timely manner, and Pam suggested this as an approach to allow Engineering to request prioritization of source test protocols that will do "double-duty" -- both for compliance with source testing requirements and Rule 11-18 needs.

Climate Change Scoping Plan Update

This statewide program targets carbon neutrality by 2045. Scoping Plan Workshops are being held to get stakeholder feedback and will continue through summer 2022. The next workshop is scheduled for March 15th and will focus on a review of the initial modeling results of Scoping Plan scenarios. A full draft report is expected June 2022, and a final draft in Fall 2022. There are several key programs being developed to achieve the mandate, one of which is the Advanced Clean Fleet Rule targeting zero-emission fleets, with government entities identified as early adopters. Implementation is expected to begin in 2024.

BAAQMD Proposed Regulation 13: Climate Pollutants

BAAQMD Regulation 13 rule development is currently suspended due to COVID-19 and lack of data. However, BAAQMD engaged BACWA to develop a baseline understanding of current methane (and VOC) management practices via a survey to the membership. Thank you to everyone who completed the survey! We will distribute a draft summary report presenting the information for the Committee to review. The summary report includes an interpretation of the best practices and includes a recommendation for a "routine accommodation" for digester cleaning and maintenance (as suggested by members). The summary report will be sent to BAAQMD following review/edits – staff plan to revisit Regulation 13 development in 2022

CARB Potential Amendments to Diesel Engine Off-Road Emission Standards: Tier 5 Criteria Pollutants and Carbon Dioxide Standards

CARB is beginning to explore potential amendments to the off-road diesel engine standards (Tier 5). The rulemaking aims to reduce emissions of nitrogen oxides (NO_x, up to 90 percent) and particulate matter (PM, up to 75 percent) from new, off-road compression-ignition engines compared to what is allowed by today's Tier 4 final emission standards. It is expected to include more stringent exhaust standards for all power categories, including those that do not currently utilize exhaust aftertreatment such as diesel particulate filters (DPFs) and selective catalytic reduction. First-time carbon dioxide (CO_2) emission standards for off-road engines may also be proposed. CARB plans to bring a proposal to the Board in 2024, with implementation of the Tier 5 standards expected to begin in 2028.

BAAQMD Leadership Meeting

The group discussed upcoming topics to cover at future meetings, including: the permitting process (length of time required for permits to be processed), air toxics risk reduction implementation (the statewide two-step process, implementation of Rule 11-18, and the Regulation 2 amendments), and proposed Regulation 13 (climate pollutants) development. The next meeting date is being scheduled to follow the Regulation 2 Working Group meeting.

Member Updates

There are ongoing issues members identified with the unpredictability of interpretation of and approach to addressing BAAQMD regulations by staff, as well as whether timely review of applications will occur that can delay and add costs to projects. Committee members shared experiences with the length of time it has taken to get permits processed. Agencies who would like to share their experiences are welcome to send information to Courtney (see attached email). This information will contribute to context for discussions in the newly established Regulation 2 POTW Working Group which will meet for the first time March 30th. Please send information by March 11th. There was also discussion regarding facilities of similar type (e.g., FOG receiving stations) being permitted differently (as exempt, not permitted, or permitted with odor control requirements), as well as difficulty getting BAAQMD Source Control to approve source tests in a timely manner.

Next AIR Committee Meeting: Wednesday, May 25th, 2022 (Virtual)

Understanding New Requirements for Air Toxics Reporting

California air districts are beginning to adapt recent amendments to the California Air Resources Board's (CARB) Air Toxics "Hot Spots" Program Emission Inventory Criteria and Guidelines (EICG) and the Reporting of Criteria Air Pollutants and Toxic Air Contaminants Regulation (CTR). This fact sheet is to inform your organization of those regulatory updates, how they apply to the wastewater sector, and for your reference in discussions with air district staff.

REGULATORY UPDATES: As part of improving air toxic emissions reporting, the public's access to the data, and reduction strategies for priority communities, the updates to the EICG and CTR:

- Expand the number of compounds to be validated for monitoring and reporting from a total of ~500 to over 1,000 for permitted waste facilities, including wastewater treatment plants (WWTPs).
- Establish criteria for air monitoring AND an approach for the waste sector (i.e., the "two-step" process) to identify a short list of toxics relevant to WWTPs.
- Identify strategies/timelines for emissions reductions (prioritizing overburdened communities).

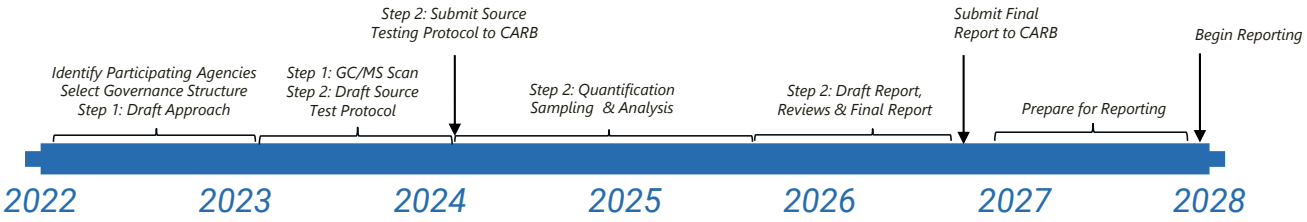
Since most of the 1,000+ compounds do not have approved sampling or laboratory methods and have not been assessed by the Office of Environmental Health Hazard Assessment, health risks associated with these compounds cannot be quantified. In turn, any prematurely reported information will yield erroneous emission estimates, causing confusion and potentially unwarranted alarm for our neighbors.

WASTEWATER SECTOR IMPACTS & RESPONSE: CARB approved a phased compliance approach that allows permitted WWTPs to report business as usual through 2028 while the sector executes the two-step process to:

1. Perform a scan of air samples across various treatment plant unit processes to determine detectable compounds (of the 1,000+ compounds).
2. Quantify the emissions of detectable toxic compounds based on an approved sampling and analysis approach (working with air districts and CARB).

The two-step process will take approximately five (5) years and up to $10 million for the wastewater sector to complete. In the meantime, the wastewater sector is unable to quantify any new air toxic compounds until the completion of the statewide two-step process and must rely upon the results of the two-step process as the "best available data and methods." In other words, no new air toxics need to be reported until 2029.

The winter/spring of 2022 CASA will work with the membership to establish an oversight and cost-recovery structure for the two-step process. Thereafter, about 20 WWTPs will need to sample emitting unit processes in accordance with approved protocols.[1] A tentative schedule of the two-step process is provided below:



For more information or if you have questions, please contact Sarah Deslauriers at sdeslauriers@carollo.com or David Rothbart at drothbart@lacsd.org. Updates are provided as part of CASA's Air Quality, Climate Change, & Energy Workgroup monthly meetings and an Air Toxics Subgroup has been established that meets as needed.

[1] Scanning and sampling protocols will be developed in collaboration with and approved by local air districts and CARB staff. CASA will lead the coordination and development of the protocols.

Laboratory Committee – Report to BACWA Board

Laboratory committee meeting on: February 8, 2022
Executive Board Meeting Date: March 18, 2022
Committee Chair: Nicole Van Aken, Fairfield-Suisun Sewer District

Committee Request for Board Action: none

Regular meeting: 38 attendees via Zoom representing 26 agencies and the Regional Water Board.

Findings and Lessons Learned from TNI-2 Third-Party Assessment

Alexander Chieh (City of San José) shared detailed findings from the City's recent TNI-2 assessment report, completed by an ELAP approved third-party auditor. The City will soon be submitting the assessment report to obtain ELAP accreditation. Alexander shared the following observations about the assessment process:

- The City had recently completed a gap analysis, which made the third-party assessment fast and efficient (scheduled three days but only audited for two).
- At the beginning of the assessment, the team spent about half a day in a conference room discussing procedures, corrective actions, etc. The assessor reviewed all of the City's methods except one (chlorine DPD method).
- Instrument data packages were reviewed for completeness.
- The City felt that one of the findings on the initial assessment report was incorrect. They quickly contacted the assessor, who agreed to remove the disputed finding because it was not a method requirement.
- Although the assessor cannot give detailed guidance on corrective actions, the City was able to get preliminary feedback on proposed corrective actions (i.e., acceptable vs. not acceptable) before submitting the finalized corrective action plan.
- Staff training was a focus area for the assessor, and the City was able to share information about their various staff training initiatives such as internal audit training and manual integration training. The auditor pulled training records for a few of their staff members to make sure their records were available and within the required time frame. Alexander recommended that agencies familiarize themselves with the training materials provided by their assessors prior to the scheduled assessment. For example, the City used IAS, so it was useful to watch the training webinars offered by IAS to understand their assessment outlook.

File-Sharing for Policies and Procedures

The committee plans to establish a shared folder for policies and procedures to assist with the TNI accreditation process. The shared folder will be made accessible upon member request, and there will be some guidance offered for organization of files. Stay tuned for details.

Communication with ELAP About Timeline Guidance

Committee leadership has prepared a letter to send to ELAP to request additional guidance on procedures regarding proficiency testing (PT's). Members discussed their individual laboratory practices with respect to PT when there is a change in methods and agreed that additional written guidance from ELAP would be helpful. The draft letter was circulated for committee review and submitted to the BACWA Executive Board for review.

Members should also subscribe to the State Water Board's ELAP listserv here.

ELAP's Christopher Ryan provided guidance by email regarding PT when there are changes to FOA tables. Several members noted that reporting multiple methods could avoid issues with the transition but would require analyzing samples that were compatible to both methods. If one method had more stringent quality controls than the other, then it would take precedence. Other members analyze and report only one method according to their year of accreditation. Agencies are hoping ELAP can clarify best practice before the next PT cycle.

Other Updates

- SFEI is preparing the Sampling and Analysis Plan for Phase 2 of the PFAS Regional Study. It will be complete by March.
- March 1st is the currently anticipated effective date for the Chlorine blanket permit amendment.

- The Mercury/PCB watershed permit will be reissued in 2022 (October or November). A draft permit is anticipated in the late summer or fall. BACWA is collecting input on potential revisions.
- Implementation of the Statewide Toxicity Provisions is still 4-6 months away. In Region 2, the requirements will be rolled out permit-by-permit. Reissued permits will drop acute testing and specify use of the TST method for chronic toxicity tests.

Member discussions

- The use of batch sterilization tape along with monthly bioindicator to satisfy autoclave requirements.
- The calibration of IR devices by an ISO-certified vendor to satisfy requirements to verify inhouse working IR devices.

TNI Training and Implementation

- The 8th TNI training session with Diane Lawver is scheduled for Tuesday, February 15th, where the discussion topic will be records control. Recordings of previous sessions are available through the BACWA website (password required).
- On January 25, 2022, CVCWA and BACWA hosted a Sampling and Sample Receipt training session with Bill Ray (recording also available through the BACWA website)

Upcoming Events

The virtual ELAP conference is scheduled for May 31st to June 3rd. More information is here.

Next Regular Meeting : April 26, 2022, 10 AM – 12 PM via Zoom

Committee Request for Board Action: None

Regular meeting: 30 attendees via Zoom representing 19 member agencies.

Tentative Orders

The Regional Water Board has issued a tentative order NPDES permit for the City of Calistoga. The proposed requirements reflect that the City is a minor seasonal and intermittent discharger (e.g., no chronic toxicity monitoring is required). San Leandro's new NPDES permit for a shallow water outfall was adopted on 2/9/22.

Chlorine Blanket Permit Amendment

March 1, 2022, is still the anticipated effective date for the blanket permit amendment modifying chlorine effluent limits and removing oil & grease monitoring requirements. Dischargers should refer to their current NPDES permits for the minimum chlorine sampling frequency if/when continuous monitoring equipment is offline (e.g., once every hour, once every 2 hours).

Implementation of Statewide Toxicity Provisions

BACWA has assembled draft comments for the Regional Water Board on the December 2021 version of NPDES permit implementation language for the statewide toxicity provisions. Once finalized, the language will be added permit-by-permit upon reissuance of NPDES permits. The State Water Board has not yet submitted the provisions to OAL for review, so the effective date is at least 4-6 months away. Committee members discussed ambiguity in the proposed language regarding the information from chronic toxicity testing that would need to be submitted in tabular format, submitted via PDF upload, or retained in-house. A comment has been added regarding this issue. Members also requested development of a flow chart that includes surveillance monitoring.

Mercury and PCBs Watershed Permit

The Mercury and PCBs Watershed Permit will be reissued towards the end of 2022, which means the Regional Water Board will prepare the permit in late spring and summer. BACWA requests member input on the 2022 reissuance by Tuesday, 2/22. The committee discussed several questions related to PCBs, such as the status of EPA method 1668C being promulgated and the feasibility of reducing monitoring frequencies.

Nutrients Update

A. Science program update – The science team is working on completing a report on the Assessment Framework. The NMS science team has also produced draft "Executive Summary"-style materials regarding the science work, which will be finalized and distributed soon (February or March).

B. Group Annual Report – The 2021 Group Annual Report, completed on February, shows a decrease in TIN loading to San Francisco Bay for water year 2020/21. For the first time, the report also includes information about influent loading trends and recycled water deliveries.

C. 3rd watershed permit – Establishing appropriate science funding and establishing baseline conditions for antidegradation-based load limits are two of the main issues to be negotiated for the 3rd watershed permit. HDR is continuing to work on statistical analysis of historical loads through Sep. 2021 to characterize baseline conditions.

NPDES Permit Amendment for Monitoring Requirements

The effective date for the MRP Permit Amendment was January 1, 2022. Dischargers should use code "NODI-9" on DMR forms when sampling results are not available due to the permit amendment.

Other Announcements

- Development of the sampling and analysis plan for Phase 2 of the PFAS Regional Study is underway. In January, the State Water released a public review draft order for sanitary sewer systems (SSS-WDR) for a 60-day comment period. Workshops are scheduled for 2/23 and 2/24, and a Board workshop for 3/15. Comments are due April 8th.

Committee Leadership – For FY22-23, Jennie Pang (SFPUC) and Amanda Roa (Delta Diablo) have agreed to serve as chair and vice-chair, respectively.

Next BACWA Permits Committee Meeting: April 19, 2022, 12:30 PM via Zoom

Collection Systems Committee Report to BACWA Board	Collection Systems Committee Meeting: 2/10/2022 Executive Board Meeting Date: 3/18/2022 Committee Chairs: Andrew Damron (Napa San) and Tyree Jackson (Oakland)

Committee Request for Board Action: None

61 attendees, including representatives from at least 32 member agencies

EBMUD Wet Weather Consent Decree Implementation Update

Chris Dinsmore (EBMUD) explained how the District uses hydrologic and hydraulic modeling to evaluate its progress in complying with a Consent Decree to reduce I&I. Modeling allows an "apples to apples" comparison that is not possible with real storms, which vary dramatically in frequency and size. The model output allows the District to track performance over time for key metrics such as reductions in the amount of system-wide volume discharged compared to a baseline, or reductions in flows to the wet weather treatment facilities. So far, this approach is demonstrating that collection system rehabilitation has been effective in reducing modeled discharge volumes by roughly 20% compared to the FY11 baseline. During Q&A, it was noted that smoke testing with CCTV has been one of the most effective ways of identifying defects. Requiring private HOAs to complete replacement work has also been effective.

SSS WDR Update

The committee discussed the public draft Sanitary Sewer Order (SSS-WDR) released by the State Water Board on January 31 for a 60-day public comment period. BACWA is preparing a markup of the document, which will be distributed soon. Many of the requests that BACWA made on the February 2021 informal staff draft were granted. However, the public draft still requires a close review, so members should plan to informally provide their comments by March 1.

BACWA's Regulatory Program Manager shared a list of the top 5 draft comments so far (see slide deck). The ensuing member discussion touched on the following points:

- Grade 2 operator certification is not the right level to certify SSMPs
- Procuring and maintaining the surface water monitoring equipment required for DO, turbidity, etc., will be challenging. Collection system operators are not trained to do this sampling or to calibrate the equipment.
- Since the stated purpose of the new SSS-WDR is to improve enforceability, the State Water Board should consider issuing compliance and enforcement guidance.
- The draft requires agencies to estimate travel time and volume to receiving waters.
- Use of the phrases "surface waters of the state" and "waters of the US" requires review.

State Water Board staff will be hosting information sessions on February 23 and 24 (Register here) and the State Water Board will have a formal workshop to hear public comment on March 15th. Comments are due on Friday, April 8th.

Poll on Future Meeting Topics

Based on a poll during the meeting, members identified the top 3 future meeting topics as (1) Updating your SSMP under the new SSS-WDR; (2) Compliance and enforcement considerations for new SSS-WDR; (3) Identifying and managing exfiltration BMPs.

Next Collection System Committee Meeting	**BACWA Annual Meeting**
Thursday, May 12, 2022	Friday, May 6, 2022 at the David Brower Center in Berkeley

March 9, 2022

Attn: Tory Vizenor
Department of Pesticide Regulation (DPR)
Pest Management and Licensing
1001 I Street, 3rd Floor
Sacramento, CA 95812-4015

Subject: **BACWA Letter of Support for the City of Sunnyvale's Pesticide-Free Park**

Dear Tory Vizenor:

I am writing on behalf of the Bay Area Pollution Prevention Group (BAPPG) in support of the *Pesticide-free Sunnyvale: Live, Learn and Play the Less Toxic Way* project submitted to DPR for the 2022 Alliance Grants Programs by City of Sunnyvale. BAPPG is a committee of the Bay Area Clean Water Agencies (BACWA), a joint powers agency formed under the California Government Code by the five largest wastewater treatment agencies in the San Francisco Bay Area. Our members include the many municipalities and special districts that provide sanitary sewer services to more than 7.1 million people. BACWA is dedicated to working with our members, state and federal regulatory agencies, and non-governmental organizations to improve and enhance the San Francisco Bay environment.

BAPPG member agencies work together to coordinate pollution prevention activities and leverage resources for smaller agencies to reduce the level of toxic pollutants discharged into the San Francisco Bay and local waterways. Wastewater agency representatives meet bi-monthly to share information, leverage resources, and develop regional activities that help member agencies meet regulatory outreach requirements and BAPPG goals. As noted in the BAPPG 2021 Annual Report, BAPPG members have prioritized pesticides as a pollutant for education and outreach.

One way that BAPPG addresses pesticides is through support to Our Water Our World's robust education and outreach methods to reduce pesticide reliance in the region. BAPPG also works in partnership with the California Stormwater Quality Association on pesticide regulatory issues, recognizing that many pesticides reach waterways through both wastewater and urban stormwater pathways. The proposed project is aligned with our goals of protecting aquatic ecosystems and public health through community outreach. Through BAPPG, Sunnyvale has a built-in group for sharing the results of the project. By leveraging the efforts of BAPPG and the wider BACWA community, the project could influence widespread adoption of pesticide-free practices around the San Francisco Bay Area.

BAPPG understands that the City of Sunnyvale has an Integrated Pest Management (IPM) Policy that is already being implemented successfully on City properties. The Sunnyvale Sustainability Commission and the City Council have prioritized the need for further advancing IPM efforts to expand them to the community. The proposed project will assess pesticide-free maintenance practices at a well-visited park in Sunnyvale to determine their effectiveness, increase community awareness, and evaluate the impact to City operations. It will also establish a robust IPM

community engagement plan with strong partnerships, and expand the City's current IPM policy practices to inspire wider adoption in the community. The goal of the project is to expand the adoption of effective and proven IPM practices, which reduces risks to public health and the environment in urban settings.

BAPPG supports the efforts of City of Sunnyvale to explore pesticide-free park maintenance practices, expand community awareness and engagement, and serve as a model for wide-spread adoption of less-toxic pest control practices. Thank you for your thoughtful consideration of this proposal.

Sincerely,

Robert Wilson
BAPPG Co-Chair

Cc: BACWA Executive Board

Executive Director's Report to the Board

February 2022

EXECUTIVE BOARD MEETING AND SUPPORT

- Worked with BACWA staff to plan and manage 2/18 Executive Board meeting
- Conducted the Executive Board meeting agenda review with the BACWA Chair
- Updated preliminary program for 2022 Annual Meeting
- Reviewed contract for Annual meeting venue
- Discussed future structure of NMS with Board members
- Continued to track all action items to completion

COMMITTEES:

- Worked with RPM to plan, and attended Permits committee meeting 2/8
- Attended Collection Systems Committee meeting, 2/10
- Discussed committee budgets for FY23
- Discussed enhanced support for statewide issues by AIR consultant

REGULATORY:

- Met with CDA to discuss LIHWAP, 2/7
- Attended State Water Board CEC panel report-out, 2/10
- Met with State Water Board staff to discuss total fluorine analysis, 2/15
- Attended OPC meeting to adopt microplastic strategy and OAH update, 2/23
- Representated Statewide POTW community at the California Water Quality Monitoring Council meeting, 2/24
- Discussed development of Phase 2 PFAS SAP with SFEI staff
- Discussed Phase 2 PFAS SAP with BACWA participants, 2/22
- Discussed Phase 2 PFAS SAP with R2, 2/22
- Discussed Phase 2 PFAS SAP with SWB staff, 2/28
- Met with R2 to discuss reissuance of Hg/PCB WSP in 2022, 2/25
- Contacted BAAQMD to review draft agenda for Reg 2 workgroup kickoff

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
- Participated in and drafted meeting notes for NMS Planning Subcommittee meeting, 2/3
- Met with data steering committee to revise TIN baseline, 2/11
- Met with consultant to get more information about statistical approaches, 2/24
- Participated in NMS Assessment Framework meeting, 2/15
- Attended monthly NMS/NBS fundraising meeting, 2/16
- Reviewed draft State of the Science document
- Developed support letters for NMS fundraising efforts

FINANCE:

- Reviewed the monthly BACWA financial reports per EBMUD's new accounting system

- Worked with AED to develop update FY23 Budget based on finance committee recommendations
- Worked with AED to update format of budget to actual reports
- Worked with RPM on FY23 Nutrient Surcharge Calculations
- Reviewed and approved invoices
- Worked with AED to reformat Budget to Actual spreadsheet

COLLABORATIONS:

- Participated in planning and developed presentation for SFEI PFAS in Fish workshop, 2/4
- Attended meeting with Danish consular delegation to discuss WW issues, 2/14
- Met with CASA workgroup on PFAS data, 2/15
- Attended CASA CS Workgroup meeting 2/16
- Attended CASA RWG Water meeting 2/17
- Discussed lobbying status with CASA ED
- Collaborated with CASA on planning the POTW perspective for the California Water Quality Monitoring Council
- Participated in planning meeting for BAOWN conservation workshop, 2/25
- Worked with CASA CEF to launch Bruce Wolfe scholarship

ASC (AQUATIC SCIENCE CENTER)

- Reviewed materials sent via email by ASC ED

BABC (BAY AREA BIOSOLIDS COALITION)

- Reviewed revised draft White Paper on Biosolids application in the Baylands
- Attended and developed summary of meeting, 2/14

BACC (BAY AREA CHEMICAL CONSORTIUM)

- Reviewed bid documents

BACWWE (BAY AREA COALITION FOR WATER/WASTEWATER EDUCATION)

- Reviewed BACCWE email discussions

ADMINISTRATION:

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

MISCELLANEOUS MEETINGS/CALLS:

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

Board Calendar

April 2022 – June 2022 Meetings

DATE	AGENDA ITEMS
April 15, 2022	**Approvals & Authorizations:** • FY23 Contracts **Policy / Strategic Discussion:** • **Operational:** •FY23 budget approval
May 6, 2022	**Annual Meeting** **David Brower Center, Berkeley**
June 17, 2022	**Approvals & Authorizations:** • FY23 Contracts • New BACWA Chair and Vice Chair **Policy / Strategic Discussion:** • **Operational:**

BACWA ACTION ITEMS

Number	Subject	Task	Responsibiity	Deadline	Status
	Action Items from FEb 2022 BACWA Executive Board Meeting		**resp.**	**deadline**	**status**
2022.1.32	Funding for CASA	Executive Director to move forward with approval process for a contribution for this FY	ED	2/28/2022	complete
2022.2.33	2022 GAR Submittal	Resubmit report or appendix because EBDA average flow was incorrect.	ED \ RPM	3/15/2022	Complete
2022.2.34	BACWA recognition of Bisolids in the Baylands White Paper	BACWA ED to share updates with the group	ED	3/1/2022	complete
2022.2.35	Funding for CASA engagement on ACE, and lobbying status	BACWA ED to work with CASA and Sarah Deslauriers to implement option #2.	ED	3/11/2022	complete
2022.2.36	FY23 Draft Budget	Update FY23 draft budget with any suggestions received from the group.	ED	3/11/2022	complete
	Action Items Remaining from Previous BACWA Executive Board Meetings				
2022.11.23	Planning for meeting with BAAQMD leadership	Schedule a meeting with BAAQMD leadership to discuss longer-term issues such as BAAQMD staffing shortages.	ED \ RPM		complete
2022.12.28	Agency EJI initiatives - report to EPA	BACWA Executive Director will work with BACWA agencies to put together a meeting & presentation on EJI efforts.	ED		complete

FY22: 33 of 36 Action items are completed
FY21: 51 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

February 2022

BACWA BULLETIN: Completed and circulated February Bulletin.

NUTRIENTS: Participated in discussions with HDR regarding nutrient loading statistical analysis.

REGULATORY MATRIX: Finalized February 2022 version of Key Regulatory Issues Summary for review by Executive Director and committee leaders.

TOXICITY: Finalized BACWA comments on draft NPDES permit language prepared by Regional Water Board for implementation of new statewide toxicity provisions within Region 2, and transmitted to Regional Water Board staff.

SSS-WDR: Continued review of public draft SSS-WDR released on January 31. Prepared list of outcomes of previous comments, and new prioritized list of comments. Presented to Collection System Committee and Executive Board. Discussed potential comments with Regional Water Board staff, BACWA members, CASA, and others. Began preparation of draft BACWA comment letter.

COMMITTEE SUPPORT:

Asset Management – Assisted with coordination of February 2022 committee meeting; prepared notes.
BAPPG – Attended pesticides committee meeting; assisted with planning of March 2022 meeting.
Collection Systems – Provided SSS-WDR update at February 2022 committee meeting; prepared and distributed meeting notes.
Laboratory – Prepared for, attended, and prepared notes for February 2022 meeting; assisted with February TNI training session logistics; prepared draft letter to ELAP regarding proficiency testing requirements.
Permits – Prepared for, attended, and prepared notes for February 2022 meting; held planning discussion Regional Water Board regarding Hg/PCBs watershed permit.
Recycled Water – Assisted with development of budget request for FY23.
Executive Board – Attended Executive Board meeting and presented on SSS-WDR.

ADMINISTRATION/STAFF MEETING – Participated in monthly staff meeting.

BACWA MEETINGS ATTENDED:
AIR Committee (2/2)
BAPPG Pesticides Subcommittee (2/8)
Laboratory Committee (2/8)
Permits Committee (2/8)
Collection Systems Committee (2/10)
Lab Committee TNI Training (2/15)
Executive Board (2/18)

EXTERNAL EVENTS ATTENDED:
CASA SSS-WDR Planning Meetings (2/4, 2/7, 2/9)
CASA RWG Workgroup Meeting (2/17)
CASA ACE Workgroup (2/24)
State Water Board SSS-WDR Workshops (2/23, portion of 2/24)

Lorien Fono

From: Jared Voskuhl <JVoskuhl@casaweb.org>
Sent: Monday, March 7, 2022 5:31 PM
Subject: [Regulatory] CASA Regulatory Update - March 2022

Categories: Board Packet

Good Evening,

Please find below updates from February and for March. Our next Regulatory Workgroup meetings will be held on March 17, and the Honorable Nichole Morgan of the State Water Board will join us for a portion of the water committee meeting to share about her Board priorities in 2022 including the new utility arrearages program, septic to sewer extensions of service, infrastructure funding, and many other important matters. Please let us know if you have any problems accessing the linked resources.

Thank you,
The RWG Team

WATER

SWB Utility Arrearages Payment Program Application Period Open until 4/1/22
On March 1, the State Water Resources Control Board (State Water Board/SWB) began disbursing funds to wastewater utilities from the wastewater utility arrearages payment program (arrearages program), after opening the application portal on February 1. Previously, on January 19, the SWB adopted the arrearages program guidelines, on which CASA had submitted comments. The arrearages program is providing funding relief to wastewater agencies and wastewater billing entities for unpaid residential and commercial customer debt accrued during the COVID-19 pandemic for the period between March 4, 2020 and June 15, 2021. A two-page fact sheet is linked about the program's eligibility, and further information is available on the program's webpage. If you do not bill customers directly, please pass this information onto your billing entity. Technical assistance is available for anyone who needs support to complete their application, so if you have general or specific questions, do not hesitate to reach out to the program's staff at wwarrearages@waterboards.ca.gov.

SWB Holding SSS WDR Workshop on 3/15
On February 23 and 24, the SWB hosted two public workshops on the official draft of the re-issued sanitary sewer system waste discharge requirements (SSS WDR) which had been released on January 31. SWB staff's presentation is available here, the meeting recordings for day 1 and day 2, and there will be a State Water Board workshop on March 15, with formal

comments due on April 8, 2022 per the Notice. Previously in February 2021, the Board released an informal staff draft upon which we provided comments and met with SWB staff to discuss issues with implementation. CASA has held multiple internal meetings to review the new draft to discuss its impacts and to develop our formal remarks. If you're interested in being involved, reach out to Jared Voskuhl for updates and Cheryl Mackelvie, CASA's Executive Assistant, to be added to our Collection Systems Workgroup (CWG) Listserv. The CWG will be meeting next on 3/9 and 3/16 from 1-2:30 PM both days.

SWB Water Quality and ELAP Fees Workshops on 3/8 and 3/9

On March 8 and March 9, the State Water Board will host the first of four workshops this year on water quality fees and ELAP fees, respectively. Currently a 0.1% and 2.3% increase are proposed by the SWB for WDR and NPDES fee payers, however, SWB staff are also proposing an additional 5% increase to maintain a fund reserve, so cumulatively, 5.1% and 7.3% increases. For ELAP, the current SWB proposal is a 4.2% increase. After the May Revise budget is issued, State Water Board staff will host a workshop in June to discuss how these figures are revised. Please reach out to Jared Voskuhl with comments or questions.

SWB to Adopt CWSRF 2021-22 IUP Amendments on 3/15

On March 15, the State Water Board is scheduled to adopt the amendments to the previously adopted 2021-22 intended use plan (IUP) in order to administer the legislature's $650 million wastewater infrastructure allocations from the 2021 state budget. The State Water Board will prioritize the wastewater infrastructure funding for septic to sewer projects, as shown in this SWB infrastructure funding fact sheet. The SWB held a workshop on January 20, and comments were due on February 7. The SWB's response to comments is available here, and we expect the 2022-23 IUP will be released in April. Please contact Jared Voskuhl if you have questions.

Participate in CASA's Annual Salary Survey by 3/31

Every year or two, CASA conducts a benefits survey of our members with the gracious voluntary assistance of Monterey One Water to coordinate and produce the survey report. In today's competitive talent landscape, salary benchmarking is an important HR tool, and this survey report is a member benefit. If your agency participated previously, your data is important for those agencies that use benchmarks. For those of you who have not participated in recent surveys, or have never participated, you will find this information very helpful when conducting a salary classification and review. We encourage all CASA agencies to participate in this year's call for benefits and salary information by completing this 2022 Benefits Survey. The more responses we receive, the more accurate the statistical summary we can create. If your department would not typically have this information, please send this notification to your HR department for them to complete the Survey. Part 1 contains only benefit information, and Part 2 is the salary information. Please take the time to answer each question to the best of your ability. We can exclude listing salary data for any sensitive positions that you prefer not to be recorded on the report. However, we would still like to use that information in the calculations of the overall averages. To accomplish this, just make a notation on the survey. We look forward to providing as much comprehensive, beneficial information as possible with the distribution of the results. If you have any questions about the survey, reach out to Debbie Welch, CASA's Manager of Association Services.

OPC Adopts Statewide Microplastic Strategy on 2/23

On February 23, the Ocean Protection Council (OPC) adopted its Statewide Microplastics Strategy (Strategy). On January 21, CASA had submitted comments on the draft Strategy to the Ocean Protection Council (OPC), which had been released on December 21, 2021. The Strategy was updated to reflect several remarks, and we will continue to work with the OPC this spring on their study of treatment removal effectiveness. If you have questions or feedback, please contact Jared Voskuhl.

CFGC Continues 2/17 Hearing on Southern California Steelhead Petition to April

On February 17, the California Fish and Game Commission (Commission) held a hearing on the petition to list the Southern California steelhead under the California Endangered Species Act. The Commission continued the hearing to April to make a determination on the petition in order to allow for stakeholder engagement on the § 2084 take authorizations. DFW's review of the petition is here, and CASA's February 3 comments are here. Please reach out to Jared Voskuhl with questions.

CVCWA Submits Comments on the SWB's Copper & Zinc Site Specific WQOs

On March 7, the Central Valley Clean Water Association submitted comments on the State Water Board's CEQA Scoping Meeting for the proposed water quality control policy supporting the development of site-specific water quality objectives for copper and zinc. This proposal features the use of the biotic ligand model (BLM) in lieu of Water Effect Ratios (WER), and while stormwater community and MS4 permittees are more directly affected by the proposal and supportive of it, NPDES permittees may be impacted for those with basin plans which have adopted WER-based site-specific water quality objectives. Please reach out with your input or questions, and if you are tracking this proceeding, keep us updated with issue and concerns that emerge.

California Water Action Plan 2023 Update

On March 2, the Department of Water Resources hosted its kickoff Policy Advisory Committee (PAC) meeting to develop and update the California Water Plan (Plan). First introduced in 1957, the Plan is the state's strategic map for sustainably managing and developing water resources for current and future generations. It is updated every five years, and the next update is due in 2023. During the March 2 meeting, staff provided an overview of the Plan Update, the role and charge of the PAC, and presentations on the three main themes of the 2023 Plan update: watershed resilience, climate change, and equity. Numerous comments and questions were provided by stakeholders, and DWR plans to release the initial administrative draft in the fall of 2022, with a public draft released early in 2023. The meeting agenda is here, and CASA's Jared Voskuhl is serving on the PAC, so please reach out to him with questions or feedback.

Report out from Toxicity Provisions Cerio Study SAC Meeting on 2/23

On February 23, the Stakeholder Advisory Committee (SAC) for the SWB's study of variability in test results for aquatic toxicity using ceriodaphnia dubia held their first meeting of 2022. Per the agenda, they discussed the historical analyses that the Southern California Coastal Water Research Project (SCCWRP) performed during their first phase of this project in 2021, as well as the Expert Science Panel's interpretation of those results, insofar as to how it may guide further research for new testing. Meeting minutes are here, and the Expert Science Panel will meet this month to discuss the sampling plan that SCCWRP's developing and potential scientific inquiries to pursue. All of the meeting materials for this project are availed here. CASA is actively monitoring these convenings, so please reach out to Jared Voskuhl with questions.

CEC's in Aquatic Systems Science Advisory Panel Meeting
On February 10, the SWB and OPC reconvened the Constituents of Emerging Concern (CEC's) Science Advisory Panel for Aquatic Ecosystems (CEC's SAP), which is funded by a grant to SCCWRP. The CEC's SAP are assessing the current state of scientific knowledge on the risks of CEC's impacting human health and the environment in freshwater, coastal, and marine ecosystems of the State and will update their 2012 recommendations. The CEC's SAP are resuming their efforts over this year, and SWB shared during the meeting that they are building their program with dedicated staff. A few slides are linked on the SWB's CEC's database characteristics, their CEC's evaluation considerations, and next steps for the CEC's SAP. The program's page is here and is where resources from this initiative will be archived. If you have questions, contact Jared Voskuhl.

SWB 2021 Volumetric Annual Reports due 4/30/22
On January 10, the State Water Board opened the Geotracker portal for the 2021 volumetric annual report (VAR). Wastewater and recycled water permittees are required to submit their 2021 VAR report module in GeoTracker by April 30, 2022. For background, the SWB's Water Quality Control Policy for Recycled Water requires wastewater and recycled water permittees (including wastewater permittees that do not produce any recycled water) to annually report monthly volumes of influent, wastewater produced, and effluent, including treatment level and discharge type. The 2021 VAR is the same format as the previous year and requires the entry of volumes in acre-feet per month for influent, effluent, and if applicable, recycled water use. Volumetric conversion factors can be found in the SWB's Help Guide. Additional information, including the Help Guide and Webinar training for submitting the VAR, and data and infographics from 2019 and 2020 can be found on the VAR webpage. For assistance with submitting the 2021 VAR or any questions regarding this message, please email SWB staff.

SWB Agenda Roundup
Here are the recent State Water Board agendas for their meetings on February 1 (Delta), February 15 (TUP), March 1 (ELAP, 2022 drinking water priorities and MCls), and March 15 (SSS WDR, CWSRF IUP, wastewater arrearages program). The Executive Director reports are available for January (wastewater arrearages program, site specific WQOs for copper and zinc) and February (wastewater arrearages program, Volumetric Annual Reports, CEC's in Aquatic Ecosystems Science Advisory Panel), which feature a link to a recently updated statewide and regional policies calendar.

BIOSOLIDS

CASA & CWEA Co-Hosting "Partnering for Impact in 2022" on 4/11 in Sacramento
On April 11, CWEA and CASA will co-host this one-day, in-person event bringing together wastewater leaders, project managers, researchers, manufacturers, and plant operators to work together on accelerating innovation within the clean water sector. The panels will tee-up cutting-edge ideas and challenges: Addressing PFAS and nutrient water quality objectives, Reducing organic waste disposal at landfills 75% below 2014 levels by 2025, and Reducing

carbon emissions to 80 percent below 1990 levels by 2050. The event brochure is here, and you may register for it here. If you have questions about this event, please contact Dave Jones.

UC Merced Presentation on Carbon Sequestration & Long Term Biosolids Application
On March 4, Dr. Yocelyn Villa presented on her work with Dr. Rebecca Ryals quantifying carbon sequestration from long term biosolids application, as part of the W4170 multistate workgroup. If you were able to attend and have questions or unable to but are interested in the presentations, please reach out to Greg Kester.

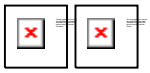
National PFAS Biosolids Research Proposal Presentation
On February 3, Dr. Ian Pepper (U of Arizona) presented on the proposed national PFAS research project for land applied biosolids. The recording and slides are now available for those who were unable to attend but are interested. Should you be willing to contribute to the study, please notify Greg Kester, Dr. Pepper, and Ned Beecher. Once sufficient pledges are received, invoices will be sent from the University of Arizona. Thank you again for your interest and support, and contact Greg Kester is you have additional questions.

Recent NW Biosolids Research Library (microplastics, COVID-19)
Please find the January summary and abstracts , as well as February's profile from this winter's biosolids research libraries by Dr. Sally Brown (UW) and NW Biosolids. The January entries are focused on microplastics and the February one on COVID-19 and WBE. Let Greg Kester know if you would like any of the complete articles.

CALENDAR

March 8	SWB WQ Fees Workshop
March 9	SWB ELAP Fees Workshop
March 15	SWB Meeting (CWSRF IUP, Arrearages Update)
March 15	SWB SSS WDR Workshop

March 16	CASA Collection Systems Workgroup
March 17	CASA Regulatory Workgroup
March 24	CASA Air Quality, Climate Change, and Energy Workgroup
April 01	SWB Wastewater Arrearages Program Application Deadline
April 05	SWB Meeting (PFAS Investigation Update)
April 08	SWB SSS WDR Comment Deadline
April 11	Partnering for Impact (Sacramento)
April 11-14	CWEA Annual Conference 2022



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