Executive Board Meeting
AGENDA
Friday, August 18, 2023 9:00 AM - 12:00 PM (PDT)
EBMUD Orinda Watershed Headquarters
500 San Pablo Dam Rd, Orinda CA, 94563

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

	Agenda Item		Time	Pages
1	**CLOSED SESSION** to discuss personnel matters pursuant to California Government Code Section 54957		**9:00-9:30 AM**	
	ROLL CALL, INTRODUCTIONS, AND HYBRID MEETING ETIQUETTE		**9:30 AM**	
	PUBLIC COMMENT	Guidelines	**9:35 AM**	
	CONSIDERATION TO TAKE AGENDA ITEMS OUT OF ORDER		**9:40 AM**	
	CONSENT CALENDAR		**9:45 AM**	
2	July 21, 2023 BACWA Executive Board meeting minutes			**3-7**
3	July 21, 2023 BACWA NST Special Executive Board meeting minutes			**8-9**
4	June 2023 Treasurer's Report			**10-18**
	APPROVALS AND AUTHORIZATIONS		**9:55 AM**	
5	Approval: FY24 1st Installment NMS Payment $1.0M			**19-20**
6	Authorization: Rich Cunningham			**21-23**
	OPERATIONAL		**10:05 AM**	
7	Discussion: FY23 Closeout summary			
8	Discussion: Logistics and invitations for Pardee Technical Seminar Sept 8-9, 2023			
9	Discussion: Draft Pardee Program			**24-25**
10	Discussion: Updated BACWA Representation for RMP TRC and IRWMP CC			
11	Informational: BACC Update - Annual meeting August 22			**26**
	POLICY/STRATEGIC		**11:00 AM**	
12	Discussion: 2024 Algal Bloom and media engagement	Algal Bloom in the media links		
13	Discussion: Nutrient special studies next steps			**27**
14	Discussion: SSS WDR support RFQ			**28-32**
15	Informational: Letter to ELAP on proposed fee regulations			**33-35**
16	Discussion: WQIF support letters and infoshare			**36-37**
17	Informational: Risk reduction debrief to Water Board, 8/15	Risk reduction page		**38-54**
18	Informational: Draft agenda for Recycled Water Interagency Workshop Sept 20	Registration link		**55-58**
19	Informational: Chlorine Residual Blanket Permit Amendment - Tentative Order			**59**
			11:50 PM	
20	Committee Reports			**60-62**
21	Member highlights			
22	Executive Director Report			**63-64**
23	Board Calendar and Action Items			**65-72**
24	Regulatory Program Manager Report			**73**
25	Other BACWA Representative Reports			
	a. RMP Technical Review 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; Amit Mutsuddy; Lori Schectel		
	e. Nutrient Governance Steering Committee	Eric Dunlavey; alternates: Lori Schectel		
	e.i Nutrient Planning Subgroup	Eric Dunlavey		
	f. SWRCB Nutrient SAG	Lorien Fono		
	h. BAIRWMP	Cheryl Munoz; Florence Wedington; *Lorien Fono*		
	i. NACWA Emerging Contaminants	Karin North; Melody LaBella		
	j. CASA State Legislative Committee	Lori Schectel		
	k. CASA Regulatory Workgroup	Lorien Fono; Mary Cousins		
	l. RMP Microplastics Liaison	Artem Dyachenko		
	m. Bay Area Regional Reliability Project	Jackie Zipkin		

n. WateReuse Working Group	Cheryl Munoz		
o. San Francisco Estuary Partnership	Lorien Fono; Jackie Zipkin		
p. CPSC Policy Education Advisory Committee	Colleen Henry		
q. California Ocean Protection Council	Lorien Fono		
r. Countywide Water Reuse Master Plan	Karin North, Pedro Hernandez		
s. CHARG - Coastal Hazards Adaptation Resiliency Group	Jackie Zipkin		
t. California Water Quality Monitoring Council	Lorien Fono		
26 **SUGGESTIONS FOR FUTURE AGENDA ITEMS**		**11:59 PM**	
NEXT MEETING			
The next meeting of the Board is scheduled for October 20, 2023			
ADJOURNMENT		**12:00 PM**	

Executive Board Meeting Minutes

Friday July 21, 2023

ROLL CALL AND INTRODUCTIONS

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

Other Attendees and Guests:

Name	Agency/Company
Amanda Roa	Delta Diablo
David Donovan	City of Hayward
Jennifer Dyment	BACWA
Jennifer Voccola-Brown	City of San Jose
Jennie Pang	SFPUC
Lorien Fono	BACWA
Meg Herston	FSSD
Mike Falk	HDR
Talyon Sortor	FSSD
Tom Hall	EOA
Sarah Scheidt	SFO
Violetta Muselli	Civic Edge

Jackie started the meeting at 9:06

Agenda Item

ROLL CALL, INTRODUCTIONS, AND TELECONFERENCE ETIQUETTE

PUBLIC COMMENT - None

CONSIDERATION TO TAKE AGENDA ITEMS OUT OF ORDER BACWA Executive Director put forth an AB 2449 approval to allow Board member Lori Schectel to participate remotely today due to an emergency. A motion to approve was made by Eric Dunlavey (East Bay Municipal Utility District) and seconded by Amy Chastain (San Francisco Public Utilities Commission). The motion was approved unanimously.

CONSENT CALENDAR

1 June 16, 2023 BACWA Executive Board meeting minutes

2 June 16, 2023 BACWA NST Special Executive Board meeting minutes

3 June 27, 2023 Joint meeting with R2 Special Executive Board meeting minutes

4 May 2023 Treasurer's Report

Consent Calendar items 1 thru 4: A motion to approve was made by Amy Chastain (San Francisco Public Utilities Commission) and seconded by Eric Dunlavey (East Bay Municipal Utility District). The motion was approved unanimously.

APPROVALS AND AUTHORIZATIONS

5 Authorization: EDAR for WEF scholarship endowment in honor of David Jenkins - BACWA Executive Director explained that WEF requested a $5000 donation to endow a scholarship for David Jenkins, as discussed at the 7/21 BACWA Executive Board meeting. At that meeting, the Board was supportive of providing a small donation. The ED contacted BACWWE leadership, and each entity donated $2500. The ED used her authority to approve the payment. No motion was necessary.

POLICY/STRATEGIC

6 Presentation: Communications plan update from Civic Edge - BACWA ED introduced Violetta Muselli from Civic Edge. Violetta presented slides summarizing the project goals, key takeaways, and opportunities for BACWA. BACWA ED requested that people review & edit the initial messaging document. The next step is development of a communication plan by late July.

7 Discussion: SSS WDR next steps - BACWA ED shared slides on the SSS WDR Assistance Next Steps. Collection Systems requested funds to hire a consultant to prepare SSMP guidance for members. Currently they are working on a SOW with input from Collection Systems & Clean Water Summit partners.

8 Informational: Proposed NPDES Basin Plan Amendment - BACWA ED shared slides on proposed basin plan amendment to address NPDES permitting.

9 Informational: BACWA matching support for WQIF PFAS proposal by SFEI - BACWA ED shared that SFEI was pursuing water quality improvement funds from EPA to study PFAS in stormwater, as well as sources to the environment. SFEI wanted to know if BACWA wants to participate with matching support The group discussed the Wastewater Project Budget Summary slide and options and the group agreed that they are interested in participating with in kind and cash services.

Action item: BACWA ED will bring more WQIF PFAS proposal information to meeting in August.

10 Discussion: Final NBS and RW evaluations - BACWA ED shared there was a link to final document in the packet. BACWA ED shared updates on the nature based solutions report and final steps. Mike Falk discussed recycled waters next steps.

11 Discussion: Updated SOW for Special Study synthesis - Mike Falk (HDR) gave an update on a proposed SOW based on work already done with HDR's economists and statisticians to provide a fair analysis of costs of recycled water versus other nutrient removal methods. The SOW should be developed within a few weeks and will be brought to the Board for approval. The group discussed the recycled water project and next steps.

12 Informational: June 13 2023 NMS Planning Subcommittee minutes - BACWA ED shared that the minutes were in the packet.

13 Informational: TS/SFEP Social & Racial Equity Workshop report-out and webpage - BACWA ED shared that the meeting was well attended. The workshop summary and a list of resources is available on the BACWA JEDI webpage.

14 Informational: Risk reduction debrief to Water Board, 8/15 - BACWA ED shared that CIEA and APAFSS will present at a 8/15 meeting to provide the Water Board with an update on BACWA's risk reduction activities. BACWA agencies are welcome to join via zoom.

15 Informational: June 12 BAAQMD Reg 2 Workgroup meeting Summary - BACWA ED shared the document is in the packet. Document will be included in a future BAAQMD board meeting packet.

16 Informational: Chlorine Residual Blanket Permit Amendment - BACWA ED shared a slide that summarized the draft blanket permit amendment that included feedback from USEPA. BACWA will send a cover letter with comments but most important point is that it passes with USEPA.

5 MIN BREAK

OPERATIONAL

17 Discussion: Contract overrun for SSS WDR support - BACWA ED explained the situation, there was a $3,700 overrun with the SSS WDR support contract. The group discussed the situation and agreed to pay the overrun one time, and to not do this again in the future.

Action Item: BACWA ED to prepare an amendment to authorize the additional funds.

18 Discussion: Logistics and invitations for Pardee Technical Seminar Sept 8-9, 2023
- BACWA ED shared that 22-23 people can spend the night. BACWA ED shared the spreadsheet of people who will be staying over at Pardee and asked if any associate agencies wanted attend to reach out to her. She will also issue targeted invitations to make sure there is representation from members.

19 Discussion: Draft Pardee Program - BACWA ED shared a draft program, and the group discussed the plans.

Action item: Final Pardee program will be shared at the August BACWA Board Meeting.

20 Informational: Meeting Locations for Calendar Year 2023 - BACWA ED shared that there is an updated BACWA Board Meeting location document in the packet. The October meeting will be at Central Contra Costa Sanitary District, instead of SFPUC.

21 Informational: ED Performance Plan for FY24 - BACWA ED shared that the draft is in the packet and the BACWA ED will be at the beginning of the August BACWA Executive Board meeting.

22 Informational: BACC Update - Annual meeting August 22 - BACWA ED and AED summarized the FY2024-25 bid schedule. BACC Annual Meeting agenda will be shared at the August BACWA Executive Board meeting.

Action item: BACWA ED and AED to create agenda for BACC meeting and share at August Board meeting.

23 **Committee Reports** - BACWA ED referred to the packet.

24 **Member highlights** - BACWA Attendees shared member highlights.

25 **Executive Director Report** - BACWA ED shared it is in the packet.

26 **Board Calendar and Action Items** - BACWA ED shared it is in the packet.

27 **Regulatory Program Manager Report** - BACWA ED shared it is in the packet.

28 **Other BACWA Representative Reports**

There was a discussion that a new BACWA TRC representative is needed as Mary Lou and Yun are both stepping down. Samantha Engelage (Palo Alto) will fill one of the vacancies.

a. RMP Technical Review 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; Amit Mutsuddy; Lori Schectel

e. Nutrient Governance Steering Committee Eric Dunlavey; alternates: Lori Schectel

e.i Nutrient Planning Subgroup Eric Dunlavey

f. SWRCB Nutrient SAG Lorien Fono

h. BAIRWMP Cheryl Munoz; Florence Wedington; Lorien Fono

i. NACWA Emerging Contaminants Karin North; Melody LaBella

j. CASA State Legislative Committee Lori Schectel

k. CASA Regulatory Workgroup Lorien Fono; Mary Cousins

l. RMP Microplastics Liaison Artem Dyachenko

m. Bay Area Regional Reliability Project Jackie Zipkin

n. WateReuse Working Group Cheryl Munoz

o. San Francisco Estuary Partnership Lorien Fono; Jackie Zipkin

p. CPSC Policy Education Advisory Committee Colleen Henry

q. California Ocean Protection Council Lorien Fono

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

s. CHARG - Coastal Hazards Adaptation Resiliency Group Jackie Zipkin

t. California Water Quality Monitoring Council Lorien Fono

29 SUGGESTIONS FOR FUTURE AGENDA ITEMS

NEXT MEETING The next meeting of the Board is scheduled for August 17, 2023

Jackie adjourned the meeting at 11:21

Nutrient Strategy Team
July 21, 2023 Meeting Summary

ATTENDEES:

Executive Board Representatives: Lori Schectel (Central Contra Costa Sanitary District); Alicia Chakrabarti (EBMUD), Eric Dunlavey (San José); Jacqueline Zipkin (East Bay Dischargers Authority); Amy Chastain (San Francisco Public Utilities Commission)

Other Attendees:

Name	Agency/Company
Lorien Fono, Mary Cousins	BACWA
Andre Gharagozian	Carollo
Dan Frost	CCCSD
David Senn	SFEI
Amanda Roa	Delta Diablo
Don Gray	EBMUD
Tom Hall	EOA
Talyon Sortor, Meg Herston	FSSD
David Donovan	Hayward
Mike Falk	HDR
Mike Connor	
Brett Ferguson	Hazen and Sawyer
Armando Lopez	USD
Jennie Pang	SFPUC
Melody Tovar	Sunnyvale
Jennifer Harrington	Vallejo FWD

Jackie Zipkin called the meeting to order at 12:31 pm and led introductions. The meeting was conducted in hybrid format, with participants joining virtually and in-person at SFPUC's San Francisco offices. There was no public comment.

MODELLING UPDATE

The NMS Science manager David Senn attended the meeting and updated the group on modeling efforts and timing. He compared observational DIN data from 2021 and 2022 to illustrate that there are important in-bay processes that control ambient DIN conditions. The team's goal is to use the model to better understand the difference. The BACWA technical team is proposing testing scenarios to better understand the limitations of the model.

There was a discussion about potentially using lines of evidence other than the model to support load reductions, such as technology based limitations. There was also a discussion about establishing a new reduction threshold that could be used as a baseline for trading, but wouldn't be an enforceable agency limit. The threshold could be based on reductions from influent loads, or calculated from target concentrations.

DEBRIEF FROM MEETING WITH R2 STAFF, AND BACWA RESPONSE

Interim Effluent Limitations. The Water Board expressed discomfort at the idea of using the planning level targets established in WSP2.0 as interim limits since they incorporate a 15% buffer. They may be open to using the upper tolerance levels recommended by the HDR team.

Final Effluent Limitations. The Water Board and BACWA discussed whether final limits needed to include allocations for individual agencies. BACWA's position is that individual final limits are premature for the following reasons:

- Numbers in permits become planning targets for agencies, and this baking in makes it harder for them to adjust when future permits require further reductions
- We don't yet have the science to determine if load reductions in some areas are more valuable than in others.
- Imposing individual limits is not necessary for establishing a trading program. The permit could establish a new "future baseline" against which credits could be measured.
- Allocations should be developed in a deliverable by BACWA during WSP3 using developing science and based on agencies real planning efforts.
- We're delivering information about projects that should satisfy stakeholders that loading will be reduced. If we have individual limits, why bother with that effort?

Project Information for Fact Sheet. BACWA staff will check back in with members to update their project planning descriptions. We will characterize projects using their level of certainty.

NEXT STEPS

- Develop materials to describe the status of negotiations to members
- Prepare for engagement with Water Board at Pardee Technical Seminar
- Send out calendar invite for 9/15 NST meeting

The meeting was adjourned at 2:36 PM.

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

July 25, 2023

MEMO TO: Bay Area Clean Water Agencies Executive Board

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

SUBJECT: Twelfth Month FY 2023 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, 2022 through June 30, 2023** (Twelve months of Fiscal Year 2023). 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),
- BACC Legal Reserve Fund (BACC Legal Rsrv),
- Water/Wastewater Operator Training (WOT),

Houck, Matt

From: Feldman, Samuel
Sent: Wednesday, July 26, 2023 4:16 PM
To: Houck, Matt
Cc: Grow, Phoebe
Subject: RE: June 2023 Treasurer's Report

Thanks Matt! Approved. Great working with you on this. I told Phoebe to always just trust Matt. 😊

Sam Feldman (he/him/his)
Manager of Budget
(510) 287-0441

From: Houck, Matt <matt.houck@ebmud.com>
Sent: Wednesday, July 26, 2023 10:43 AM
To: Feldman, Samuel <samuel.feldman@ebmud.com>
Cc: Grow, Phoebe <phoebe.grow@ebmud.com>
Subject: June 2023 Treasurer's Report

Hi Sam,

This should be the last TR you approve for BACWA! Thank you for your help.

Please approve BACWA – June 2023 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 FY23 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 resources for BACWA staff, its committees, and other administrative needs. The ending fund balance on June 30,2023, was $347,671 which is higher than the target reserve of $229,098 which is intended to cover 3 months of normal operating expenses based on the BACWA FY22 budget. $33,284 of the ending fund balance is shown on the BACWA Fund & Investments Balance Report June 30,2023, 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 an actual unencumbered reserve of $85,298 (i.e., actual fund balance of $314,387 less target reserves) as of June 30,2023.

CBC Fund: This fund provides the resources for completing special investigations as well as meeting regulatory requirements. The ending fund balance on June 30,2023, was $2,097,905 which is higher than the target reserve of $1,000,000. $378,676 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 $719,229 (i.e., actual fund balance of $1,719,229 less target reserves) as of June 30,2023. 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 June 30,2023 (100% of the FY) are at 100%

Expenses as of June 30,2023 (100% of the FY) are at 86%

FY 2023
BACWA BUDGET to ACTUAL

BACWA BAY AREA CLEAN WATER AGENCIES

BACWA FY23 BUDGET	Line Item Description	FY 2023 Budget	Actual June 2023	Actual % of Budget June 2023	Variance	YEAR END NOTES
REVENUES & FUNDING						
Dues	Principals' Contributions	$527,250	$527,250	100%	$0	
	Associate & Affiliate Contributions	$187,793	$186,845	99%	-$948	
Fees	Clean Bay Collaborative	$675,000	$674,250	100%	-$750	
	Nutrient Surcharge	$1,400,000	$1,399,980	100%	-$20	
	Voluntary Nutrient Contributions		$0	0%	$0	
Other Receipts	AIR Non-Member	$7,217	$7,217	100%	$0	
	BAPPG Non-Members	$4,033	$4,032	100%	-$1	
	Other		$18,489		$18,489	Reimbursement for four party funds and BAWSCA RW contribution
Fund Transfer	Special Program Admin Fees (WOT)	$5,202	$1,000	19%	-$4,202	BACWWE scholarship disbursement was limited this FY, so we billed less
	Special Program Admin Fees (BACC)	$36,000	$36,000	100%	$0	Paid by BACC Agencies
	Special Program Admin Fees (BABC)	$6,000	$6,822	114%	$822	
Interest Income	LAIF	$4,000	$39,594	990%	$35,594	LAIF - higher rates than anticipated
	Higher Yield Investments					
	Total Revenue	**$2,852,495**	**$2,901,479**	**101.72%**	**$48,984**	

BACWA FY23 BUDGET	Line Item Description	FY 2023 Budget	Actual June 2023	Actual % of Budget June 2023	Variance	NOTES
EXPENSES						
Labor						
	Executive Director	$204,250	$204,250	100%	$0	
	Assistant Executive Director	$86,004	$85,934	100%	-$70	
	BACC Administrator	$36,000	$36,000	100%	$0	Paid by BACC Agencies
	Regulatory Program Manager	$142,223	$138,386	97%	-$3,837	
	Total	**$468,477**	**$464,569**	**99%**	**-$3,908**	
Administration						
	EBMUD Financial Services	$43,297	$37,507	87%	-$5,790	Lower than anticipated financial services
	Auditing Services	$5,452	$5,452	100%	$0	
	Administrative Expenses	$8,118	$2,108	26%	-$6,010	Lower than anticipated administrative expenses
	Insurance	$8,132	$7,571	93%	-$561	Reflects actual cost of insurance in FY23
	Total	**$64,999**	**$52,638**	**81%**	**-$12,361**	
Meetings						
	EB Meetings	$2,706	$1,325	49%	-$1,381	
	Annual Meeting	$14,369	$10,561	73%	-$3,808	Annual meeting venue was less expensive
	Pardee	$6,668	$3,432	51%	-$3,236	Pardee meeting venue was local and there was no cost to rent
	Misc. Meetings	$5,412	$7,440	137%	$2,027	Increase due to in person meetings
	Total	**$29,155**	**$22,758**	**78%**	**-$6,397**	
Communication						
	Website Hosting	$714	$189	27%	-$525	
	File Storage	$780	$720	92%	-$60	

FY 2023
BACWA BUDGET to ACTUAL

EXPENSES						
	Website Development/Maintenance	$1,561	$1,300	83%	-$261	
	IT Support	$2,705	$0	0%	-$2,705	No IT support needed
	Other Commun	$1,821	$1,372	75%	-$449	
	Total	**$7,581**	**$3,581**	**47%**	**-$4,000**	
Legal						
	Regulatory Support	$2,871	$320	11%	-$2,551	
	Executive Board Support	$2,309	$0	0%	-$2,309	No support needed in FY23
	Total	**$5,181**	**$320**	**6%**	**-$4,861**	
Committees						
	AIR	$96,000	$95,020		-$980	
	BAPPG	$130,600	$119,087	91%	-$11,513	
	Biosolids Committee	$0	$0		$0	
	Collections System	$1,000	$0	0%	-$1,000	
	InfoShare Groups	$1,000	$492	49%	-$508	
	Laboratory Committee	$6,400	$4,436	69%	-$1,964	
	Permits Committee	$1,000	$80	8%	-$920	
	Pretreatment	$1,000	$12	1%	-$988	
	Recycled Water Committee	$20,000	$8,999	45%	-$11,001	
	Misc Committee Support	$45,000	$14,130	31%	-$30,870	
	Manager's Roundtable	$1,000	$0	0%	-$1,000	
	Total	**$303,000**	**$242,256**	**80%**	**-$60,744**	
Collaboratives						
	Collaboratives					
	State of the Estuary (SFEP-biennial)	$20,000	$20,000	100%	$0	
	Arleen Navarret Award	$2,500	$2,500	100%	$0	
	BayCAN	$5,000	$1,500	30%	-$3,500	Reduction in dues
	Bay Area One Water Network	$5,000	$5,000	100%		
	Bruce Wolf Scholarship	$4,000	$4,000	100%		
	Misc	$1,500	$2,500	167%	$1,000	
	Total	**$38,000**	**$35,500**	**93%**	**-$2,500**	
Other						
	Unbudgeted Items					
	Other	$0	$0	0%	$0	
		$0	**$0**	**0%**	**$0**	
Tech Support						
	Technical Support					
	Nutrients					
	Watershed	$1,800,000	$1,800,000	100%	$0	
	NMS Voluntary Contributions	$0	$0	0%	$0	
	Additional work under permit	$100,000	$83,040	83%	-$16,960	Includes HDR PO for $225k spread out over FY20-24.
	Regional Study on Nature based systems	$248,811	$78,768	32%	-$170,043	Work to continue into FY24
	Regional Recycling Evaluation	$63,525	$6,500	10%	-$57,025	Invoicing in FY24
	Nutrient Workshop(s)	$0	$0	0%	$0	
	NMS Reviewer	$50,000	$8,480	17%	-$41,520	As needed contract not spent out
	General Tech Support	$100,000	$11,346	11%	-$88,654	AB617 emissions factors, PFAS, other nutrient support
	CEC Investigations	$140,000	$137,380	98%	-$2,620	
	Risk Reduction	$12,500	$0	0%	-$12,500	APA FSS completed $12,500 contract in FY20, CIEA contract amended with extension to FY24
	Total	**$2,514,836**	**$2,125,514**	**85%**	**-$389,322**	

FY 2023
BACWA BUDGET to ACTUAL

EXPENSES						
	TOTAL EXPENSES	**$3,431,228**	**$2,947,136**	**85.89%**	**-$484,092**	
	PROJECTED EXPENSE DEVIATION FROM BUDGET					
	NET INCOME BEFORE TRANSFERS	**-$578,733**	**-$45,657**			
	TRANSFERS FROM RESERVES	**$578,733**	**$45,657**			aligns with strategy of drawing down reserves to lessen impact of Nutrient Surcharge
	NET INCOME AFTER TRANSFERS	**$0**	**$0**			
	TOTAL OPERATING BUDGET	**$916,392**	**$821,622**			
	OPERATING RESERVE	**$229,098**	**$205,406**			

BACWA Fund Report as of June 30, 2023

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	376,500	756,803	785,632	347,671	33,284	314,387
604	LEGAL RSRV	300,000	-	-	300,000	-	300,000
605	CBC	2,114,741	2,108,678	2,125,514	2,097,905	378,676	1,719,229
	SUBTOTAL 1	*2,791,241*	*2,865,481*	*2,911,146*	*2,745,576*	*411,960*	*2,333,616*
602	BABC	*176,260*	176,600	162,616	190,244	*9,426*	180,818
606	BACC	*29,810*	*78,169*	*76,954*	31,025	-	31,025
607	BACC LEGAL RSRV	*30,000*	*30,000*	-	60,000	-	60,000
610	WOT	*270,974*	-	*17,717*	253,257	-	253,257
	SUBTOTAL 2	*507,044*	*284,769*	*257,287*	*534,526*	*9,426*	*525,100*
	GRAND TOTAL	**3,298,285**	**3,150,250**	**3,168,433**	**3,280,102**	**421,386**	**2,858,716**

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
600	BACWA	376,500	756,803	785,632	347,671	(1,400)	97,127	443,398	443,398	-	0%	-		priority # 3 for allocation
604	LEGAL RSRV	300,000	-	-	300,000	-	-	300,000	-	300,000	13%	-		priority # 1 for allocation
605	CBC	2,114,741	2,108,678	2,125,514	2,097,905	-	-	2,097,905	95,710	2,002,195	87%	-		priority # 2 for allocation
	SUBTOTAL 1	2,791,241	2,865,481	2,911,146	2,745,576	(1,400)	97,127	2,841,303	539,108	2,302,195	100%	-		
602	BABC	176,260	176,600	162,616	190,244	-	-	190,244	190,244	-	0%	-		pass-through funds, no allocation
606	BACC	29,810	78,169	76,954	31,025	(429)	-	30,596	30,596	-	0%	-		
607	BACC LEGAL RSRV	30,000	30,000	-	60,000	-	-	60,000	60,000	-	0%	-		
610	WOT	270,974	-	17,717	253,257	-	-	253,257	253,257	-	0%	-		pass-through funds, no allocation
	SUBTOTAL 2	507,044	284,769	257,287	534,526	(429)	-	534,097	534,097	-	0%	-		
	GRAND TOTAL	**3,298,285**	**3,150,250**	**3,168,433**	**3,280,102**	**(1,829)**	**97,127**	**3,375,400**	**1,073,205**	**2,302,195**	**-**			
							-	-	-		-			

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

Reconciliation to Trial Balance

Per Report above:					
General	2,865,481	STB	14930	2,302,195	
WOT, BABC, & BACC	284,769	STB	15050	1,073,205	
PROP	-			**3,375,400**	-
subtotal	**3,150,250**	STB	16300	1,829	
		STB	21350	(97,127)	
				3,280,102	-

Trial Balance Revenue Accounts

40100	Interest	(39,595)
40101	Mem Contrib	(1,456,269)
40102	Transfer	(37,822)
40103	Assoc Contrib	(186,845)
40104	Other	(1,429,719)
47310	State Grant	-
47320	Grant Retention	-
subtotal		**(3,150,250)**
Difference		**-**

BACWA Revenue Report as of June 30, 2023

Cost Center Code	Cost Center Description	Program Segment Description	Program Segment Value	Amended Budget	Current Period	FY23 - Year to Date	Unobligated
600	Bay Area Clean Water Agencies	BABC - AED and RPM Support	6200	(6,000.00)	(6,821.81)	(6,821.81)	(821.81)
		BACC - AED Support	6199	(36,000.00)	-	-	36,000.00
		BDO Affil/CS/Assoc Dues	6104	-	-	(38,846.00)	(38,846.00)
		BDO Affiliate/Associate Dues	6103	-	-	(43,575.00)	(43,575.00)
		BDO Assoc.&Affiliate Contr	6102	(187,793.00)	-	(104,424.00)	83,369.00
		BDO Fund Transfers	6141	(5,202.00)	(1,000.00)	(1,000.00)	4,202.00
		BDO Member Contributions	6101	(527,250.00)	-	(527,250.00)	-
		BDO Non-Member Contr AIR	6136	(7,217.00)	-	(7,217.00)	-
		BDO Non-Member Contr BAPPG	6135	(4,033.00)	-	(4,032.00)	1.00
		BDO Other Receipts	6105	-	-	(15,836.60)	(15,836.60)
		BDO Other Receipts (Misc)	6140	-	-	(2,653.00)	(2,653.00)
		BDO- Interest Income from LAIF	6142	(4,000.00)	-	(5,147.32)	(1,147.32)
		BDO-Alternative Investment Inc	6143	-	-	-	-
600 Total				**(777,495.00)**	**(7,821.81)**	**(756,802.73)**	**20,692.27**
602	Bay Area Biosolids Coalition	BDO Fund Transfers	6141		-	-	-
		BDO Member Contributions	6101		-	(176,600.00)	(176,600.00)
602 Total				**-**	**-**	**(176,600.00)**	**(176,600.00)**
605	Clean Bay Collaborative	BDO Fund Transfers	6141	-	-	-	-
		BDO Member Contributions	6101	(675,000.00)	-	(674,250.00)	750.00
		BDO Other Receipts	6105	(1,400,000.00)	-	(1,399,980.00)	20.00
		BDO- Interest Income from LAIF	6142	-	-	(34,447.47)	(34,447.47)
605 Total				**(2,075,000.00)**	**-**	**(2,108,677.47)**	**(33,677.47)**
606	Bay Area Chemical Consortium	BDO Member Contributions	6101	-	859.00	(78,169.00)	(78,169.00)
606 Total				**-**	**859.00**	**(78,169.00)**	**(78,169.00)**
607	BACC Legal RSRV	BDO Fund Transfers	6141	-	-	(30,000.00)	(30,000.00)
607 Total				**-**	**-**	**(30,000.00)**	**(30,000.00)**
Grand Total				**(2,852,495.00)**	**(6,962.81)**	**(3,150,249.20)**	**(297,754.20)**

BACWA Treasurer's Report Expenses and Encumbrances

Period Covering July 1, 2022 through June 30, 2023

Cost Center Code	Program Segment Description	Program Segment Value	Amended Budget	Obligated Fiscal Year to Date	Unobligated
600	AIR-Air Issues&Regulation Grp	6153	96,000.00	102,326.66	(6,326.66)
	AS-Assistant Executive Directo	6175	86,004.00	86,004.00	-
	AS-Audit Services	6180	5,452.00	5,452.00	-
	AS-BACWA Admin Expense	6173	8,118.00	2,108.32	6,009.68
	AS-EBMUD Financial Services	6176	43,297.00	41,782.27	1,514.73
	AS-Executive Director	6174	204,250.00	204,250.00	-
	AS-Insurance	6177	8,132.00	7,571.20	560.80
	AS-Regulatory Program Manager	6179	142,223.00	153,591.50	(11,368.50)
	Administrative Support	6178	-	-	-
	BC-BAPPG	6152	130,600.00	119,231.74	11,368.26
	BC-InfoShare Groups	6148	1,000.00	491.73	508.27
	BC-Laboratory Committee	6149	6,400.00	5,200.00	1,200.00
	BC-Manager's Roundtable	6154	1,000.00	-	1,000.00
	BC-Miscellaneous Committee Sup	6150	45,000.00	14,130.00	30,870.00
	BC-Permit Committee	6145	1,000.00	80.00	920.00
	BC-Pretreatment Committee	6151	1,000.00	11.98	988.02
	BC-Water Recycling Committee	6146	20,000.00	9,665.99	10,334.01
	CAR-BACWA File Storage	6165	1,561.00	720.00	841.00
	CAR-BACWA IT Software	6167	1,821.00	1,371.64	449.36
	CAR-BACWA IT Support	6166	2,705.00	-	2,705.00
	CAR-BACWA Website Dev/Maint	6163	714.00	1,299.75	(585.75)
	CAR-BACWA Website Hosting	6164	780.00	189.49	590.51
	CAS-Arleen Navaret Award	6160	2,500.00	2,500.00	-
	CAS-BayCAN	6204	5,000.00	1,500.00	3,500.00
	CAS-Misc Collaborative Sup	6162	1,500.00	11,500.00	(10,000.00)
	CAS-PSSEP	6157	20,000.00	20,000.00	
	CAS-Stanford ERC	6159	-	-	-
	GBS-Meeting Support-Annual	6170	14,369.00	10,560.77	3,808.23
	GBS-Meeting Support-Exec Bd	6169	2,706.00	1,325.45	1,380.55
	GBS-Meeting Support-Misc	6172	5,412.00	7,439.57	(2,027.57)
	GBS-Meeting Support-Pardee	6171	6,668.00	3,432.19	3,235.81
	LS-Executive Board Support	6156	2,309.00	2,309.00	-
	LS-Regulatory Support	6155	2,871.00	2,871.00	-
	WQA-CE-Nature Based Solutions	6196	-	-	-
	Write-Off Doubtful Accounts	6208	-	-	-
600 Total			**870,392.00**	**818,916.25**	**51,475.75**
602	AS-Assistant Executive Directo	6175	-	-	-
	AS-Regulatory Program Manager	6179	-	-	-
	Academia Research & Development	6203	-	25,000.00	(25,000.00)
	Administrative Support	6178	-	7,111.69	(7,111.69)
	BDO Contract Expenses	6186	-	-	-
	Collateral Development	6197	-	-	-
	Program Manager Expense	6202	-	139,929.69	(139,929.69)
	Technology Research & Development	6206	-	-	-
602 Total			**-**	**172,041.38**	**(172,041.38)**
605	Recycled Water Evaluation	6198	63,525.00	23,992.35	39,532.65
	WQA - CEC Investigations	6201	140,000.00	260,626.00	(120,626.00)
	WQA-CE Addl Work Under Permit	6191	100,000.00	91,438.00	8,562.00
	WQA-CE Risk Reduction	6190	12,500.00	-	12,500.00
	WQA-CE Voluntary Nutr Contrib	6193	-	-	-
	WQA-CE-Nature Based Solutions	6196	248,811.00	258,133.50	(9,322.50)
	WQA-CE-Nutrient WS Permit Comm	6188	1,800,000.00	1,800,000.00	-
	WQA-CE-Technical Support	6181	100,000.00	20,000.00	80,000.00
	WQA-NMSReviewer	6205	50,000.00	50,000.00	-
605 Total			**2,514,836.00**	**2,504,189.85**	**10,646.15**
606	Administrative Support	6178	36,000.00	46,954.66	(10,954.66)
	BDO Fund Transfers	6141	-	30,000.00	(30,000.00)
	GBS-Meeting Support-Misc	6172	-	-	-
606 Total			**36,000.00**	**76,954.66**	**(40,954.66)**
610	Administrative Support	6178	-	3,551.16	(3,551.16)
	BC-BAPPG	6152	-	10,000.00	(10,000.00)
	BDO Contract Expenses	6186	-	4,166.22	(4,166.22)
610 Total			**-**	**17,717.38**	**(17,717.38)**
Grand Total			**3,421,228.00**	**3,589,819.52**	**(168,591.52)**

BACWA EXECUTIVE BOARD AUTHORIZATION REQUEST

AGENDA NO.: 5

MEETING DATE: August 18, 2023

TITLE: 2nd Watershed Permit FY24 funding commitment - first installment of $1,000,000

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

RECOMMENDED ACTION

Authorize first installment of payment in the amount of $1,000,000 to San Francisco Estuary Institute (SFEI) in order to comply with the provisions of the 2nd Watershed Permit for FY24, to be paid from the CBC fund.

SUMMARY

The second Watershed Permit for Nutrients from Municipal Wastewater Dischargers to San Francisco Bay, NPDES Permit No. CA 0038873 adopted May 8, 2019, requires the commitment of $2,200,000 per year from POTW Dischargers as a collective effort to fund needed scientific studies as part of the implementation of the Regional Water Quality Control Board's Nutrient Management Strategy. The commitment is on a fiscal year basis and began July 1, 2019. Over the five year permit term, this is equivalent to a requirement to pay a total of $11,000,000. BACWA's role in meeting this commitment is to collect the needed funds from its membership and provide those funds for the undertaking of the scientific studies. In the first two fiscal years of the Watershed Permit, some of this funding was "frontloaded" to accelerate the pace of the science. The previous and anticipated annual contribution to the NMS for each fiscal year of the permit is listed below:

Schedule of BACWA payments to the NMS to comply with second Watershed Permit

FY20	**FY21**	**FY22**	**FY23**	**FY24 (budgeted)**	**Total**
$2.6M	$2.6M	$2.2M	$1.8M	$1.8M	**$11M**

The identification of the studies to be undertaken is through a stakeholder governance Steering Committee on which BACWA holds two seats. Several studies are ongoing as a result of approvals of programs and projects by the Steering Committee.

This authorization of payment in the amount of $1,000,000 to SFEI will partially meet the obligation for the fourth year of the Discharger's annual obligation under the five-year Watershed Permit per the above schedule. The purpose of delivering the payment in two installments is to ensure continuity in the Science Program in FY24. The second installment of $800,000 will be brought to the Executive Board for approval after the FY24 nutrient surcharge revenues are received from member agencies.

FISCAL IMPACT

This and other payments to fund the scientific studies are collected from the BACWA membership through a Nutrient Surcharge that is included on the annual due's invoice sent to the BACWA members, as well as a drawdown of BACWA reserves, as authorized by BACWA's Executive Board. This payment was included in BACWA's FY24 Budget, approved on April 21, 2023.

ALTERNATIVES

1. No alternatives are considered for this item, as the payment is a permit requirement.

Approved: Date:

Amit Mutsuddy, Chair
BACWA Executive Board

BACWA EXECUTIVE DIRECTOR AUTHORIZATION REQUEST

AGENDA NO.: 6

MEETING DATE: August 18, 2022

TITLE: BACWA Executive Director approval for Richard Cunningham to provide BACWA Collection Systems Committee on SSS WDR, not to exceed $13, 661 for FY24.

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

ACTION

Approval of a contract amendment with Richard Cunningham for BACWA Collection Systems Committee support on State Water Board SSS WDR, increase not to exceed $13,661 in FY24.

SUMMARY

The State Water Board released a draft update of its Sanitary Sewer System Waste Discharge Requirements (SSS WDR) in early 2022. BACWA's Collection System Committee collaborated with CASA to develop comments in response to the draft. In addition to input from volunteers from BACWA's Collection System Committee, this effort benefited from the expertise of a consultant with collection systems operational experience. At the direction of the BACWA Executive Board, BACWA staff informally reached out to several potential consultants. Richard Cunningham was selected as he has both the expertise and availability to provide the needed support. A $9,920 contract for this support was executed on February 8, 2022, and the termination date was extended by Amendment in FY23. The level of effort exceeded this contract amount by $3,741, and after discussion at the July 21, 2023 BACWA Executive Board meeting, the Board directed the Executive Director to authorize and contract amendment to retroactively fund the additional work, for a total contract value of $13,661.

FISCAL IMPACT

Funds are available for this agreement and have been allocated for this project within the Miscellaneous Committee Support line item in the BACWA FY24 Budget approved April 21, 2023.

ALTERNATIVES

1. The Executive Board directed the BACWA Executive Director to amend the contract to fund the additional level of effort, so no alternatives were considered .

Attachments: *FY24 Amendment #2*
FY 22 Contract with Richard Cunningham

Approved:

Date: August 14, 2023

Lorien Fono
BACWA Executive Director

AMENDMENT NO. 2
TO AGREEMENT BETWEEN
BAY AREA CLEAN WATER AGENCIES and
Richard Cunningham

This Amendment No. 1 is made this 18th day of November 2022, in the City of Oakland and County of Alameda, State of California, to that certain agreement of January 28, 2022 (original agreement), by and between Richard Cunningham and the Bay Area Clean Water Agencies (BACWA) (the "Agreement") in consideration of the covenants hereinafter set forth.

1. BACWA and Richard Cunningham agree to a new contract termination date of August 30, 2023

2. The new total contract amount is $13,661, which is an increase in $3,741 over the original contract.

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

BAY AREA CLEAN WATER AGENCIES

August 14, 2023

By _____ Date _____

Lorien Fono,
BACWA Executive Director

By _____ Date _____

Richard Cunningham

Date: 1/27/22

BAY AREA CLEAN WATER AGENCIES

CONSULTING AGREEMENT

TO:	Richard Cunningham 999 Victoria Ct. Lafayette, CA 94549	rc@sewers.com 925-297-9229
FROM:	Lorien Fono, Executive Director BACWA PO Box 24055, MS702 Oakland, CA 94623	lfono@bacwa.org Phone: 510-684-2993

RE: BACWA Agreement for FY22 Review of SSS WDR update.

This Agreement covers professional services to be performed by Richard Cunningham for technical support related to the State Water Board's proposed update of the Sanitary Sewer System Waste Discharge Requirements. This work is described in the attached Scope of Work and under the direction of Mary Cousins, BACWA Regulatory Program Manager. The total cost of professional services to be performed by Richard Cunningham not to exceed $9,920. This contract will be funded by the BACWA Budget under the Miscellaneous Committee Support line item.

This Agreement may be terminated by either party at any time for convenience with 30 day's notice. In the event of termination by BACWA, BACWA shall pay Richard Cunningham for professional and competent services rendered to the date of termination upon delivery of assigned work products to BACWA. The term of this agreement shall extend through June 30, 2022.

Richard Cunningham shall submit invoices to the BACWA Assistant Executive Director via e-mail. Invoices shall indicate hours associated with each task. Invoices will be paid within thirty (30) days of receipt.

BACWA Assistant Executive Director E-mail: Jennifer Dyment jdyment@bacwa.org

Approved:

By _____
Amit Mutsuddy
Chair, BACWA Executive Board

Date_____

BACWA EIN: 94-3389334

By _____
Richard Cunningham

Date_____

Tax ID: on file

DRAFT PROGRAM
BACWA ANNUAL TECHNICAL SEMINAR
Thursday September 7 - Friday September 8
Pardee Meeting Facility

Day	Time	Theme	Topic	Desired Outcomes
Thursday	8:30 AM		**Breakfast**	
	9:00 AM	**Welcome and Introductions**		
	9:05 AM	**BACWA Operational**	**Strategic Planning**	• Review Strategic Plan • Identify top priorities for fiscal year •Identify BACWA inititiatives for fiscal year
	9:45 AM		**Financial Review**	• Understanding of budget status • Discuss nutrient surcharge formula formula for FY25 • Input on future level of reserves given anticipated cash flow • Agree on dues increases for FY25
	10:30 AM		**BREAK**	
	10:45 AM	**Regulatory**	**Key Regulatory Issues**	• Receive update on what's on the regulatory horizon, including AIR/ACE • Discuss how to deploy resources to respond to important regulatory initiatives • Queue up topics for discussion with the Water Board on Friday
	12:00 PM		**LUNCH BREAK**	
	1:00 PM	**Nutrients**	**3rd Watershed Permit Negotiations**	• Reach internal consensus on negotiating positions • Plan for engagement with Water Board on Friday •Address level of funding for science
	4:00 PM		**Adjorn**	Water Board joins

Day	Time	Theme	Topic	Desired Outcomes
Water Board joins				
Friday	**8:30 AM**		Breakfast	
	9:00 AM	**2nd Watershed Permit**	**Update and Discussion** • Report-out from RW evaluation	• Understanding of evaluation and comparison between nutrient reduction approaches
	9:45 AM	**NMS Update**	**Update and Discussion**	• Update on 2023 Algal Bloom • Update on modeling, launch discussion for next 5-year plan
	10:45 AM	**BREAK**		
	11:00 AM	**3rd Watershed Permit**	**Update and Discussion**	• Discussion of key tenets • Science funding under Watershed permit 2.0
	12:00 PM	**LUNCH BREAK**		
	1:00 PM	**3rd Watershed Permit (cont'd)**	**Update and Discussion**	• Agreement on key tenets
	2:30 PM	**Regulatory Issues**	**Update and Discussion (narrow this down)** CECs - Statewide initiatives PFAS - Phase 3 and developing regulations	
	3:00 PM		**Adjorn**	

Bay Area Chemical Consortium

Annual Meeting

August 22, 2023

1. **Introductions – BACWA Staff and participants**

2. **Summary of FY23 Bid**
   a) Number of chemical bids: 11

   b) Number of agency participants: 63

   c) Agency-Chemical bid combination: 182

   d) Total cost: $78,169 ($30,000 is for BACC Legal Reserve)

   e) Participation fee: $429.50

3. **Discussion of FY23 chemical bidding: what worked, what didn't work so well, and what should do differently next year?**
   1) Regional awards vs. Single awards

4. **Issues with chemical vendors awarded bid for FY23**

5. **Proposed schedule for FY 2023-2024 bid:**

a) Survey to determine what chemicals to bid on – Early September 2023
b) BACC Agencies complete and submit worksheets – October \ November
c) Draft bid documents prepared and submitted to members for review – Dec 2023
d) Bid documents finished and advertised for bidding, bid live – late Jan 2024
e) Bid opening – late Feb 2024
f) Bid recommendations completed and circulated – mid March 2024
g) Annual wrap-up meeting – August 2024

Lorien,

Here is a matrix of costs for dry season vs year-round and TIN/TP reduction vs TIN reduction.

2023 Dollars	**Dry Season**			
Parameter	Optimization ($ Mil)	Sidestream ($ Mil)	Level 2 ($ Mil)	Level 3 ($ Mil)
For Both TIN/TP Reduction	$ 300	$ 920	$ 11,170	$ 13,750
Limited to TIN Reduction	$ 200	$ 870	$ 10,750	$ 13,020
2023 Dollars	**Year-Round**			
Parameter	Optimization ($ Mil)	Sidestream ($ Mil)	Level 2 ($ Mil)	Level 3 ($ Mil)
For Both TIN/TP Reduction	$ 330	$ 920	$ 11,990	$ 15,730
Limited to TIN Reduction	$ 220	$ 870	$ 11,500	$ 14,610

Assumptions for escalation to 2023 dollars:

1) Capital:
    a. Jan 2018 San Francisco Bay ENR CCI Index = 12014.72
    b. May 2023 San Francisco Bay ENR CCI Index = 15595.35
    c. Ratio of May 2023/Jan 2018 = 1.298
2) O&M:
    a. Bay Area CPI Increase: Office of the Director - Research Unit: California Consumer Price Index
    b. Beginning Index Value (281.308 for Feb 2018 (they ONLY do even numbered months)
    c. Ending Index Value (338.496 for April 2023 (they ONLY do even numbered months and June is NOT available yet)
    d. Ratio of April 2023/Feb 2018 = 1.203 (this translates to approximately 3.75% increase per year since 2018)

Let me know if you need additional information.

Thanks,
Mike

Mike Falk
D [916.817.4916] **M** [916.517.9012]

hdrinc.com/follow-us

Support for BACWA Collection Systems Committee – Updated Guidance for Sewer System Management Plans (SSMPs)

Bay Area Clean Water Agencies (BACWA)
Request for Qualifications

DRAFT

8/14/2023

Request for Qualifications

Support for BACWA's Collection Systems Committee –
Updated Guidance for Sewer System Management Plans (SSMPs)

Introduction

The Bay Area Clean Water Agencies (BACWA) is a regional organization created by a joint powers agreement among the five largest wastewater treatment agencies in the San Francisco Bay Area. BACWA represents Bay Area wastewater agencies by undertaking relevant scientific and technical studies and research, and by participating in the development of national, state, and regional policies. BACWA has several committees that provide a venue for our member agencies to meet and discuss issues of common importance.

One of BACWA's key committees is the Collection Systems Committee. The Collection System Committee serves as the focal point for dealing with regulatory issues related to collection systems. The Collection Systems Committee also provides a forum for sharing information amongst agencies about best practices regarding sewer system operations and maintenance, planning, engineering, management, training, safety, and related activities.

BACWA seeks the services of an individual(s), a firm, or team (Consultant) to provide support for the Collection Systems Committee. The Consultant will develop an updated guidance document regarding the development and updating of Sewer System Management Plans (SSMPs). BACWA has budgeted $50,000 in FY24 for services to the Collection Systems Committee to complete the Scope of Work described below.

Background Information on SSMPs

All sewer systems enrolled in the statewide General Order for Sanitary Sewer Systems (Order WQ 2022-0103-DWQ[1]) are required to maintain an SSMP. The General Order requires enrollees to prepare an updated SSMP every six years. The requirements for an SSMP were originally listed in State Water Resources Control Board Order No. 2006-0003-DWQ[2], Provision 14. BACWA previously contributed to SSMP guidance materials, including the most recent version from 2015, "A Guide for Developing and Updating of Sewer System Management Plans (SSMPs)[3]." As of June 2023, the required elements of an SSMP have substantially changed. Updated requirements are found in Attachment D of the General Order ("Sewer System Management Plan – Required Elements"). Because the regulatory requirements for SSMPs have changed, the BACWA Collection Systems Committee is supporting the development of updated guidance materials for its members and other enrollees around the state.

[1] State Water Resources Control Board Order WQ 2022-0103-DWQ became effective on June 5, 2023 and is available online at https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2022/wqo_2022-0103-dwq.pdf
[2] State Water Resources Control Board Order No. 2006-0003-DWQ is no longer effective as of June 5, 20023, but is available online at https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2006/wqo/wqo2006_0003.pdf
[3] "A Guide for Developing and Updating of Sewer System Management Plans (SSMPs)," September 2015. Available online at https://www.waterboards.ca.gov/water_issues/programs/sso/docs/ssmp_guidance_091015.pdf

Proposed Scope of Work

BACWA's proposed scope of work is shown below. A final scope of work will be negotiated with the selected consultant.

Task 1. Develop Guidance. Attend meetings with BACWA staff, subject matter experts from BACWA Collection Systems Committee member agencies, and statewide partners to discuss content of the updated guidance document.

Task 2. Update Guidance Document. Update the 2015 Guidance Document to reflect the requirements of the 2022 General Order, as follows:

a. For each of the eleven required SSMP Elements, clearly identify:
   - Recitation of requirements, per the 2022 General Order;
   - List of changes from the previous 2006 Order;
   - Enrollee actions and/or SSMP changes needed to maintain compliance.

b. Review and update terminology and external references in the guidance document for consistency with the 2022 General Order.

c. Streamline content where possible, with the intent of keeping the total page count of the guidance document to approximately 100 pages or less.

Assumptions:

- The consultant will provide a complete draft Guidance Document in electronic format to BACWA. BACWA will be responsible for finalizing and publishing the Guidance Document.
- There will be three progressive rounds of review by (1) BACWA Collection System Committee members, (2) statewide wastewater agency partners, such as the CASA Collection Systems Workgroup and (3) regulators at State and Regional Water Boards. BACWA staff will assist in collating edits proposed by stakeholders. The consultant will provide support in incorporating the three rounds of edits into the Guidance Document.
- BACWA will be responsible for providing technical attachments such as volume estimation worksheets.

Task 3. Outreach. Assist with development of training materials (such as presentation slides) to summarize key points from the Guidance Document. Provide at least two training sessions in virtual format to the BACWA Collection Systems Committee and/or similar stakeholder groups.

Task 4. Project Management. Keep BACWA Collection System Committee representatives updated on progress and budget.

Proposed Schedule

Requirements in the 2022 General Order related to SSMP updates have compliance due dates beginning in May 2025. The Guidance Document should be prepared by spring 2024 to allow time for enrollees to use it for these SSMP updates. This results in the following proposed schedule:

- October 2023: Contract execution
- October 2023 to January 2024: Develop Draft Guidance Document
- January 2024 to March 2024: Review of Draft Guidance Document by BACWA Collection System Committee, statewide partners, and regulators.
- April 2024 and beyond: Rollout of Guidance Document; outreach events.

Request for Qualifications

BACWA is issuing this Requesting for Qualifications for a consultant interested in providing support to the BACWA Collection System Committee. The consultant may be an individual, sole proprietor, partnership, or corporation. Consultants submitting their Qualifications should have a technical background in sewer system management and working with wastewater utilities.

Organization and Content of the Submittal

The Qualifications must be submitted in the form of a letter Statement of Qualifications with the following included:

- Name and address of consultant~~;~~
- Description of qualifications (not to exceed three pages, excluding resumes)~~;~~
- Proposed Fee estimate including hourly rates. For the purposes of the fee estimate for Task 1, assume 10 hours of meeting time, including at least one 2-3 hour workshop~~;~~.
- Resume(s) for key staff~~.~~

If added pages are needed please contact the BACWA Regulatory Program Manager, Mary Cousins, with the rationale.

Submittal

Please submit Qualifications via email to Mary Cousins (mcousins@bacwa.org) by 5pm on Friday, September 22nd, 2023.

Consultant Selection

Following receipt of Qualifications, a Selection Committee made up of BACWA Collection System Committee leaders, BACWA Executive Board member(s), and BACWA staff will evaluate the submittals. Based on submittals received, the Selection Committee will either recommend that BACWA conduct interviews by videoconference, or recommend that BACWA forego interviews and select a consultant based on the submitted Qualifications. Consultants submitting Qualifications will be notified of BACWA's decision by October 13, 2023.

Following Consultant selection, a Scope of Work and contract will be negotiated. The contract will specify billing for services on an hourly basis as required to complete the Scope of Work. The contract will begin on or after October 20, 2023. The term of this agreement shall not extend beyond June 30, 2024 but may be extended for four additional one-year terms at BACWA's discretion, ending June 30, 2028. If, upon reaching the end of any one-year term of the contract, the Board elects to extend the contract for another year, the amount of the extended contract will be negotiated at the time the contract is extended. The BACWA standard consulting agreement will be used for this work (see attachment A).

ATTACHMENT A

Standard Agreement

August 15, 2023

Christine Sotelo
Environmental Laboratory Accreditation Program (ELAP)
State Water Resources Control Board
1001 I Street
Sacramento, CA 95814

VIA EMAIL: elapca_comments@waterboards.ca.gov and Christine.Sotelo@waterboards.ca.gov

Subject: BACWA Comments on Proposed ELAP Regulations and Volume-Based Charges

Dear Christine Sotelo:

On behalf of the Bay Area Clean Water Agencies (BACWA) Laboratory Committee, we thank you for the opportunity to comment on draft language for inclusion in the Environmental Laboratory Accreditation Program (ELAP) regulations. BACWA understands that ELAP is proposing to add new language to ELAP's fee regulations during the State Water Board's upcoming regulatory fee-setting process, with the State Water Board to consider adoption in September 2023. The BACWA Laboratory Committee has reviewed the proposed language requiring tracking and reporting of sample counts (email from C. Sotelo, August 1, 2023). We are grateful for ELAP staff for conducting public outreach at the August 4th fee stakeholder meeting, and for participating in our August 2023 BACWA Laboratory Committee.

BACWA is a joint powers agency whose members own and operate publicly-owned treatment works and sanitary sewer systems that collectively provide sanitary services to over 7.1 million people in the nine-county San Francisco Bay Area. BACWA members are public agencies, governed by elected officials and managed by professionals who protect the environment and public health. BACWA's Laboratory Committee is one of eight committees that meets regularly to share information among BACWA members. The BACWA Laboratory Committee also hosts training opportunities for members, including a monthly training session devoted to implementation of TNI standards. The BACWA Laboratory Committee has enjoyed a positive working relationship with ELAP, and appreciates the time that ELAP staff have contributed by attending multiple committee meetings over the last few years.

BACWA agrees with the intent of the proposed regulations, which we understand is to minimize fees on small laboratories. Unfortunately, the cost of complying with the proposed regulations will undermine this intent. BACWA believes that the proposed regulations pose an unreasonable cost burden on laboratories, and recommends the following course of action:

PO Box 24055, MS 702 • Oakland, CA 94623 • www.bacwa.org
Central Contra Costa Sanitary District • East Bay Dischargers Authority • City of San Jose • East Bay Municipal Utility District • City & County of San Francisco

1. **Delay implementation of the proposed regulations until the Environmental Laboratory Technical Advisory Committee (ELTAC) can provide clear guidance on the definition of "regulatory purposes."**

The proposed regulations require tracking and reporting the number of "tests run per method performed at the laboratory for regulatory purposes." It is premature to adopt these regulations before the phrase "regulatory purposes" is vetted with the laboratory community through a forum such as ELTAC. In the broadest sense, wastewater treatment facilities and their laboratories exist to exercise a regulatory function – namely, compliance with California Water Code and the Clean Water Act. Even so, many of the samples run by laboratories are for process control or laboratory quality control, and it is unclear whether such samples meet the definition of "regulatory purposes."

Laboratories need clarity on how to classify tests run "for regulatory purposes" *before* these proposed regulations are implemented, because this will affect the cost of compliance with the new regulations. It would require significant effort from laboratory staff to apply the definitions outlined by ELAP staff at our August 8th 2023 BACWA Laboratory Committee meeting. BACWA's member agencies frequently run more tests than are strictly required by their NPDES permits. For example, monitoring of Total Suspended Solids may be required twice a week, but an agency may complete monitoring five times weekly; all of these test results would be submitted into CIWQS for NPDES permit compliance monitoring. Classifying the extra test results as "non-regulatory," as proposed by ELAP staff, would be confusing and could jeopardize routine compliance monitoring.

2. **Use ELTAC to continue stakeholders discussions on revising the ELAP fee structure.**

BACWA believes that there may be a more efficient way to reduce the cost burden on small laboratories, such as adjusting the fee structure that is based on Fields of Accreditation (FOAs). Ideally, any future fee structure would be predictable for laboratories. The current fee structure is easy to understand and is easily incorporated into budgets; a fee structure based on sample counts would introduce uncertainty into the budgeting process. A more complex fee structure would also increase the cost for ELAP to administer the program, which would subsequently raise costs for laboratories.

The ELTAC by-laws state that "Where possible, ELAP shall seek advice from ELTAC on all regulations and fees developed by ELAP related to environmental laboratory technology and practice." ELTAC is the proper forum for stakeholders to continue discussions about revisions to the ELAP fee structure. Ideally, ELTAC would be able to identify a fee structure that would result in lower fees for small laboratories without imposing a significant new administrative burden on all laboratories.

3. **If not delayed, the proposed regulations should automatically sunset after one year.**

BACWA's understanding is that the proposed regulations are meant to inform future adjustment of the ELAP fee structure, and are not intended to be final regulations for the purposes of

collecting fees. Given that there is a possibility that the State Water Board will *not* elect to adjust its fee structure to volume-based charges based on the data, the requirement to report test counts should automatically sunset after one year.

> *"(a) Beginning January 1, 2024 and ending January 1, 2025, accredited laboratories shall track the total number of tests run per method performed at the laboratory for regulatory purposes. Test results for regulatory purposes may not necessarily be directly uploaded to the state agency by the laboratory. The totals will be used in the future by The State Board for calculating and setting fees.*
>
> *(b) Laboratories shall report to ELAP quarterly the total number from subsection (a) for the previous three months ending March 31, June 30, September 30, and December 31, aggregated by method in computer readable tabular format. Laboratories shall report these aggregate totals by 20th day of the month following the end of each three-month period beginning on April 20, 2024 and ending April 20, 2025 .*
>
> *(c)The laboratory's reported totals in subsection (b) shall be verifiable in accordance with the laboratory's system of record compliant with Section 64814.00(n)."*

We appreciate your attention to our comments. If you have any questions or would like to discuss further, please contact our Laboratory Committee leadership, Blake Brown (bbrown@centralsan.org) or Kristy Fournier (fournier@dsrsd.com).

Respectfully Submitted,

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

cc: Christine Sotelo, ELAP
Blake Brown, Central Contra Costa Sanitary District, BACWA Lab Committee Chair
Kristy Fournier, Dublin San Ramon Services District, BACWA Lab Committee Vice Chair

DRAFT August XX, 2023

US EPA Region 9 (WTR-2-2)
Attn: Luisa Valiela
75 Hawthorne Street
San Francisco, CA 94105

Subject: **Support for SFEI's San Francisco Bay Water Quality Improvement Fund Proposal "PFAS Sources to Solutions: Identifying and Preventing PFAS Pollution in San Francisco Bay"**

Dear Luisa Valiela:

The Bay Area Clean Water Agencies (BACWA) is pleased to pledge $100,000 of matching funds towards the San Francisco Estuary Institute (SFEI) project, ***PFAS Sources to Solutions: Identifying and Preventing PFAS Pollution in San Francisco Bay***. We also pledge our expert support for the wastewater-related elements of the project, which will include BACWA staff and BACWA member agency staff time to support sampling design, sample collection, and data analyses. We appreciate the project's strong communication element, as we plan to use project deliverables to inform our future PFAS management approach and to support our local outreach and education programs.

BACWA is a joint powers agency formed under California Government Code section 6500 et seq.; our members own and operate publicly-owned treatment works (POTWs) and sanitary sewer systems that 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.

For decades, BACWA agencies have represented a significant source of funding for the San Francisco Bay Regional Monitoring Program (RMP). We recognize our critical role in ensuring the health of the Bay and monitoring its ecological and water quality status. We rely on the world-class science and monitoring capacity of SFEI and the RMP to inform POTW management decisions. Following significant reductions in wastewater discharges to the Bay through conservation, water reuse, and recycling, many BACWA agencies are moving from a model of wastewater treatment to wastewater resource reuse. Achieving this goal requires agencies to incorporate PFAS management strategies. The project's focus on PFAS product sources has particular importance for us, as preventing wastewater and urban runoff chemical contamination at its source is far more societally cost-effective than downstream management of contaminants, which in the case of PFAS is not currently technically or financially feasible.

The proposed **PFAS Sources to Solutions** project will advance PFAS monitoring in Bay Area sewersheds and watersheds and develop high-quality information on PFAS-containing products to support reduction of product sources of PFAS to wastewater and urban runoff. The project's partnership with the California Department of Toxic Substances Control's Safer Consumer Products Program will facilitate timely state action on PFAS products and improve the water quality of San Francisco Bay. This project operationalizes cutting-edge science to support the development and implementation of measures to prevent PFAS contamination in San Francisco Bay and beyond.

BACWA is confident SFEI will successfully complete all tasks indicated in this proposal and that our agencies will leverage the outcomes to inform project implementation over the following decades. We fully support the proposal and hope you will seriously consider funding it. Do not hesitate to contact me at (510) 684-2993 if you have any questions.

Sincerely,

[Insert Signature]

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

Report-Out on Mercury and PCBs Risk Reduction Work by CIEA and APAfss August 15, 2023 Meeting Summary

BACWA hosted a lunch-time meeting to share outcomes of the risk reduction work completed by the California Indian Environmental Alliance (CIEA) and APA Family Support Services (APAfss). BACWA contracted with these two community-based organizations to support member agency compliance with the risk reduction requirements of the 2017 Mercury and PCB Watershed Permit (Special Provision C.4 of Order R2-2017-0041).

PRESENTERS:
Farmmary Saephan, Director of Programs, APAfss
Sherri Norris, Executive Director, CIEA

ATTENDEES:
BACWA: Lorien Fono, Mary Cousins
Regional Water Board: Kevin Lunde, Sami Harper, Kristina Yoshida, Richard Looker, Barbara Baginska, Selina Louie, James Parrish, Debbie Phan, and Setenay Bozkurt Frucht
State Water Board: Anna Holder
SFEI: Jay Davis

Presentation from APAfss
APAfss completed the API SF Bay Fish Education and Engagement Project in 2019, and a final report is available on the BACWA website. The project involved bilingual education workshops, case management outreach with participants that eat moderate or high amounts of fish from SF Bay; and a community forum "Pediatrician Health Talk" with pregnant and new moms. The educational workshops on fish consumption included pre- and post-workshop surveys to demonstrate that participants increased knowledge on how to reduce their exposure to chemicals from eating SF Bay fish. 1,076 workshop participants completed the surveys.

Presentation from CIEA
CIEA's "Eating Fish Safely" is mostly complete, and focused on outreach and surveys at community and tribal events. The main outreach message was how to safely consume fish from SF Bay and other local sources such as lakes, reservoirs, and the ocean. CIEA is also conducting outreach and surveys to tribes on Tribal Beneficial Uses. One anticipated component of the project involving trainings at Bay Area medical clinics has been delayed by the pandemic. The group discussed whether fish consumption outreach related to PFAS is appropriate at this time. As of April 2023, an updated San Francisco Bay advisory is available from OEHHA, but OEHHA has not yet determined whether to issue a fish consumption advisory specifically related to PFAS. Staff members participating in the Bioaccumulation Monitoring Program noted that bioaccumulation monitoring in SF Bay Region is anticipated to take place in 2025. PFAS bioaccumulation monitoring will also be discussed at an October meeting of Biomonitoring California. CIEA will coordinate with the Regional Water Board to share information about survey best practices and points of contact regarding Tribal Beneficial Uses.

APA Family Support Services

API SF Bay Fish Education & Engagement Project

1. promote awareness and understanding of fish consumption advisories, contamination issues, or health risks and benefits associated with eating San Francisco Bay fish;

2. and engage the community to reduce human exposure to mercury and PCBs from eating San Francisco Bay fish

The project involves educating consumers about the risks and benefits of SF Bay fish consumption and engaging them to take on a responsive attitude and action in addressing health effects

(a) bilingual educational workshop (b) case management (c) and community forums

Community Forum: Dr. Jennifer Hsu from Chinese Community Health Care Association to facilitate a “Pediatrician Health Talk” with pregnant and new moms that included the discussion on nutrition and maintaining family’s health. Invited Public Health Nurses to consult with clients/community members.

Engagement: Case Management.

We had continued to follow-up and assess the 38 participants situation. All 38 participants selected for case management indicated moderate to high amount of SF Bay Fish consumption. (Eating more servings of SF Bay Fish per week and the type of fish more contaminated as indicated in the SF Bay Fish Consumption Guide.)

Bay Fish Consumption Educational Workshop

We served 1515 community members in our workshops. We were able to integrate SF Bay Fish Advisory Guide information and learning activity to our Healthy Living Support Groups, Prenatal Workshops, and Child Development Classes. Although 1515 signed in, we only received 1076 complete pre and post-tests.

The results from the assessment show that participants have increased knowledge on how to reduce their exposure to chemicals from eating SF Bay fish as well as identify the practices recommended as safer choices. We believe that consistent cultural education, follow-ups, discussion, and supportive options (identify other fish substitutes (instead of perch…substitute with salmon), assist in application of food vouchers and food pantries, linkages to health resources) will promote better attitude and a change in practice.

Workshops Pre-test and Post-test Results: N= 1076 SURVEYs

1) **PRE-TEST**: 28% of participants know which type of fish that women age 18-45y/o and children 1-17 y/o can eat 2 servings per week. **POST-TEST**: 90% of participants learn/know which type of fish that women age 18-45y/o and children 1-17 y/o can eat 2 servings per week.

2) **PRE-TEST:** 79% of participants know that developing fetus is sensitive to the harmful effects of mercury and PCBs. **POST-TEST:** 98% of participants learn/know that developing fetus is sensitive to the harmful effects of mercury and PCBs.

3) **PRE-TEST**: 25% of participants know the correct servings amount that women over 45 and men over 17 can safely eat from San Francisco Bay. **POST-TEST:** 87% of participants learn/know the correct servings amount that women over 45 and men over 17 can safely eat from San Francisco Bay.

4) **PRE-TEST**: 27% of participants know the type of fish that has low levels of contaminants, high levels of omega-3, and can be eaten 2 times per week. **POST-TEST**: 89% of participants learn/know the type of fish that has low levels of contaminants, high levels of omega-3, and can be eaten 2 times per week.

5) **PRE-TEST:** 25% of participants know the type of fish that shouldn't be eaten by anyone from SF Bay. **POSTTEST:** 89% of participants learn/know the type of fish that shouldn't be eaten by anyone from SF Bay.

6) **PRE-TEST**: 34% of participants know how to prepare fish to reduce the amount of PCBS. **POST-TEST**: 95% of participants learn/know how to prepare fish to reduce the amount of PCBS.

7) **PRE-TEST:** 70% of participants know how to protect children by choosing less toxic products, eating the right foods, and keeping the air free of pollutants. **POST-TEST:** 98% of participants learn/know how to protect children by choosing less toxic products, eating the right foods, and keeping the air free of pollutants.

8) **PRE-TEST:** 43% of participants know the effect of lead poison to health, learning ability and behavior. **POSTTEST:** 97% of participants learn/know the effect of lead poison to health, learning ability and behavior.

9) **PRE-TEST:** 59% of participants know where lead can be found in the environment and where people may have daily contact. **POST-TEST:** 99% of participants learn/know where lead can be found in the environment and where people may have daily contact.

SURVEY FINDINGS and What's next….

178 collected questionnaire tell us the participants that eat SF Bay Fish are low income;
Families of five with at least two adults in the household would have a household income that falls between $13,521-$43,100

We find that many families would and could qualify for CalFresh but prefer to not apply because of their housing situation and residency status (due to sponsorship status or someone in the family is in the process of applying for citizenship, and they don't want to jeopardize it by reporting their "public charge").

Only 50% of the participants that reported Bay fish consumers, and are pregnant or have someone in their household pregnant are receiving WIC or CalFresh or receiving another type of food voucher or participate in other community food program.

We find that 50% of the participants reported they worried about their food running out and 73% of the participants reported that the food they bought didn't last.

“Eating Fish Safely”
Tribal Exposure Reduction in the SF Bay Area

Aug. 2020 – Aug. 2023

BACWA Board Meeting

Aug 2023

California Indian Environmental Alliance

Project Status Summary by Task

- Outreach to Tribes, Tribal Organizations and Clinics: 6 Community Events rounds. 100% completed 1 round of outreach to Tribes
- Print & Gather Materials reach 450 families 100% completed 550 families / Tribal individuals = 185 participants
- Schedule & Coordinating Tabling: 12 events & 2 Tribal specific surveys 45 (Muekma Ohlone and Amah Mutsun (100% completed
- Administer Surveys: 180 Surveys 100% completed 185 Surveys
- Schedule & Provide Trainings at Bay Area clinics: Discussion Point 25% complete (goal 4 clinics / completed 0 / UC Berkely & add PFAS?)
- Tribal Beneficial Uses Added

Task Details

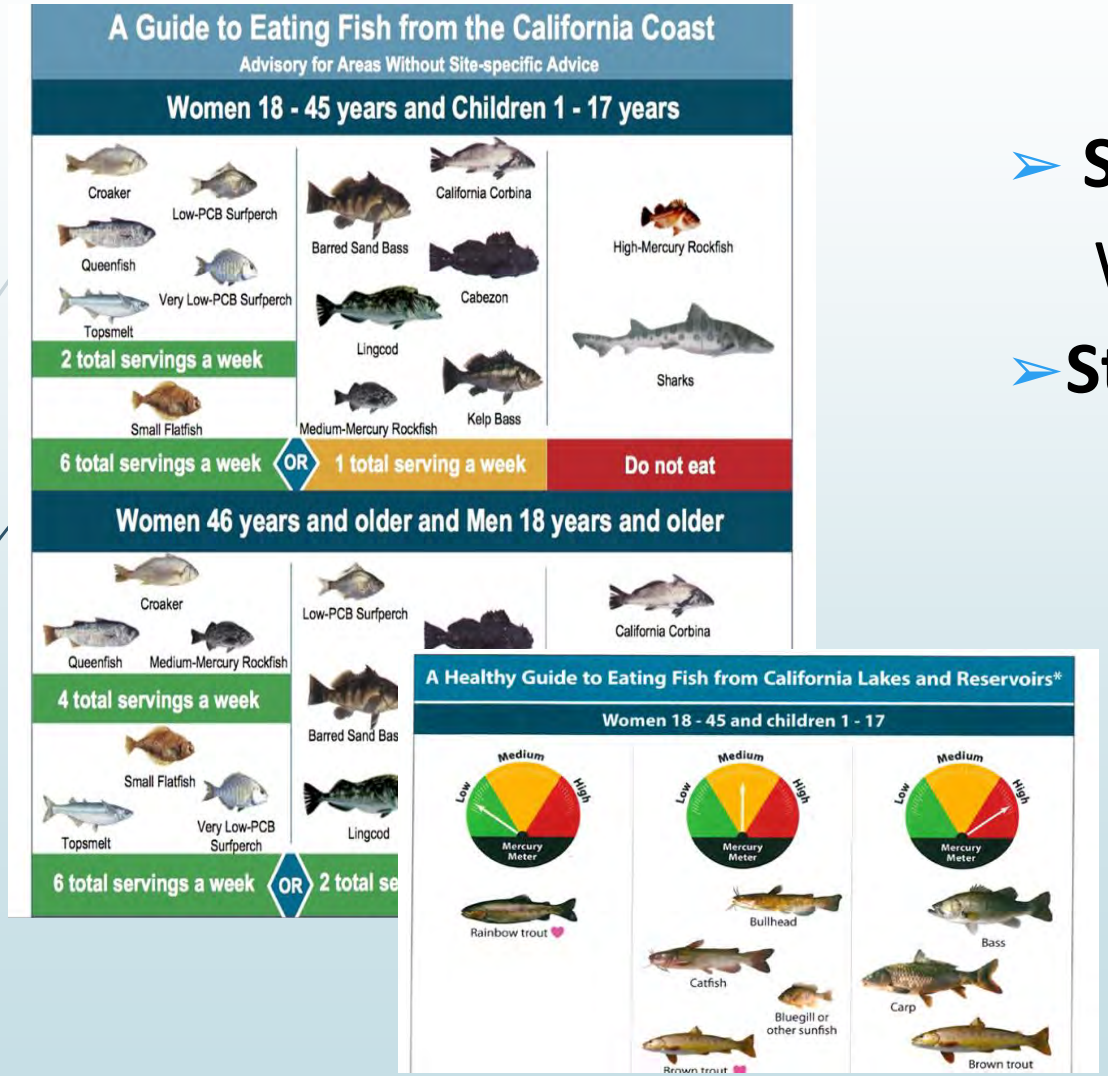
Community Events Tabling

Richmond Warrior Run, June 8, 2019

Commercial & Local Advisories

- Safest fish are in GREEN sections of advisories, and those with hearts are most healthy
- Women should not eat any fish in the RED “Do Not Eat” section of advisories
- When maximum eaten from yellow or green sections, eat no other fish that week.
- Separate advice for:
  - Women who may become pregnant (18-45) and children (1-17).
  - Women over 45 and men

Statewide Advisories



- **Site Specific**

  Where there are none:

- **Statewide Advisories**
  - Coast
  - Migrating Fish in Rivers and Estuaries
  - Lakes and Reservoirs

Need to confirmUpdated Materials & PFAS?

Historical and Ancestral Consumption (*Fishing, Gathering, and Eating*)

2. Were fish or shellfish an important part of your family's' diet? *(Circle one)* Yes No Not Sure

3. What major creeks, rivers, lakes, or other water-bodies were traditionally fished by your family and/or other Tribal members?

4. What kinds of fish or shellfish did your family or Tribal members traditionally eat? *Circle all that apply.*

Catfish	Lake Trout	Rainbow/ Steelhead	Fall Salmon	Freshwater Mussels/Clams
Eel/Lamprey	Abalone	Crayfish	Sturgeon	Saltwater Mussels/Clams
Silverside	Black or Largemouth Bass	Threadfin Shad	Blackfish	Bullhead
Sucker	Brown Trout	Spring Salmon	Perch	Scallops
Carp	Crappie	Hitch	Mosquito Fish	Sunfish
Rockfish (Brown/ Yellow Eye)	Lingcod	Cabezon (Sculpin)	Surfperch (Surf fish, including Walleye)	Crab
Shark	Halibut	Sea Bass	Surf Smelt	Jack Smelt
Oysters / Shrimp	Others (Please list):			

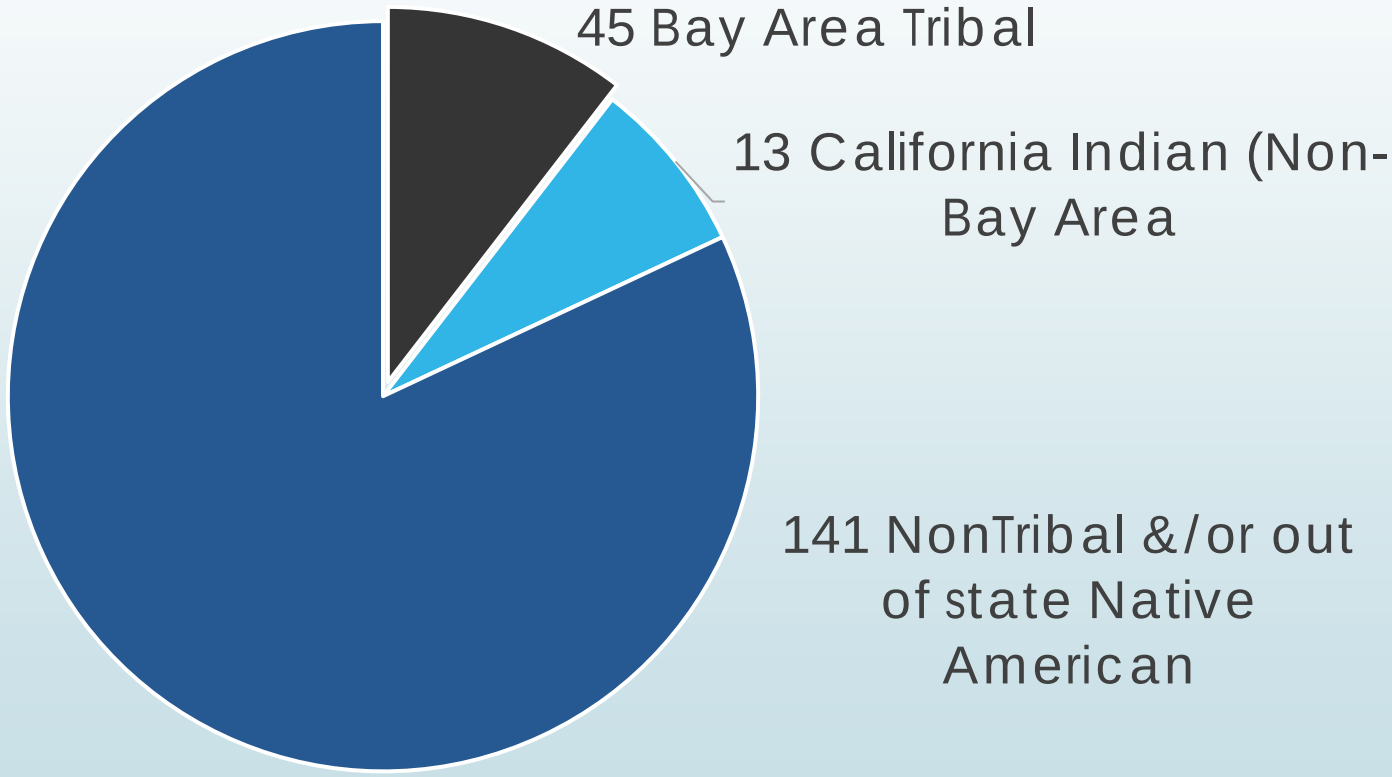
For reference, the following are serving sizes per state agencies:

The recommended serving of cooked fish is about the size and thickness of your hand

5. How much fish or shellfish did your family, ancestors or other Tribal members eat traditionally? *Circle one.*

Less than 1 serving per day	1 serving per day	2-3 servings per week	1 serving per week	1 serving per month	Less than 1 serving per month	Other frequency:

Bay Area Fish Consumption Survey Respondents



2023 Fish Consumption Survey Goal:
Survey in Partnership with Bay Area Tribes

- Amah Mutsun Tribal Band of Coastanoan
- Muwekma Ohlone Tribe of the San Francisco Bay Area

TBUs outreach

- Esselen Nation of the Ohlone/Coastanoan
- Federated Indians of Graton Rancheria, California
- Hum-U-Ren (Ohlone, Bay Miwok, Plains Miwok)
- Indian Canyon
- Indian People Organizing for Change (IPOC); Confederated Villages of Lisjan; Chochenyo/Karkin Ohlone
- Mishewal Wappo Tribe of Alexander Valley

One Tribal Survey Completed & 2 Other Committed

Questions for BACWA Board

- UC Berkeley – CME Option
- PowerPoint now & wait for launch?
- Review Team
  - Tribal Organizations
  - Clinics
  - BACWA
  - OEHHA
  - CDPH
- PFAS, Bay Area Clinic Recommendations or Referrals (4)

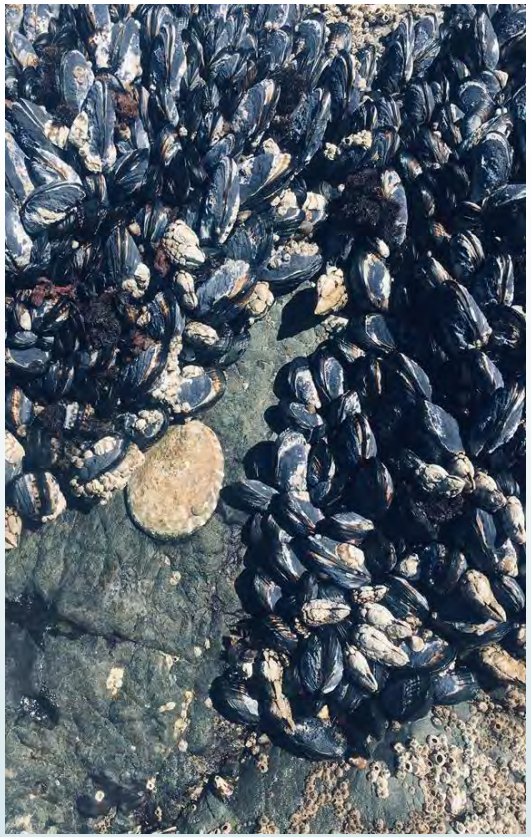
Thank you!

California Indian Environmental Alliance

Sherri Norris

sherri@cieaweb.org

(510) 848-2043



Advancing Water Reuse in the Bay Area: Exploring Opportunities and Challenges for Interagency Collaboration

Schedule: Start at 9 am/End by 3:15 pm

Registration and breakfast (8:30-9)

9-9:10 Welcome and Introductions-30

- Lorien's Welcome on behalf of BACWA (1-2 min)
- Introductions, based on size of group

9:10-9:15 Overview of the day and desired outcomes: 5 min

1. Identify similarities and differences in **issues and drivers**
2. Recognize **opportunities for partnerships** to address current and future reuse challenges
3. Evaluate **the right scale(s)** (regional/subregional/local) to address these challenges
4. Improve **capacity for and commitment to collaboration** among Bay area agencies and utilities

9:15-9:35 Icebreaker Exercise"-20

- Make interactive, depending on size of group
- Suggestions (see below for other ideas)
    - Bingo card to fill out with "little known facts" about agencies or individuals
    - Challenge people to group according to different or similar characteristics (e.g largest and smallest water or wastewater agency; agencies that report to boards v. councils)

9:35-10:15 Drivers and Opportunities -40 min

- Wastewater Agency (nutrients) (10)
- Water Agency (water supply) (10)
- RWQCB perspective (5)
- Example of successful local partnership (15 min)

10:15 am-10:30 Break

10:30-11:15 Small group breakout #1 : Current Perspectives on Reuse and Other Priorities (45 min)

NOTE: A Collaboration Team Member will facilitate each of the small groups. In addition, each group will create a roster of attendees and select a recorder and/or reporter.

- Discussion of key issues and approaches. Example Questions:

- What is your agency's view of water reuse potential and challenges in achieving that potential in your area?
- How do these agency views compare across agency types and subregions of the Bay Area?
- What has your agency already done to consider and advance planning and implementation of water reuse? How effective have those efforts been?
- Are there aspects of the water issues faced by your community that do not fall within your jurisdiction? How do you engage on those issues?
- What are your agency's current highest top 2 priority concerns and issues:
  - Water supply reliability (Meeting current and future water demand)
  - Improving system resilience and sustainability in the face of risks (disasters, etc.)
  - Ecosystem preservation and protection
  - Limiting carbon emissions
  - Permit compliance
  - Keeping rates down
  - Other (please describe)

11:15-11:45 Report out

11:45-12:45 Lunch

NOTE: After some discussion, we came to the conclusion that lunch should be "free time" during which people are encouraged to mingle as they will without formal structure

12:45-1:15 Overview of Findings and "Lessons Learned" in WRAP 2.16 on overcoming obstacles to collaboration

- Governance (Dave)
- Regulation (Felicia)
- Economics (Bob)
- Management (Eric)
- Leadership (Shannon)

NOTE: Relate learnings to 3 desired outcomes of workshop; leave 10 min for questions/discussion

1:15-2:30 Small group breakout #2 (45 min): Improving Reuse Capacity Through Collaboration

- From the perspective of your subregion, can collaboration enhance your capacity to respond to climate change, nutrient reduction, water supply (etc)? How?
- How is your ability to form partnerships impacted by the five factors discussed in WRAP 2.16 (see above)?
- Which partnerships would be most likely to enhance the effectiveness of your organization now and in the future for considering and advancing water reuse?

2:30-3:15 Report out leading to Plenary discussion and Next Steps and Potential Actions (45 min)

SFEP will compile next steps to facilitate participants' report-outs to their agencies, and inform future work for this group.

Additional Notes

Background References (to be provided in advance)

Prior discussion of interagency collaboration in:

- Recycled water (2011)
- EPA WRAP 2.16 Report
- Excerpt: HRSD experience (case study)

Ice Breaker Exercise

Characteristics to identify:

- Part of a city government
- Part of a county government
- appointed board/elected board
- Water
- Wastewater
- Water and Wastewater
- Stormwater/Flood Control
- Top considerations:
- Rates
- Water security
- Permit compliance
- Sustainability

Of interest:

- Native Bay Area manager/board member
- Oldest water agency in East Bay

Focused Questions:

1. **How can PARTNERSHIPS help your agency respond to their current and expected future challenges and constraints**?
    - Which challenges are currently your highest priorities?
    - How to agencies in the region currently collaborate to access IRWM funds?
        - Who has received IRWM funding to date?
        - Is this an appropriate model for further coordination?
        - What steps are being taken to improve this process?

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

NOTICE OF OPPORTUNITY TO COMMENT AND PUBLIC HEARING FOR TENTATIVE ORDER AMENDING MUNICIPAL WASTEWATER DISCHARGE PERMITS

Board staff has prepared a draft National Pollutant Discharge Elimination System permit amendment for nearly all municipal wastewater dischargers in the region in accordance with the Clean Water Act and Porter-Cologne Water Quality Control Act. The draft permit amendment would update effluent limits and monitoring requirements for total residual chlorine and remove effluent limits and monitoring requirements for oil and grease.

The deadline for receipt of comment on the draft permit amendment is **5:00 p.m. on September 29, 2023**. Comments must be sent to the **attention of Robert Schlipf**. Persons wishing to file written comments on any aspect of this matter must do so no later than this deadline so that such comments may be considered.

The Board will consider adopting the draft permit during a meeting to commence at 9:00 a.m. on **November 8, 2023**. Interested persons are invited to express their views during this hearing.

Pursuant to California Code of Regulations Title 23 section 2050(c), any party who challenges the Board's action through a petition to the State Water Resources Control Board under Water Code section 13320 will be limited to raising only those substantive issues that were raised before the Board at the hearing or in timely submitted correspondence.

All documents related to the draft permit amendment may be inspected at the Board office. The draft permit amendment and developments on this matter are available at www.waterboards.ca.gov/sanfranciscobay. Board staff responses to comments will be posted on that website a week prior to the hearing. Contact **Robert Schlipf** at **(510) 622-2478** or **robert.schlipf@waterboards.ca.gov** if you have questions.

Recycled Water Committee –
Report to BACWA Board

Recycled Water Committee Meeting on: 07/18/23
Executive Board Meeting Date: 08/18/23
Committee Chairs: Stefanie Olson, Reena Thomas

Committee Request for Board Action: None

Attendees participated remotely and in-person at EBMUD's Administration Building.

City of Petaluma Recycled Water Program

Chelsea Thompson (Deputy Director of Environmental Services, City of Petaluma) provided an overview of the City's recycled water program (link to slides). The City's Ellis Creek Water Recycling Facility (ADWF during the drought = 3.7 MGD) includes tertiary treatment and disinfection to provide non-potable recycled water. River discharge is prohibited May 1 to Oct. 20, which has encouraged system expansion. The City is part of the North Bay Reuse Association. The City plans to expand tertiary treatment capacity from 4.68 to 6.8 MGD by 2026. The program currently has 23 customers, about 10% in the potable service area. Most existing customers are on the east side of the river, raising issues of equity and environmental impact. Potable offsets are about 65 MG/year. Plans for urban expansion include 6,700 LF of new pipeline for 76 AF. Plans for ag expansion include 14,000 LF of new pipeline for 300 AF. The City received about $16.4 Million in grant funding for these expansion projects. Next steps include Integrated Water Master Planning including recycled water, groundwater, regional brackish water desalination, and stormwater capture. Challenges include low recycled water rates that do not cover cost of operations; ag customers do not provide potable offset; and the difficulty of pipeline expansion across the river. Considerations include having separate urban and ag rates, or seasonal ag rates to encourage off season storage.

Funding Updates

Sachi Itagaki (Kennedy Jenks) provided updates on state and federal funding opportunities. Recycled Water Facilities Planning Grants continue to be available from the State Water Board, for up $500,000 at a 50% match. Funding for pilot studies to support future potable reuse may also be available from the State Water Board (CEQA must be complete). Construction grants are also available from the State Water Board (up to $15M for 35% of total project); applications are rolling. USBR WaterSMART recycled water and desalination feasibility study planning grants may be funded in FY24 (pending federal budget; 35% of project cost up to $1M). The next round of construction grant funding for Title XVI projects and for large-scale water recycling projects is expected in August 2023 (see WaterSMART Schedule). Construction loans are available through USEPA WIFIA and CWSRF (limited funds).

Regional Recycled Water Study Update

Mike Falk (HDR) shared that the finalized Regional Evaluation of Potential Nutrient Discharge Reduction by Water Recycling was submitted to the Regional Water Board by the July 1st deadline. In the report, recycled water projects are categorized by confidence levels 1-4. Currently, approximately 15% of dry season flows and 7% of nutrient loads are diverted from the Bay. By 2045, this could grow to 39% of flows and 15% of loads (see Tables 3-22 and 3-23). The total estimated cost of the recycled water projects identified in the report is approximately $5.1 billion. The types of recycled water are expected to change over time. In 2020, 43,200 AF was delivered to mostly industrial and landscape customers. Projected deliveries for 2045 of 140,200 AF are mostly indirect potable reuse, industrial and landscape. Next steps include advancing a menu of nutrient removal options for POTWs, and reissuing the Nutrient Watershed Permit in 2024.

Title 22 Engineering Reports

Carrie Del Boccio (Woodard & Curran) reported on revised Guidelines for the Preparation of Title 22 Engineering Reports. The previous version was from 2001. Updates include new outlines that include potable reuse projects, expanded requirements related to operations, disinfection and process flow diagrams in Section 2.5, and use information now split between Section 4 (Use Areas) and Section 4 (Recycled Water Uses).

Site Supervisor Training Update

A subcommittee is continuing to develop a site supervisor training video. Links to the third and fourth draft videos were shared with committee members, and the videos should be finalized later this summer.

Legislation and Regulatory Update

Reena Thomas (EBMUD) provided an update on state legislation, including these bills of interest:

- AB 682 (Matthis) – SWRCB online search tool. WRCA support position. No issues anticipated.
- SB 366 (Caballero) – CMUA bill requiring water planning targets – WRCA support position. Amendments clarify targets are only for planning purposes and not mandates.
- SB 745 (Cortese) – Drought Resistant Building Act – WRCA maintains oppose unless amended position. Building Standards Commission to "consider requiring" onsite reuse in commercial and housing buildings. WRCA proposing to remove "requiring" language to clarify that this is voluntary.
- AB 1572 (Friedman) – Non-functional turf – WRCA maintains neutral, watch position. Does not include/apply to recycled water.

DDW has released the Direct Potable Reuse "Advance Copy" of Draft Regulation Text. The Notice of Proposed Rulemaking was expected July 21st to begin the 45-day public comment period. A cursory review noted some, but not all comments from CASA/WateReuse were addressed in the revision.

Announcements

- Materials from a March 2023 workshop on social and racial justice for wastewater agencies are now available from the San Francisco Estuary Partnership

Save the Date!

Wednesday, September 20, 2023

Advancing Water Reuse in the Bay Area: Exploring Opportunities and Challenges for Interagency Collaboration.

This workshop will be held from 9 am to 3:15 pm at the Regional Water Board's offices in downtown Oakland.

Next Regular Meeting – Tuesday, November 21 2023, 10:30 am - Zoom

Meeting Date: August 2, 2023
Executive Board Meeting Date: August 18, 2023
BAPPG Chairs: Robert Wilson, Autumn Ross

Committee Request for Board Action: None

34 attendees (all participating remotely) representing 24 member agencies and the Regional Water Board, plus three guest speakers

Updates on Committee Activity and Announcements

- Regional Water Board Announcements: The Regional Water Board has compiled nominations for the 2023 Dr. Teng-Chung Wu Pollution Prevention Award. The winner will be presented at its November meeting.
- Pesticides Subcommittee: In July, BAPPG representatives met with USEPA to discuss urban pesticide use in the context of pesticide registration reviews. USEPA recommended that BAPPG focus on possible mitigation measures for the down-the-drain pathway and engaging early in the review process.
- Budget. Contracts are in place for the FY24 fiscal year.
- Outreach / Marketing: Co-Chair Robert Wilson is working with SGA to develop messaging for the fall campaign, which will tentatively tailor the "Toilets Aren't Trash Cans" message for the upcoming flu and cold season. Members noted that offering free flyers for multi-family units has been popular.
- BACWA Announcements: An algae bloom is recurring in San Francisco Bay (see BACWA website and Regional Water Board FAQ). Phase 2 of the PFAS Regional Study will be presented at the RMP Annual Meeting on October 12th in Berkeley. BACWA is developing a public-facing communications plan, which will be shared soon. Direct Potable Reuse regulations are now available for review. Hg and PCB loading trends are summarized in the July 2023 Executive Officer's report and are consistent with past loads.
- CWEA: Abstracts for the Annual Conference are due August 18th.

Presentations on Quaternary Ammonium Compounds (QACs)

Three speakers presented on Quaternary Ammonia Compounds (QACs), a class of chemicals that are commonly used in industrial, agricultural, and consumer products. Use of these chemicals has recently increased because they have antimicrobial properties and are USEPA-approved disinfectants against COVID. Usage has also increased after triclosan was banned in hand soaps.

- Miguel Méndez from San Francisco Estuary Institute presented on QACs in San Francisco Bay, including levels in surface sediments and sediment cores. Sediment cores suggest that QAC levels may have decreased since the 1970s, possibly due to changes in consumer products and/or wastewater treatment. SFEI completed a study of QACs at three Bay Area wastewater treatment plants. The QACs detected in the highest concentrations in influent are those used in disinfectants. Typical influent concentrations were less than 0.1 mg/L. Most of the influent QACs (>97%) are removed during wastewater treatment. QACs are also found in biosolids. SFEI plans additional work on Bay water and stormwater in the upcoming year.
- Chris Lehman (City of San Luis Obispo) and Mike Falk (HDR) presented on an unprecedented plant upset and interference event at the San Luis Obispo Water Resource Recovery Facility in September 2020 that was caused by QACs. QACs are harmful to nitrifying bacteria, and the facility's ability to nitrify was compromised for approximately a month until operators could determine the source of the problem and correct it. QACs can harm cBOD removal at concentrations of about 10-30 mg/L, but they can harm nitrification at concentrations of 2-5 mg/L. San Luis Obispo observed total QACs in the range of 10 mg/L in plant influent (e.g., much higher than those observed in SFEI's study). The interference was resolved using NeutraQuat, a chemical that can be added to bind QACs.

References mentioned during the discussion include the San Francisco Safer Disinfectants list; resources from Biomonitoring California; and a recent ES&T paper by Arnold et al. (May 2023) QACs: A Chemical Class of Emerging Concern.

Next BAPPG General Meeting: October 4th, 2023, 10am – 12pm, In-Person at the Regional Water Board Offices in Downtown Oakland (1515 Clay St., 2nd Floor, Room 11). This meeting will featuring our Annual Pollutant Prioritization discussion. See you there!

Executive Director's Report to the Board

July 2023

EXECUTIVE BOARD MEETING AND SUPPORT

- Worked with BACWA staff to plan and manage 7/21 Executive Board meeting
- Conducted the Executive Board meeting agenda review with the BACWA Chair
- Hosted 7/21 Executive Board meeting and distributed draft meeting notes
- Continued to track all action items to completion

COMMITTEES:

- Attended Recycled Water Comm, 7/18
- Planned and hosted managers RT, 7/24

REGULATORY:

- Delivered BAAQMD Board item to staff
- Met with SFEI to discuss PFAS WQIF grant application, 7/5, 7/20
- Attended WRF Microplastic webinar, 7/12

NUTRIENTS:

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

- Met with members of SCCWRP OAH TAC Steering committee, 7/5, 7/19
- Participated in SCCWRP OAH TAC steering committee process, 7/5, 7/19
- Met with Summit Partners on OAH listing in Oregon, 7/6
- Discussed nutrient special studies next steps and contract amendment with consultant
- Convened special modeling meeting with BACWA members, 7/17
- Attended NBS CMG meeting, 7/7
- Reviewed and updated nutrient data metrics for interim limits
- Met with Science team to discuss modeling scenarios, next steps
- Discussed nutrient issues and engagement with BACWA Board with NMS science manager
- Planned and hosted NST meeting, 7/21
- Discussed 2023 Algal bloom with consultant and developed BACWA communique

COMMUNICATIONS

- Held weekly progress meetings with Civic Edge
- Reviewed key messaging document and provided edits

FINANCE:

- Reviewed the monthly BACWA financial reports
- Reviewed and approved invoices
- Worked with AED to plan for FY23 closeout and FY24 start
- Held year-end meeting with EBMUD Accounting staff, 7/18

COLLABORATIONS:

- Met with Consultant team and hosted planning workshop for interagency collaboration, 7/24
- Attended CASA RWG meeting, 7/20
- Discussed CASA regulatory collaboration retreat, planned for October 2023

ASC (AQUATIC SCIENCE CENTER)

- Reviewed materials sent via email by ASC ED

BABC (BAY AREA BIOSOLIDS COALITION)

- Distributed online poll to vote on project management and dues structure
- Reviewed invoicing information

BACC (BAY AREA CHEMICAL CONSORTIUM)

- Discussed administrative and policy issues with administrator
- Discussed potential updates to bid structure with members
- Met with North Bay Chemical Consortium to discuss common issues, 7/18

BACWWE (BAY AREA COALITION FOR WATER/WASTEWATER EDUCATION)

- Worked with BACCE to contribute to David Jenkins memorial scholarship through WEF

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 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.
- Reviewed AED and RMP performance plans and met with staff to discuss

MISCELLANEOUS MEETINGS/CALLS:

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

Board Calendar

September 2023 – November 2023 Meetings

DATE	AGENDA ITEMS
Sept 7 & 8, 2023 ***Pardee***	• Nutrient Negotiations • Budgeting priorities • Identification of FY24 Initiatives
October 20, 2023 ***Central San***	**Approvals & Authorizations:** • Annual Report • SSS WDR Support Contract Approval **Policy / Strategic Discussion:** • PFAS Phase II report review **Operational:** •
November 17, 2023 ***EBMUD Orinda***	**Approvals & Authorizations:** • **Policy / Strategic Discussion:** • **Operational:** •

BACWA
BAY AREA
CLEAN WATER
AGENCIES

BACWA ACTION ITEMS

Number	Subject	Task	Responsibiity	Deadline	Status
	Action Items from July 2023 BACWA Executive Board Meeting		**resp.**	**deadline**	**status**
2023.7.1	BACWA matching support for WQIF PFAS proposal by SFEI	BACWA ED will bring more WQIF PFAS proposal information to the meeting in August.	ED	8/1/2023	Complete
2023.7.2	Contract overrun for SSS WDR support	BACWA ED to prepare an amendment to authorize the additional funds	ED	8/18/2023	Complete
2023.7.3	Pardee program	Final Pardee program will be shared at the August BACWA Board Meeting	ED	8/18/2023	Complete
2023.7.4	BACC Update - Annual meeting August 22	BACWA ED and AED to share agenda for BACC meeting and share at August Board meeting	ED & AED	8/18/2023	Complete
	Action Items Remaining from Previous BACWA Executive Board Meetings				
2023.1.38	Debrief from January 17 Joint meeting with R2	BACWA RPM to share WRF report with BACWA community when it is available.	RPM	8/1/2023	Complete
2022.10.22	BACWA Reserve Policy	BACWA ED will bring a revised draft Reserve Policy to the Executive Board for approval at a future meeting.	ED		WIP
2022.3.42	Plain-language review of nutrient science program	BACWA ED to work with SFEI to augment plain-language review to include graphics, simplified text, and a summary of what we have learned so far.	ED		on going

FY24: 4 of 4 Action Items are complete
FY23: 55 of 58 Action Items are complete
FY22: 51 of 52 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*

Executive Summary

THE Water Research FOUNDATION

Identifying the Amount of Wastewater That Is Available and Feasible to Recycle in California (4962)

As California has entered a period of extended drought, it is essential to evaluate the viability of potential alternative water supply sources to meet both human and environmental needs. The primary purpose of this report was to develop an understanding of the spatial distribution of effluent flows and the potential feasibility of corresponding water reuse projects. A summary of the project and key findings from this study are summarized below.

ES.1 Backgrouna and Objectives

The contemporary targets for water recycling in California were based on the 2003 Recycled Water Task Force report (DWR, 2003), which projected that the effluent flow available for reuse in 2030 would be 6.5 Mac-ft/y. According to the California State Water Resources Control Board (SWRCB), the 2019 influent flow of municipal wastewater to treatment facilities in California totaled about 3.6 million ac-ft/y (Mac-ft/y). The success of water conservation and efficiency measures in California have resulted in an available effluent flow for reuse that is about half of what was predicted only two decades ago. The reduced flows highlight the dramatic change in water use that has taken place. The principal objectives of this study are:

(1) Identify the amount of treated municipal wastewater available to produce recycled water in California now and projected into the future.

(2) Determine how much of the treated municipal wastewater is feasible to be reused—considering the required minimum instream flows, water quality, proximity to potential recycle water users, and cost.

The tasks outlined in the scope of work and completed in this study are as follows:

- Task 1: Estimate the total municipal wastewater available in California for recycled water production (Chapter 2)
- Task 2: Estimate the total municipal wastewater volume that could be used if treated for beneficial reuse (Chapter 3)
- Task 3: Identify potential uses of recycled water at a planning level estimate (Chapters 4 and 5)
- Task 4: Analyze the cost of treating available municipal wastewater to the following recycled water standards: un-disinfected secondary, disinfected secondary-23, disinfected secondary-2.2, disinfected tertiary, and full advanced treatment (Chapter 6)
- Task 5: Summarize how much of the available treated municipal wastewater is feasible to reclaim and reuse, along with the associated costs (Chapter 7)

ES.2 Key Findings

- Task 1: The total volumetric flow to wastewater treatment facilities (WWTFs) in California hypothetically available for reuse in 2019 was 3.58 Mac-ft. It is projected that influent dry-weather wastewater flows in California will remain relatively constant, notwithstanding worsening drought or greater than expected population declines, increasing from 3.1 in 2019 to an estimated 3.3 Mac-ft/y in the year 2030.
- Task 2: In 2019, the total volume of planned water reuse was approximately 0.7 Mac-ft/y, representing 22% of the total effluent flow. Further, an additional 1.83 Mac-ft/y of effluent flow is technically feasible for planned reuse projects in 2030, resulting in a total potential reuse volume of 2.53 Mac-ft/y or 77% of the total effluent flow
- Task 3: The potential uses of recycled water were assessed by Water Board Region

(WBR)—see Table ES-1—using a spatial model to locate sites of interest for water reuse planning, including areas of agricultural land use, reservoir locations, potable water connections, recharge areas, and power generation facilities. The potential volumetric demand and supply of recycled water was analyzed for each WWTF and reuse site(s) identified. As shown on Figure ES-1, WBRs 2 and 4 have the greatest potential for supplemental effluent reuse, followed by WBRs 9, 5S, 8, and 5F.

Table ES-1. Summary of estimated 2030 population served by onsite and municipal sewers organized by water board region (WBR).

Data Sources: Raucher and Tchobanoglous (2014) and California Department of Finance (2022)

WBR	Estimated 2030 population		
	Total in WBR	Served by onsite systems	Served by sewers
1. North Coast	707,917	253,148	454,768
2. San Francisco Bay	6,026,500	206,373	5,820,126
3. Central Coast	2,549,966	343,558	2,206,408
4. Los Angeles	10,109,659	166,744	9,942,915
5F. Central Valley – Fresno	2,839,970	660,790	2,179,181
5R. Central Valley – Redding	520,928	278,552	242,376
5S. Central Valley – Sacramento	5,406,275	838,858	4,567,417
6T. Lahontan – Tahoe	137,228	109,584	27,644
6V. Lahontan – Victorville	2,453,005	361,198	2,091,807
7. Colorado River	2,773,872	861,430	1,912,441
8. Santa Ana	5,093,491	412,814	4,680,677
9. San Diego	3,241,739	206,244	3,035,495
Total	41,860,549	4,699,293	37,161,256

- Task 4: The baseline cost of water reuse projects is driven primarily by the cost associated with upgrading existing WWTFs, the cost associated with advanced water treatment, and the cost to transport the water to reuse sites. The relative proximity of potential reuse sites to the WWTF location varied by WBR and application, resulting in a wide range of costs. In many cases, coastal communities had longer transport distances to reach potential agricultural and recharge basin sites. A summary of median cost to produce and deliver recycled water in WBRs with the highest potential are shown on Figure ES-1. It was noted that the estimated cost for water reuse projects was highly variable and may not account for site-specific factors that can increase costs by a significant factor.

Executive Summary

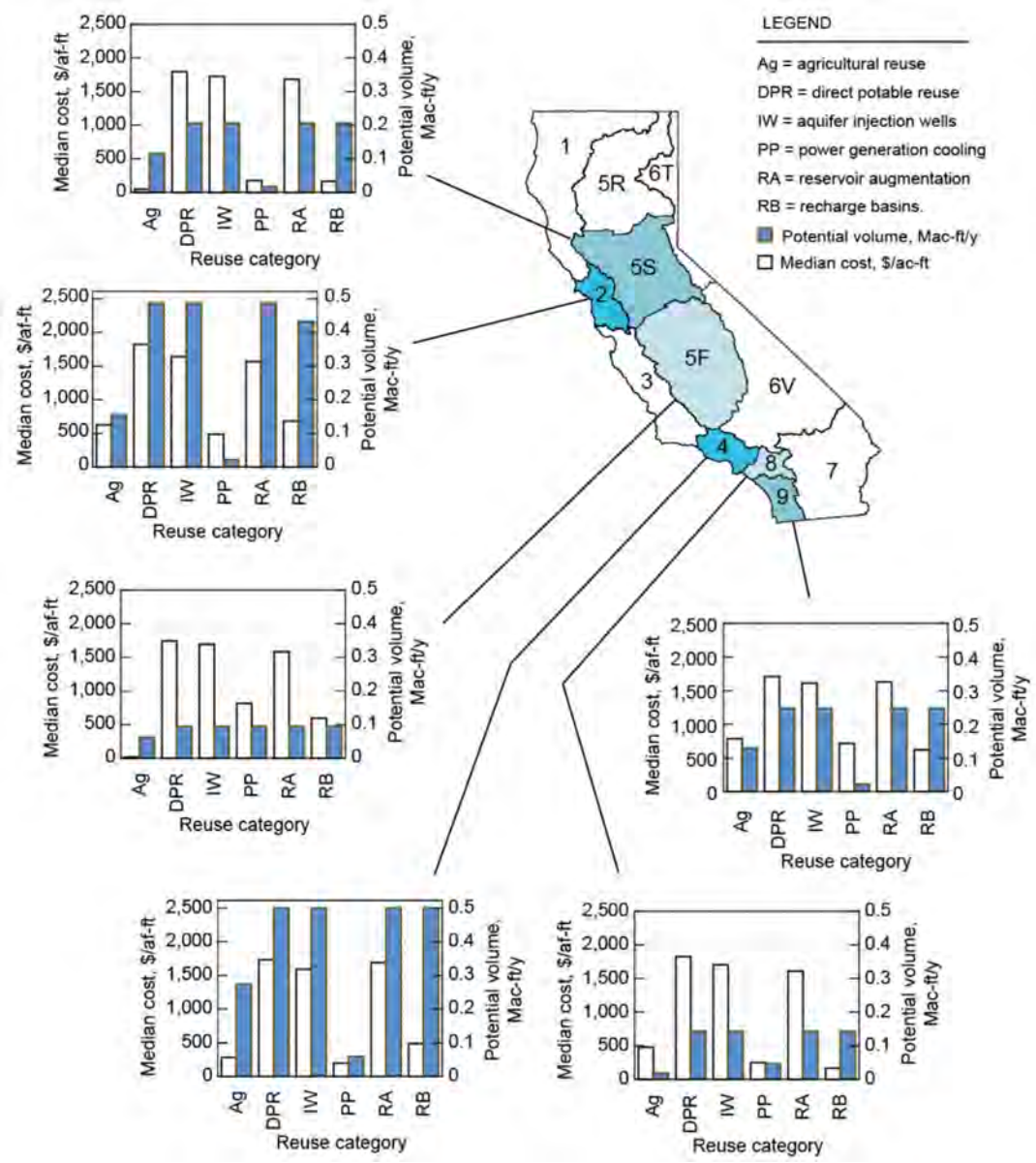


Figure ES-1. Map showing WBRs with more than 100,000 ac-ft/y of effluent potentially available for water reuse.

The highlighted WBRs represent the areas with the greatest technically feasible potential water reuse (WBRs shaded to differentiate between regions).

- Task 5: Approximately 0.52 Mac-ft/y of the water volume discharged to inland surface waters is technically feasible to divert to planned reuse projects. However, the opportunities and challenges associated with diversion of effluent flows from freshwater systems will need to be considered on a case-by-case basis. In contrast, an estimated 1.32 Mac-ft/y of effluent flow is technically feasible to divert from coastal disposal, thereby augmenting or offsetting potable water use.

ES.3 Project Approach

Using 2019 Volumetric Annual Report data from the SWRCB along with projections of population

and water use rates, a wastewater flow balance was developed to estimate dry weather flow and the fraction of that flow that could be treated to California recycled water standards. To model the total cost of increased volumetric water reuse, the estimated 2030 potential reuse volume from 86 WWTFs with effluent flowrates greater than 4000 ac-ft/y was matched with hypothetical sites for water reuse. An ArcGIS modeling approach was used to identify the route and calculate the least cost recycled water transmission pipeline. In addition to pipeline cost (capital and operating), the cost to upgrade and operate the WWTF for the required water quality was estimated for each of the 86 facilities.

The total estimated cost to produce, deliver, and use recycled water was determined for six different water reuse applications: (1) secondary or tertiary recycled water to agricultural irrigation, (2) tertiary recycled water for power plant cooling towers, (3) tertiary recycled water for groundwater recharge basins, (4) advanced treatment recycled water for groundwater injection wells, (5) advanced treatment recycled water for reservoir augmentation, and (6) enhanced advanced treatment recycled water for direct potable reuse. Due to the highly site-specific nature of urban dual plumbed systems, retrofit of urban areas for recycled water use was not considered in this study.

ES.4 Results

In 2019, the total volume of planned water reuse was approximately 0.7 Mac-ft/y, representing 22% of the total effluent flow. The technical volume of water available for reuse in 2030 was estimated using adjustment factors to scale current WWTF effluent base flows greater than 4000 ac-ft/y to predicted future effluent base flows at these facilities. The adjustment factors were used to model considerations such as water losses during wastewater management, predicted regional changes in water usage and population, variations in recycled water utilization, and required stream discharges. Using the adjustment factors, it is projected that an additional 1.83 Mac-ft/y of effluent flow is technically feasible for planned reuse projects in 2030, resulting in a total potential reuse volume of 2.53 Mac-ft/y or 77% of the total effluent flow. The technical water reuse potential in each WBR was found to vary due to logistical constraints associated with different reuse applications. Projected total reuse volumes in WBRs with significant water reuse potential are summarized in Figure ES-1.

The baseline cost of water reuse projects is primarily driven by expenses associated with upgrading and operating advanced recycled water treatment processes and the cost to transport the water to reuse sites. The relative proximity of potential reuse sites to the WWTF location was highly variable and resulted in a distribution of costs. In many cases, coastal communities had longer transport distances to reach potential agricultural and recharge basin sites. As shown in Table ES-2, agricultural irrigation has the lowest relative median cost and direct potable reuse has the highest median cost. In general, each community will need to evaluate the tradeoffs of alternative water supply options to determine the most feasible approach to securing future water supply.

Table ES-2. Summary of estimated cost range for alternative recycled water projects at 86 WWTFs with effluent flows exceeding 4000 ac-ft/y.

Water reuse application	Facility matches	Estimated baseline project cost, $/ac-ft			
		Minimum	Maximum	Mean	Median
Agricultural irrigation	51	5	1661	344	130
Power plant cooling towers	25	15	854	389	281
Recharge basins	74	102	1574	500	593
Reservoir augmentation	86	1234	2089	1647	1648
Injection wells	86	955	1929	1638	1693
Direct potable reuse	86	1168	2202	1775	1808

The total estimated cost of water reuse in WBRs with greater than 0.1 Mac-ft/y of total additional reuse potential is summarized in Figure ES-1. As shown in Figure ES-1, WBRs 2 and 4 have the greatest potential for effluent reuse; however, it was found that the median cost of agricultural irrigation and groundwater recharge basins are relatively higher in coastal WBRs. The cost of agricultural reuse was found to be lowest in WBR 5 due to the closer proximity of WWTFs with potential reuse sites. As a high-level study, site-specific factors that increase the cost of an actual project as compared with the estimates presented in Figure ES-1 could not be taken into account. For example, the cost calculations did not include any site-specific considerations including regulatory compliance, implementation of flow/load equalization, upgrades or repairs to existing wastewater collection and treatment systems, the availability of land to construct new facilities, unknown construction obstacles, water rights issues, the construction of large reservoirs for seasonal flow storage, potential in-stream flow requirements, or local political issues. Further, and perhaps most significantly, the cost of concentrate (brine) management from reverse osmosis (RO) treatment was not included but is expected to add 80 to $750/ac-ft to the overall cost, depending on the management options available.

ES.5 Benefits

Given the severity of the ongoing drought in California, it is expedient to consider if the available water resources are being used as effectively as possible to support both human and natural systems. A substantial volume of water currently being discharged to the ocean is technically feasible to recycle. There is also a significant volume of effluent being discharged to freshwater systems, but this water is a lower priority to divert to reuse because of the importance of maintaining stream flow and dependent habitat. From this research, utilities can get a high-level perspective on minimum project costs, the statewide distribution of costs, and potential constraints that may be relevant for potential recycled water projects. However, it was also found that the indoor water conservation rates that have been achieved in California will have an overall negative impact on the availability and quality of recycled water, as well as impacts on existing

infrastructure that all utilities will need to take into consideration for long term planning.

Related WRF Research	
Project Title	**Research Focus**
Impact of Wastewater Treatment Performance on Advanced Water Treatment Processes and Finished Water Quality (4833)	Water resource recovery facilities (WRRFs) typically focus on meeting effluent discharge requirements; however, with the increased prevalence of potable reuse, there is a need to rigorously define the impact of effluent quality on different advanced water treatment processes. This project will bridge this gap through examination of whole system impacts, performance, and economics. A set of practical tools, including a cause and effect database, decision support flow chart, and case study documents, will be developed to help utilities choose the best path for implementing potable reuse.
Long Term Water Demand Forecasting Practices for Water Resources and Infrastructure Planning (4667)	This project describes models, methods and practices currently used to forecast long-term demand in support of water resources and infrastructure planning and management, and the deliverables discuss how current practices have evolved over time. The research team considered the accuracy of different forecasting approaches by comparing actual with model-estimated demands. The team identified the extent to which forecasting models, methods, practices and communications influence decisions about utility plans and actions. Finally, this project developed recommendations to help improve the role and effectiveness of demand forecasting practices and different types of communication strategies on water resource and infrastructure planning and decision-making.

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4962 **July 2023**

BACWA BAY AREA CLEAN WATER AGENCIES

Regulatory Program Manager's Report to the Executive Board

July 2023

BACWA BULLETIN: Completed and circulated July Bulletin.

CHLORINE BLANKET PERMIT AMENDMENT: Continued review of revised administrative draft blanket NPDES permit amendment for residual chlorine and oil & grease. Solicited and compiled comments from laboratory and permits committee members regarding Chlorine Process Control Plans, and discussed with Regional Water Board staff. Prepared and submitted comments to Regional Water Board staff.

NUTRIENTS: Participated in planning meeting for nutrient reduction modeling scenarios. Tracked development of algae bloom in late July.

PFAS: Participated in second data review meeting with Phase 2 study participants; continued to develop draft cost-sharing details for SFEI-led grant application for Phase 3 study.

COMMITTEE SUPPORT:

BAPPG – Participated in outreach meeting to USEPA Pesticide Programs staff; participated in monthly pesticides committee meeting; assisted with preparations for August committee meeting.
Collection System – Discussed draft scope of work regarding Sewer System Management Plan (SSMP) guidance with committee leaders.
Laboratory – Prepared draft agenda for August committee meeting.
Permits – Prepared draft agenda for August committee meeting; tracked development of proposed basin plan amendment for NPDES permitting; reviewed chlorine blanket permit amendment (see above).
Recycled Water – Assisted with preparations for July committee meeting, including draft agenda and inviting speakers; reviewed draft Direct Potable Reuse regulations.
Executive Board – Prepared regulatory updates for July Executive Board meeting.

ADMINISTRATION/STAFF MEETING – Participated in Staff Meeting; Prepared draft Performance Plan for FY24 and finalized after discussion with Executive Director; assisted with processing committee meeting attendance certificates for FY23.

BACWA MEETINGS ATTENDED:
BAPPG Pesticides Subcommittee (7/11)
Nutrient Reduction Modeling Scenarios (7/17)
PFAS Phase 2 Study Participants Discussion (7/31)

EXTERNAL EVENTS ATTENDED:
SCCWRP *Ceriodaphnia* Science Panel (7/5)
Outreach to USEPA Pesticide Programs (7/5)
Regional Water Board Basin Plan Amendment CEQA Scoping Meeting (7/10)