Executive Board Meeting
AGENDA
Friday, January 17, 2025 9:00 AM - 12:30 PM (PDT)
SFPUC
525 Golden Gate Ave., San Francisco, CA 94102
To attend the meeting via Zoom or submit a comment please request access.

Agenda Item		Time	
ROLL CALL, INTRODUCTIONS, AND TELECONFERENCE ETIQUETTE		**9:00 AM**	
PUBLIC COMMENT	Guidelines	**9:05 AM**	
CONSIDERATION TO TAKE AGENDA ITEMS OUT OF ORDER		**9:10 AM**	
CONSENT CALENDAR		**9:11AM**	
1 December 6, 2024 BACWA Executive Board meeting minutes			3-7
2 November 2024 Treasurer's Report			8-16
APPROVALS AND AUTHORIZATIONS		**9:15 AM**	
3 Approval: FY25 NMS Payment #2, $1.1M			17-18
POLICY/STRATEGIC		**9:25 AM**	
4 Discussion: Draft BACWA Communications Plan			19-22
5 Presentation: Civic Edge presentation on social media vignettes			23-32
6 Discussion: PFAS Update			
i. PFAS in the news	NYTimes Article		33-49
ii. BAPPG PFAS Spring campaign			50-52
iii. PFAS Regulatory Update			53-66
7 Informational: Collective advocacy for nutrient funding			
8 Informational: RFI for Compliance Milestones			
BREAK		**10:30 AM**	
9 Informational: NMS Update	Link to Planning Subcommittee Notes		67-71
10 Informational: EPA Region IX SF Bay Program Office funding update			
11 Informational: Quaternary Ammonia Compounds			
12 Discussion: Next joint meeting with R2			72
13 Informational: 2025 NPDES Compliance Letter			73-79
OPERATIONAL		**11:30 AM**	
14 Informational: Update on BABC integration into BACWA			
15 Informational: FY26 Budget Schedule			80
16 Discussion: Nutrient surcharge calculations			
17 Discussion: Pardee dates			81
18 Discussion: Annual meeting preliminary agenda			82
REPORTS		**12:10 AM**	
19 Committee Reports			83-90
20 Member highlights			
21 Executive Director Report			91-92
22 Board Calendar and Action Items			93-94
23 Regulatory Program Manager Report			95
24 Other BACWA Representative Reports			
a. RMP Technical Review Committee	Samantha Engelage, Alicia Chakrabarti, Blake Brown		
b. RMP Steering Committee	Karin North; Amanda Roa; Eric Dunlavey		
c. Summit Partners	Lorien Fono; Jackie Zipkin		
d. ASC/SFEI	Lorien Fono; Amit Mutsuddy; Lori Schectel		
e. Nutrient Governance Steering Committee	Amit Mutsuddy, Eric Dunlavey; alternates: Lori Schectel, Jackie Zipkin		
e.i Nutrient Planning Subcommittee	Eric Dunlavey		
e.ii MERHAB MaTAG	Amit Mutsuddy		
f. SWRCB Nutrient SAG	Lorien Fono		
g. BAIRWMP	Cheryl Munoz; Florence Wedington; Jackie Zipkin		
h. CASA State Legislative Committee	Lori Schectel		
i. CASA Regulatory Workgroup	Lorien Fono; Mary Cousins		

j. RMP Microplastics Liaison	Jesse McDermott		
k. Bay Area Regional Reliability Project	Jackie Zipkin		
l. San Francisco Estuary Partnership	Lorien Fono; Jackie Zipkin		
m. CPSC Policy Education Advisory Committee	Colleen Henry		
n. California Ocean Protection Council	Lorien Fono		
o. California Water Quality Monitoring Council	Lorien Fono		
p. CASA Air Toxics Steering Committee	Lorien Fono, Jason Nettleton		
25 **SUGGESTIONS FOR FUTURE AGENDA ITEMS**		**12:25pm**	
NEXT MEETING			
The next meeting of the Board is scheduled for February 21, 2025 at Central San			
ADJOURNMENT		**12:30 PM**	

Executive Board Meeting Minutes
Friday, December 6, 2024, 9:00 AM - 12:30 PM (PDT)
EBMUD, 375 11th Street, Oakland, CA 94706

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

Attendees

Name	Agency/Company
Aaron Winer	West County Wastewater District
Alicia Chakrabarti	EBMUD
Amanda Roa	Fairfield-Suisun Sewer District
Blake Brown	Central San
Cyrus Farsaei	City of San Mateo
Daniela Brandao	SFPUC
Dan Gill	DSRSD
David Donovan	City of Hayward
David Richardson	Woodard & Curran
Jean-Marc Petit	Ironhouse Sanitary District
Jen Jackson	CA Department of Toxic Substances Control
Jennie Pang	SFPUC
Jennifer Dyment	BACWA
Lorien Fono	BACWA
Mary Cousins	BACWA
Mike Falk	HDR
Robert Knox	City of San Mateo
Sara Sadreddini	Black & Veatch
Tim Lewis	Dublin San Ramon Services District
Tom Hall	EOA

Jackie called the meeting to order at 9:02am

Agenda Item

ROLL CALL, INTRODUCTIONS, AND TELECONFERENCE ETIQUETTE

PUBLIC COMMENT None

CONSIDERATION TO TAKE AGENDA ITEMS OUT OF ORDER None

CONSENT CALENDAR

1 October 18, 2024, BACWA Executive Board meeting minutes

2 November 22, 2024, Special Executive Board Joint meeting with R2

3 October 2024 Treasurer's Report

Consent Calendar items 1 thru 3: A motion to approve was made by Eric Dunlavey (City of San Jose) and seconded by Lori Schectel (Central Contra Costa Sanitary District). All were in favor. None opposed. None abstained.

APPROVALS AND AUTHORIZATIONS

4 Approval: FY2024 BACWA Audit and Financial Statement - BACWA ED gave a summary of the annual audit.

Approvals and Authorizations item 4: A motion to approve was made by Amy Chastain (SFPUC) and seconded by Amit Mutsuddy (EBMUD). All were in favor. None opposed. None abstained.

5 Approval: FY2025 Contract with HDR for Tasks 1-5 of Nutrient Permit Support - BACWA ED summarized the HDR contract to support implementation of the 2024 nutrient watershed permit.

Approvals and Authorizations item 5: A motion to approve was made by Eric Dunlavey (City of San Jose) and seconded by Lori Schectel (Central Contra Costa Sanitary District). All were in favor. None opposed. None abstained.

POLICY/STRATEGIC

6 Presentation: DTSC Safer Consumer Products update - Jen Jackson from the California Department of Toxic Substances Control (DTSC) provided an update on the agency's Safer Consumer Products program. Link to slides. Her presentation covered the program's regulatory framework, including the candidate chemical list, priority products, alternatives analysis and regulatory response. Jen summarized each part of the framework and shared information about what they are currently working on. Jen summarized the work plan focus areas for the next 3 years and they include: beauty products, synthetic turf, paint, cleaning products, children's products and microplastics, motor vehicles, electronics and food contact materials. Group discussion and questions followed. There is an opportunity for additional engagement with DTSC on PFAS, quaternary ammonium compounds, and other constituents with a down-the-drain pathway.

7 Discussion: Statewide Pesticides engagement - BACWA RPM shared that the BAPPG pesticides committee is setting up training to welcome new members to the group to reduce technical barriers to participation. Engagement with summit partners is planned for a future meeting in the next few months.

8 Discussion: Draft BACWA Communications Plan - BACWA ED shared a slide that summarizes the difference between BAPPG and BACWA Communications Steering Committee.

The slide is in the packet. BACWA ED shared an outline of the communications plan. The draft plan is currently in preparation.

9 Presentation: Preview of 2024 GAR data - Mike Falk presented preliminary data for the next nutrient watershed permit Group Annual Report that will be submitted to the Water Board by April 1, 2025. Mike reviewed the draft content of the report, the status and the next steps. Group discussion and questions followed.

Action Item: BACWA ED and RPM to set up a series of meetings to coordinate on compliance schedule milestone information needed for the 2024 GAR.

10 Discussion: Request for BACWA participation in WRF opportunity 5288 - Mike Falk summarized a proposed WRF project to expand an existing guidance tool to address greenhouse gas emissions, optimization of nutrient removal, and energy efficiency. HDR submitted a grant application and the outcome is pending. BACWA has provided in-kind contributions in the past.

Action item: BACWA ED will follow up with Mike Falk and bring an update to the January meeting.

BREAK

11 Discussion: Memo to support extended compliance schedules - BACWA ED shared that the Water Board has committed to seeking an amendment to the state's compliance schedule policy. BACWA prepared a memo with an infographic regarding the need for a compliance schedule extension due to schedule constraints on nutrient removal projects (see packet). BACWA ED said the Water Board created a survey to elicit feedback on what plans and policies the Water Board needs to update, and the compliance schedule policy is included in the survey.

Action item: BACWA to provide template answer for agencies to use to respond to the State Water Board survey on state plans and policies.

12 Discussion: Debrief from R2 Joint meeting, Nov 22 - BACWA ED shared that the minutes are in the packet. BACWA ED encouraged agencies to speak up individually and share feedback on the science program. Group discussion and questions followed.

13 Informational: Updated memo justifying Non-competitive EPA grant for nutrient management - BACWA ED provided an update and should know more by the end of December. We are in a holding pattern to see what happens with the new administration.

Action item: BACWA ED will provide update in January.

14 Informational: NMS Update - 11/6 Planning Subcommittee notes - BACWA ED shared that the notes are in the packet.

15 Informational: Statewide recycled Water production update - BACWA RPM shared information on recycled water production for 2023 based on recently compiled data from the State Water Board. Recycled water production in the Bay Area was slightly down in 2023, mainly because wet weather reduced irrigation demands.

16 Informational: Onsite reuse regulations update - BACWA RPM shared information about draft regulations for onsite nonpotable reuse that the State Water Board plans to release for public comment in February 2025.

OPERATIONAL

17 Informational: Update on BABC integration into BACWA - BACWA ED shared a slide that summarized a proposed transition schedule to integrate BABC into BACWA. BABC will be voting on if they will make this transition in early 2025.

Action item: BACWA ED will incorporate BABC support when the FY26 BACWA budget is developed.

18 Discussion: Meeting dates for CY 2025 - BACWA ED share that the schedule is in the packet. We will keep the August meeting, then decide later this year if we can drop it.

Action item: BACWA AED will send calendar invites.

19 Informational: FY26 Budget Schedule - BACWA ED shared that summary is in the packet and BACWA AED summarized the schedule.

20 Discussion: Annual meeting planning kickoff - BACWA ED said the BACWA Annual Meeting will be Friday May 2nd at the David Brower Center, in Berkeley. The group discussed topics and possible presenters. There was support for presentations on pollution prevention, climate change (including new BCDC guidance on sea level rise), and emergency response planning / mutual aid.

REPORTS

21 Committee Reports - Committee reports are in the packet. Committee leaders were invited to the annual holiday lunch held immediately after the Executive Board meeting, and several were in attendance.

22 Member highlights – Members shared agency updates, including the need to respond to the recent region-wide tsunami warning.

23 Executive Director Report - in the packet

24 Board Calendar and Action Items - in the packet

25 Regulatory Program Manager Report - in the packet

26 Other BACWA Representative Reports

a. RMP Technical Review Committee Samantha Engelage, Alicia Chakrabarti, Blake Brown

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

c. Summit Partners Lorien Fono; Jackie Zipkin

d. ASC/SFEI Lorien Fono; Amit Mutsuddy; Lori Schectel

e. Nutrient Governance Steering Committee Amit Mutsuddy, Eric Dunlavey; alternates: Lori Schectel, Jackie Zipkin

e.i Nutrient Planning Subcommittee Eric Dunlavey

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j. RMP Microplastics Liaison Jesse McDermott

k. Bay Area Regional Reliability Project Jackie Zipkin

l. San Francisco Estuary Partnership Lorien Fono; Jackie Zipkin

m. CPSC Policy Education Advisory Committee Colleen Henry

n. California Ocean Protection Council Lorien Fono

o. California Water Quality Monitoring Council Lorien Fono

p. CASA Air Toxics Steering Committee Lorien Fono, Jason Nettleton

27 SUGGESTIONS FOR FUTURE AGENDA ITEMS

NEXT MEETING

The next meeting of the Board is scheduled for January 17, 2025 at SFPUC

ADJOURNMENT

BACWA
BAY AREA
CLEAN WATER
AGENCIES

December 17, 2024

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

MEMO FROM: Phoebe Grow, Treasurer, East Bay Municipal Utility District

SUBJECT: Fifth Month FY 2024 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, 2024 through November 30, 2024** (Five months of Fiscal Year 2025). 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: Grow, Phoebe
Sent: Monday, January 6, 2025 10:05 AM
To: Houck, Matt
Subject: RE: November 2024 Treasurer's Report

Approved! Thanks for following up.

Happy New Year!

-Phoebe

Phoebe Grow, P.E. (she/her) | **Principal Management Analyst** | 510.287.0205 | phoebe.grow@ebmud.com

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From: Houck, Matt <matt.houck@ebmud.com>
Sent: Monday, January 6, 2025 9:49 AM
To: Grow, Phoebe <phoebe.grow@ebmud.com>
Subject: FW: November 2024 Treasurer's Report

Hi Phoebe,

Hope you had a nice holiday! I just wanted to follow up on this?

Thanks,

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

From: Houck, Matt
Sent: Wednesday, December 18, 2024 8:41 AM
To: Grow, Phoebe <phoebe.grow@ebmud.com>
Subject: November 2024 Treasurer's Report

Hi Phoebe,

Please approve BACWA – November 2024 Treasurer's Report for distribution.

Let me know if you have any questions.

Happy Holidays!!

Fund Balances

In FY25 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 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 November 30, 2024, was $748,780 which is significantly higher than the target reserve of $384,651 which is intended to cover 3 months of normal operating expenses based on the BACWA FY25 budget. $538,171 is 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, which leaves $210,609 unobligated.

CBC Fund: This fund provides the resources for completing special investigations as well as meeting regulatory requirements. The ending fund balance on November 30, 2024, was $3,233,493 which is higher than the target reserve of $1,000,000. $102,742 of the ending fund balance is encumbered to meet line-item expenses for completion of the Group Annual Report and Nutrient Watershed Permit contracts. This leaves an actual unencumbered reserve balance of $2,130,750 (i.e., actual fund balance of $3,130,750 less target reserves) as of November 30, 2024. 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 November 30, 2024 (42% of the FY) are at 97.4%

Expenses as of November 30, 2024 (42% of the FY) are at 38.4%

FY 2025
BACWA BUDGET to ACTUAL

BACWA BAY AREA CLEAN WATER AGENCIES

BACWA FY25 BUDGET	***Line Item Description***	**FY 2025 Budget**	**Actual November 2024**	**Actual % of Budget November 2024**	**Variance**	**NOTES**
REVENUES & FUNDING						
Dues	Principals' Contributions	$553,929	$553,930	100%	$1	FY25: 3% increase 5 @ $110,786
	Associate & Affiliate Contributions	$195,780	$195,780	100%	$0	FY25: 3% increase. 12 Assoc: $9142 47 Affiliate: $1831; UC Berkeley $500
Fees	Clean Bay Collaborative	$675,000	$675,000	100%	$0	Same as FY23. Prin: $450,000; Assoc/Affil: $225,000
	Nutrient Surcharge	$1,600,000	$1,600,000	100%	$0	See Nutrient Surcharge Spreadsheet
	Voluntary Nutrient Contributions		$0	0%	$0	
Other Receipts	AIR Non-Member	$7,582	$7,582	100%	$0	3% increase (Santa Rosa)
	BAPPG Non-Members	$4,264	$4,264	100%	$0	3% increase (Sta Rosa, Sac Reg'l, Vacaville) $1,421/each
	Other		$0		$0	
Fund Transfer	Special Program Admin Fees (WOT)	$1,000	$0	0%	-$1,000	
	Special Program Admin Fees (BACC)	$39,522	$0	0%	-$39,522	400 hours of AED support $98.80/hr
	Special Program Admin Fees (BABC)	$6,000	$0	0%	-$6,000	ED, AED and RPM support
Air Toxics	CASA Passthrough	$600,000	$528,900	88%	-$71,100	New in FY25
Interest Income	LAIF	$80,000	$99,125	124%	$19,125	BACWA, Legal, & CBC Funds invested in LAIF
	Total Revenue	**$3,763,077**	**$3,664,581**	**97.38%**	**-$98,496**	

BACWA FY25 BUDGET	***Line Item Description***	**FY 2025 Budget**	**Actual November 2024**	**Actual % of Budget November 2024**	**Variance**	**NOTES**
EXPENSES						
Labor						
	Executive Director	$224,230	$74,743	33%	-$149,487	(incl 2.6% CPI SF Bay Metro Area Dec 2023)
	Assistant Executive Director	$94,417	$32,328	34%	-$62,089	(incl 2.6% CPI SF Bay Metro Area Dec 2023); $78.68/hour; Reflects 1200 hours
	BACC Administrator	$39,522	$12,318	31%	-$27,204	400 hrs AED support at $98.80 per hr
	Regulatory Program Manager	$156,136	$54,934	35%	-$101,202	(2.6% CPI SF Bay Metro Area Dec 2023); $115.65/hour, Reflects 1350 hours
	Total	**$514,304**	**$174,322**	**34%**	**-$339,982**	
Administration						
	EBMUD Financial Services	$43,297	$10,718	25%	-$32,579	FY25 no change
	Auditing Services	$5,672	$0	0%	-$5,672	Finanical Auditors through EBMUD; per auditor rate schedule
	Administrative Expenses	$4,059	$99	2%	-$3,960	50% less than FY24
	Insurance	$10,753	$8,457	79%	-$2,296	15% increase from FY24 (10-15% est. increase per Alliant)
	Total	**$63,781**	**$19,273**	**30%**	**-$44,508**	
Meetings						
	EB Meetings	$3,500	$1,318	38%	-$2,182	27% increase from FY24
	Annual Meeting	$14,369	$1,900	13%	-$12,469	No change from FY24
	Pardee	$6,801	$2,159	32%	-$4,643	No change from FY24
	Misc. Meetings	$10,000	$3,575	36%	-$6,425	33% increase from FY24 to accommodate conferences
	Total	**$34,670**	**$8,952**	**26%**	**-$25,718**	
Communication						
	Website Hosting	$743	$0	0%	-$743	2% increase from FY24, Go Daddy website hosting and domain registration
	File Storage	$812	$350	43%	-$462	2% increase from FY24, box.net
	Website Development/Maintenance	$1,624	$180	11%	-$1,444	2% increase from FY24

FY 2025
BACWA BUDGET to ACTUAL

EXPENSES						
	IT Support	$2,814	$0	0%	-$2,814	2% increase from FY24
	BACWA Value of Wastewater Communication	$40,000	$9,741	24%	-$30,259	New line item in FY24, no change from FY24
	Other Commun	$1,894	$0	0%	-$1,894	2% increase from FY23; MS Exchange, Survey Monkey, PollEv, Zoom, Netfile
	Total	**$47,887**	**$10,271**	**21%**	**-$37,616**	
Legal						
	Regulatory Support	$50,000	$67,342	135%	$17,342	Increase from FY24, new contract with Meyers Nave - received invoices from FY24 late
	Executive Board Support	$2,403	$128	5%	-$2,275	2% increase from FY24
	Total	**$52,403**	**$67,469**	**129%**	**$15,066**	
Committees						
	AIR	$76,000	$22,522	30%	-$53,478	$75k consulting support, $1k misc expenses. Carollo Engineers
	BAPPG	$170,560	$58,039	34%	-$112,521	Includes CPSC @ $5,000, OWOW @ $10,000, NSAC @ $10,000 and Pest. Reg Spt. @ $71,500
	Assest Management Committee	$500	$0	0%		No change from FY24
	Biosolids Committee	$500	$0	0%	-$500	$500 in FY25
	Collections System	$15,500	$50,000	323%	$34,500	SSS WDR Support - Budgeted in FY24 but invoice came late
	O&M Committee	$1,500	$413	28%	-$1,087	Requested $1000 increase from FY24 for Annual Meeting lunch
	Laboratory Committee	$500	$1,219	244%	$719	FY24 TNI invoice paid in FY25.
	Permits Committee	$500	$0	0%	-$500	No change from FY24
	Pretreatment	$500	$0	0%	-$500	No change from FY24
	Recycled Water Committee	$500	$0	0%	-$500	Requested default budget amount for FY25
	Misc Committee Support	$45,000	$0	0%	-$45,000	No change from FY24
	Manager's Roundtable	$1,000	$0	0%	-$1,000	No change from FY24
	Total	**$312,560**	**$132,193**	**42%**	**-$180,367**	
Collaboratives						
	Collaboratives					
	State of the Estuary (SFEP-biennial)	$0	$0	0%	$0	Bienniel in Even Fiscal Years
	Arleen Navarret Award	$2,500	$0	0%	-$2,500	Next Award will be disbursed in FY27
	BayCAN	$5,000	$0	0%	-$5,000	
	Bay Area One Water Network	$0	$0	0%	$0	No change from FY24
	Bruce Wolf Scholarship	$4,000	$0	0%	-$4,000	FY22, FY23, FY24, FY25 FY26
	Passthrough for CASA for air toxics	$500,000	$0	100%	-$500,000	New line item in FY24
	Misc	$1,500	$4,000	267%	$2,500	NBWA, SFEI Coastal Climate Resilience Scholarship donation
	Total	**$513,000**	**$4,000**	**1%**	**-$509,000**	
Other						
	Unbudgeted Items					
	Other	$0	$0	0%	$0	
		$0	**$0**	**0%**	**$0**	
Tech Support						
	Technical Support					
	Nutrients					
	Watershed Permit NMS Contribution	$2,200,000	$1,100,000	50%	-$1,100,000	Advance funding for 2nd Watershed Permit Sciece Studies; Final $ TBD
	NMS Voluntary Contributions					
	Additional work under permit	$100,000	$10,000	10%	-$90,000	Includes HDR PO for $225k spread out over FY20-24.
	Regional Study on Nature Based Solutions		$50,744			SFEI FY24 invoice paid in FY25.
	Nutrient Workshop(s)	$0	$0	0%	$0	Pilot Studies/Plant Review/Innovative Technologies; Might change
	NMS Reviewer	$50,000	$1,400	0%	-$48,600	No change from FY24, M. Connor Contract
	Regional Nutrient Special Study	$100,000	$0	0%	-$100,000	New item in FY25
	General Tech Support	$100,000	$0	0%	-$100,000	AB617 emissions factors, PFAS, other nutrient support
	CEC Investigations	$10,000	$0	0%	-$10,000	PFAS Study Phase 3
	Risk Reduction	$12,500	$0	0%	-$12,500	Will plan new risk reduction tasks for current Hg/PCB Watershed Permit
	Total	**$2,572,500**	**$1,162,144**	**45%**	**-$1,410,356**	

FY 2025
BACWA BUDGET to ACTUAL

EXPENSES						
	TOTAL EXPENSES	**$4,111,105**	**$1,578,624**	**38.40%**	**-$2,532,480**	
	PROJECTED EXPENSE DEVIATION FROM BUDGET					
	NET INCOME BEFORE TRANSFERS	**-$348,028**	**$2,085,957**			
	TRANSFERS FROM RESERVES	**$348,028**	**$0**			aligns with strategy of drawing down reserves to lessen impact of Nutrient Surcharge
	NET INCOME AFTER TRANSFERS	**$0**	**$0**			
	TOTAL OPERATING BUDGET	**$1,538,605**				
	OPERATING RESERVE	**$384,651**	**$0**			

BACWA Fund Report as of November 30, 2024

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	332,398	820,754	404,372	748,780	538,171	210,609
604	LEGAL RSRV	300,000	-	-	300,000	-	300,000
605	CBC	2,038,831	2,328,408	1,133,746	3,233,493	102,742	3,130,751
	SUBTOTAL 1	*2,671,229*	*3,149,162*	*1,538,118*	*4,282,273*	*640,913*	*3,641,360*
602	BABC	*240,179*	177,000	48,207	368,972	*71,818*	297,154
606	BACC	*35,351*	*2,434*	*42,318*	(4,533)	*27,696*	(32,229)
607	BACC LEGAL RSRV	*90,000*	*30,000*	-	120,000	-	120,000
610	WOT	*259,201*	-	-	259,201	-	259,201
612	CASA Air Toxics	(41,840)	528,900	-	487,060	-	487,060
	SUBTOTAL 2	*582,891*	*738,334*	*90,525*	*1,230,700*	*99,514*	*1,131,186*
	GRAND TOTAL	**3,254,120**	**3,887,496**	**1,628,643**	**5,512,973**	**740,427**	**4,772,546**

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	332,398	820,754	404,372	748,780	(199,245)	23,851	573,386	-	573,386	23%	-		priority # 3 for allocation
604	LEGAL RSRV	300,000	-	-	300,000	-	-	300,000	-	300,000	12%	-		priority # 1 for allocation
605	CBC	2,038,831	2,328,408	1,133,746	3,233,493	(235,059)	-	2,998,434	1,545,647	1,452,787	59%	-		priority # 4 for allocation
	SUBTOTAL 1	2,671,229	3,149,162	1,538,118	4,282,273	(434,304)	23,851	3,871,820	1,545,647	2,326,173	95%	-		
602	BABC	240,179	177,000	48,207	368,972	(46,900)	-	322,072	322,072	-	0%	-		pass-through funds, no allocation
606	BACC	35,351	2,434	42,318	(4,533)	-	-	(4,533)	(4,533)	-	0%	-		
607	BACC LEGAL RSRV	90,000	30,000	-	120,000	-	-	120,000	-	120,000	5%	-		priority # 2 for allocation
610	WOT	259,201	-	-	259,201	-	-	259,201	259,201	-	0%	-		pass-through funds, no allocation
612	CASA Air Toxics	(41,840)	528,900	-	487,060	(165,360)	-	321,700	321,700	-	0%	-		pass-through funds, no allocation
	SUBTOTAL 2	582,891	738,334	90,525	1,230,700	(212,260)	-	1,018,440	898,440	120,000	5%	-		
	GRAND TOTAL	**3,254,120**	**3,887,496**	**1,628,643**	**5,512,973**	**(646,564)**	**23,851**	**4,890,260**	**2,444,087**	**2,446,173**	**100%**			
							-	-	-		-			

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

Reconciliation to Trial Balance

Per Report above:	
General	3,149,162
WOT, BABC, & BACC	738,334
PROP	-
subtotal	**3,887,496**

STB	14930	2,446,173	
STB	15050	2,444,087	
		4,890,260	-
STB	16300	646,564	
STB	21350	(23,851)	
		5,512,973	-

Trial Balance Revenue Accounts

40100	Interest	(101,560)
40101	Mem Contrib	(1,942,472)
40102	Transfer	(30,000)
40103	Assoc Contrib	(188,897)
40104	Other	(1,624,567)
47310	State Grant	-
47320	Grant Retention	-
subtotal		**(3,887,496)**
Difference		**-**

BACWA Revenue Report as of November 30, 2024

Cost Center Code	Cost Center Description	Program Segment Description	Program Segment Value	Amended Budget	Current Period	FY24 - Year to Date	Unobligated
600	Bay Area Clean Water Agencies	BABC - AED and RPM Support	6200	(6,000.00)	-	-	6,000.00
		BACC - AED Support	6199	(39,522.00)	-	-	39,522.00
		BDO Affil/CS/Assoc Dues	6104	-	-	(40,782.00)	(40,782.00)
		BDO Affiliate/Associate Dues	6103	-	-	(47,553.00)	(47,553.00)
		BDO Assoc.&Affiliate Contr	6102	(195,780.00)	-	(100,562.00)	95,218.00
		BDO Fund Transfers	6141	(1,000.00)	-	-	1,000.00
		BDO Member Contributions	6101	(553,929.00)	-	(553,930.00)	(1.00)
		BDO Non-Member Contr AIR	6136	(7,582.00)	-	(1,421.00)	6,161.00
		BDO Non-Member Contr BAPPG	6135	(4,264.00)	-	(10,424.00)	(6,160.00)
		BDO Other Receipts	6105	-	-	-	-
		BDO Other Receipts (Misc)	6140	-	-	(2,732.00)	(2,732.00)
		BDO- Interest Income from LAIF	6142	(80,000.00)	(13,134.32)	(63,350.18)	16,649.82
		BDO-Alternative Investment Inc	6143	-	-	-	-
600 Total				**(888,077.00)**	**(13,134.32)**	**(820,754.18)**	**67,322.82**
602	Bay Area Biosolids Coalition	BDO Fund Transfers	6141	-	-	-	-
		BDO Member Contributions	6101	-	-	(177,000.00)	(177,000.00)
602 Total				**-**	**-**	**(177,000.00)**	**(177,000.00)**
605	Clean Bay Collaborative	BDO Fund Transfers	6141	-	-	-	-
		BDO Member Contributions	6101	(675,000.00)	-	(682,642.00)	(7,642.00)
		BDO Other Receipts	6105	(1,600,000.00)	-	(1,609,990.00)	(9,990.00)
		BDO- Interest Income from LAIF	6142	-	-	(35,775.62)	(35,775.62)
605 Total				**(2,275,000.00)**	**-**	**(2,328,407.62)**	**(53,407.62)**
606	Bay Area Chemical Consortium	BDO Member Contributions	6101	-	-	-	-
		BDO- Interest Income from LAIF	6142	-	-	(2,433.95)	(2,433.95)
606 Total				**-**	**-**	**(2,433.95)**	**(2,433.95)**
607	BACC Legal RSRV	BDO Fund Transfers	6141	-	-	(30,000.00)	(30,000.00)
607 Total				**-**	**-**	**(30,000.00)**	**(30,000.00)**
612	CASA Air Toxics	BDO Member Contributions	6101	(600,000.00)	-	(528,900.00)	71,100.00
612 Total				**(600,000.00)**	**-**	**(528,900.00)**	**71,100.00**
Grand Total				**(3,763,077.00)**	**(13,134.32)**	**(3,887,495.75)**	**(124,418.75)**

BACWA Treasurer's Report Expenses and Encumbrances

Period Covering July 1, 2024 through November 30, 2024

Cost Center Code	Program Segment Description	Program Segment Value	Amended Budget	Obligated Fiscal Year to Date	Unobligated
600	AIR-Air Issues&Regulation Grp	6153	76,000.00	75,562.45	437.55
	AS-Assistant Executive Directo	6175	94,417.00	94,417.00	-
	AS-Audit Services	6180	5,672.00	-	5,672.00
	AS-BACWA Admin Expense	6173	4,059.00	99.21	3,959.79
	AS-EBMUD Financial Services	6176	43,297.00	43,297.00	-
	AS-Executive Director	6174	224,230.00	224,230.00	-
	AS-Insurance	6177	10,753.00	8,465.67	2,287.33
	AS-Regulatory Program Manager	6179	156,136.00	156,136.00	-
	Administrative Support	6178	-	-	-
	BACWA Value of Wastewater Communication	6211	40,000.00	23,037.98	16,962.02
	BC-BAPPG	6152	170,560.00	156,110.18	14,449.82
	BC-Collections System	6144	15,500.00	50,000.00	(34,500.00)
	BC-Laboratory Committee	6149	500.00	1,218.75	(718.75)
	BC-Manager's Roundtable	6154	1,000.00	-	1,000.00
	BC-Miscellaneous Committee Sup	6150	45,000.00	10,695.00	34,305.00
	BC-Permit Committee	6145	500.00	-	500.00
	BC-Pretreatment Committee	6151	500.00	-	500.00
	BC-Water Recycling Committee	6146	500.00	-	500.00
	CAR-BACWA File Storage	6165	1,623.00	-	1,623.00
	CAR-BACWA IT Software	6167	1,894.00	350.29	1,543.71
	CAR-BACWA IT Support	6166	2,814.00	-	2,814.00
	CAR-BACWA Website Dev/Maint	6163	743.00	179.64	563.36
	CAR-BACWA Website Hosting	6164	812.00	-	812.00
	CAS-Arleen Navaret Award	6160	2,500.00	-	2,500.00
	CAS-BayCAN	6204	5,000.00	-	5,000.00
	CAS-Misc Collaborative Sup	6162	1,500.00	4,000.00	(2,500.00)
	CAS-PSSEP	6157	-	-	
	CAS-Stanford ERC	6159	-	-	-
	GBS-Meeting Support-Annual	6170	14,369.00	1,900.00	12,469.00
	GBS-Meeting Support-Exec Bd	6169	3,500.00	1,318.12	2,181.88
	GBS-Meeting Support-Misc	6172	10,000.00	3,575.20	6,424.80
	GBS-Meeting Support-Pardee	6171	6,801.00	2,158.51	4,642.49
	LS-Executive Board Support	6156	2,403.00	127.50	2,275.50
	LS-Regulatory Support	6155	50,000.00	85,052.00	(35,052.00)
	O&M Committee	6148	1,500.00	412.80	1,087.20
	WQA-CE-Nature Based Solutions	6196	-	-	-
	Write-Off Doubtful Accounts	6208	-	200.00	(200.00)
600 Total			**994,083.00**	**942,543.30**	**51,539.70**
602	AS-Assistant Executive Directo	6175	39,522.00	-	39,522.00
	AS-Regulatory Program Manager	6179	-	-	-
	Academia Research & Development	6203	-	-	-
	Administrative Support	6178	-	-	-
	BDO Contract Expenses	6186	-	-	-
	Collateral Development	6197	-	-	-
	Program Manager Expense	6202	-	120,024.89	(120,024.89)
	Technology Research & Development	6206	-	-	-
602 Total			**39,522.00**	**120,024.89**	**(80,502.89)**
605	Recycled Water Evaluation	6198	100,000.00	-	100,000.00
	WQA - CEC Investigations	6201	10,000.00	-	10,000.00
	WQA-CE Addl Work Under Permit	6191	100,000.00	39,450.00	60,550.00
	WQA-CE Risk Reduction	6190	12,500.00	-	12,500.00
	WQA-CE Voluntary Nutr Contrib	6193	-	-	-
	WQA-CE-Nature Based Solutions	6196	-	47,037.63	(47,037.63)
	WQA-CE-Nutrient WS Permit Comm	6188	2,200,000.00	1,100,000.00	1,100,000.00
	WQA-CE-Technical Support	6181	100,000.00	-	100,000.00
	WQA-NMSReviewer	6205	50,000.00	50,000.00	-
605 Total			**2,572,500.00**	**1,236,487.63**	**1,336,012.37**
606	AS-BACWA Admin Expense	6173	-	-	-
	Administrative Support	6178	-	40,013.70	(40,013.70)
	BDO Fund Transfers	6141	-	30,000.00	(30,000.00)
	GBS-Meeting Support-Misc	6172	-	-	-
606 Total			**-**	**70,013.70**	**(70,013.70)**
610	Administrative Support	6178	-	-	-
	BC-BAPPG	6152	-	-	-
	BDO Contract Expenses	6186	-	-	
	Bruce Wolf Scholarship	6210	4,000.00	-	4,000.00
610 Total			**4,000.00**	**-**	**4,000.00**
612	Passthrough to CASA for air toxics	6212	500,000.00	-	500,000.00
612 Total			**500,000.00**	**-**	**500,000.00**
Grand Total			**4,110,105.00**	**2,369,069.52**	**1,741,035.48**

BACWA EXECUTIVE BOARD ACTION REQUEST

AGENDA NO.: 3

MEETING DATE: January 17, 2025

TITLE: Request for BACWA 3rd Watershed Permit funding commitment - second installment of $1,100,000

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

RECOMMENDED ACTION

Authorize second installment of payment in the amount of $1,100,000 to San Francisco Estuary Institute (SFEI) to comply with the provisions of the 3rd Watershed Permit for FY25.

SUMMARY

The Watershed Permit for Nutrients from Municipal Wastewater Dischargers to San Francisco Bay, NPDES Permit No. CA 0038873 adopted July 10, 2024, 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 permit year basis and began October 1, 2024. 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. 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.

The current requested authorization of $1,100,000 to SFEI will meet second half the obligation for the first 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 was to ensure continuity in the Science Program in FY23.

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 FY25 Budget, approved on April 19, 2024.

ALTERNATIVES

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

Attachments: SFEI Invoice.

Approved: _____ Date: January 17, 2025

Jackie Zipkin, Chair,
BACWA Executive Board

Invoice

San Francisco Estuary Institute
4911 Central Ave.
Richmond, CA 94804
EIN 94-2951373

December 10, 2024
Project No: 1092.25
Invoice No: 1092252

Bay Area Clean Water Agency
PO Box 24055, MS702
Oakland, CA 94623

Project 1092.25 SF Bay Nutrient Strategy Support FY2025
Attn:Lorien Fono

Professional Services from July 01, 2024 to June 30, 2025

Fee	**$1,100,000.00**
Total this Invoice	**$1,100,000.00**

Contact Meredith Lofthouse at 510-746-7357 or contracts@sfei.org for questions.

BACWA Communications Plan

January 2025

DRAFT

Background

The Bay Area Clean Water Agencies (BACWA) is a joint powers agency formed by the five largest wastewater treatment agencies in the San Francisco Bay Area. Our members include the many municipalities and special districts that provide sanitary sewer services to more than 7 million people. As identified in our strategic plan, BACWA's mission is to provide an effective regional voice for clean water agencies' stewardship of the San Francisco Bay's ecological, community, and economic resources. Prior to 2022, that voice was largely directed toward regulators and other professional partners within the clean water field, such as scientific institutions and NGOs. The only form of direct public outreach in which BACWA has historically engaged pertained to pollution prevention, and was conducted via the Bay Area Pollution Prevention Group (BAPPG), a committee of BACWA.

In 2022, a harmful algal bloom in the San Francisco Bay brought unexpected media attention to the region's clean water community. Following this event, the BACWA Executive Board gave direction to BACWA staff to launch a communication initiative by which we can collectively convey messaging to the public about the value of wastewater. BACWA issued an RFP, and after a competitive solicitation, brought on a consultant team in 2023 to assist BACWA's public messaging efforts. The consultant team has assisted BACWA in conducting media outreach with respect to nutrients, developing materials regarding the link between harmful algal blooms and nutrients, and refreshing Baywise.org, BACWA's public-facing website, including the addition of content on the value of clean water infrastructure.

Statement of Purpose

BACWA's public outreach messaging contains the following major themes:

- *Basic information about wastewater treatment* - In the Bay Area, wastewater travels through a collection system, is cleaned at a wastewater treatment plant, then flows to a local waterway (creek, river, bay, or ocean), or is recycled
- *Environmental stewardship* - We provide a reliable service to our communities that protects public health and the environment
- *Centrality of clean water in a circular economy* - Besides conveying and treating wastewater, we perform other services such as creating renewable energy, protecting air quality, responsibly managing carbon to mitigate climate change, and protecting water resources in the communities in which we operate
- *Science-based decision making* - We are scientific experts. Examples:
    - We have been funding and are partners in a regional science program aimed at understanding impacts of nutrients in San Francisco Bay

  - We have been funding and are partners in long-term efforts to monitor water quality in San Francisco Bay
  - We are using this science to actively plan and implement new projects to protect the Bay
  - We participate in innovative projects to monitor COVID and other infectious diseases in wastewater
  - We are proactive in addressing source control for compounds of emerging concern such as microplastics and PFAS
- *Resilience* - We are resilient in the face of multiple regional challenges. We understand the multiple hazards posed by climate change and are working to adapt to them
- *Employment.* Working in the wastewater sector can be a valuable and rewarding career. Scientists, engineers, operators, maintenance staff and other professionals perform technical work that is essential for public health and safety.

BACWA Committees Responsible for Communication

Public outreach responsibilities are broadly split between BAPPG, which has conducted public outreach on pollution prevention for many years, and BACWA's new Communications Steering Committee, as described below.

Table 1 below provides a summary of the differences between the two groups.

Bay Area Pollution Prevention Group

The Bay Area Pollution Prevention Group (BAPPG) is a long-standing committee whose task is regional coordination on pollution prevention. BAPPG meets bi-monthly and is led by a Steering Committee that meets monthly to craft meeting agendas and guide consultant teams working on pesticides, public outreach, and professional outreach. This work helps fulfill members' NPDES permit requirements to perform pollution prevention for specific pollutants, which smaller agencies may not have the resources to carry out individually. BAPPG originated and runs the public-facing website Baywise.org as a landing site for its pollution prevention messaging.

BAPPG participants come from diverse backgrounds: pollution prevention, pretreatment, public education, outreach. This diversity of expertise ensures that messaging both reflects the needs of wastewater treatment practitioners, and is crafted with the expertise of public affairs and communications professionals. BAPPG members also include Regional Water Board staff as well as staff from agencies outside of SF Bay Region 2 whose interests align with BAPPG's work.

All BAPPG members are welcome at all BAPPG events, including the steering committee. The BACWA Executive Board approves BAPPG's annual budget and is kept apprised of BAPPG activities, but does not approve individual outreach campaigns.

Communications Steering Committee

The Communications Steering Committee was formed as an ad-hoc group to provide feedback and direct work by a communications consultant on efforts pertaining to the value of wastewater. Since 2023, it has met on an as-needed basis, and has been led by BACWA's Executive Director. One of the

goals of this Communication Plan is to formalize the Communications Steering Committee as part of ongoing BACWA operations.

Moving forward, the Communications Steering Committee will meet a minimum of two times per year:

- One meeting in the summer to review work from the previous fiscal year and give the communications consultant team direction at the beginning of the fiscal year.
- One meeting in the winter to scope out the work for the next fiscal year and request budget from the BACWA Executive Board.

For the present, BACWA's Executive Director will continue to lead the Communications Steering Committee, and the Board may provide general direction on communications activities via the Executive Director. Members of the BACWA Executive Board who are interested in giving detailed feedback on messaging products are welcome to participate in the Communications Steering Committee.

The Communications Steering Committee is differentiated from BAPPG in that its work does not fulfill an NPDES permit requirement and does not include Regional Water Board staff. Although work related to pollution prevention will be deferred to BAAPG, it is anticipated that there may be some overlap in the purview of the two groups, for example with respect to PFAS messaging. In such cases, the two groups will coordinate to ensure the work being performed is not duplicative nor conflicting.

The Communications Steering Committee will take the lead in developing content for the Baywise.org website that is not directly related to pollution prevention, such as the value of wastewater infrastructure, nutrients, climate resilience, career opportunities, and other topics as they arise.

Like BAPPG, all BACWA members are welcome to participate. The Communications Steering Committee will benefit from a combination of wastewater practitioners and agency communications professionals.

Table 1. Summary of differences between BAPPG and Communication Steering Committee

	BAPPG	Communication Steering Committee
Purview	Regulatory, professional, and public outreach on Pollution Prevention	Develops Value of Wastewater messaging and other topics outside of pollution prevention
Committee Status	Regular BACWA Committee	For now, a special ad hoc group but may become Committee in the future
Leadership	Chair/Vice Chair and BAPPG Steering Committee	BACWA Executive Director
Membership	BACWA members, R2 staff, POTW members outside Bay Area	BACWA members
Participation	Wastewater practitioners and communications professionals	Wastewater practitioners and communications professionals
Regulatory Role	Fulfills NPDES requirement on behalf of members	Does not directly fulfil an NPDES requirement
Board Executive Board Oversight	Board approves budget request and is kept apprised of committee activities	Board approves budget request and provides general feedback on communications direction via the Executive Director

Future evolution of BACWA Communications

As the value of wastewater messaging and the work of the Communications Steering Committee is a new initiative for BACWA it is anticipated that this Communication Plan will be updated as needed to reflect lessons learned. In the future, as the program matures, the BACWA Board may consider incorporating the Communication Steering Committee as a formal BACWA committee with a rotating chair and vice chair who will lead communication efforts moving forward, and deemphasizing the leadership role of BACWA staff.

MEMO

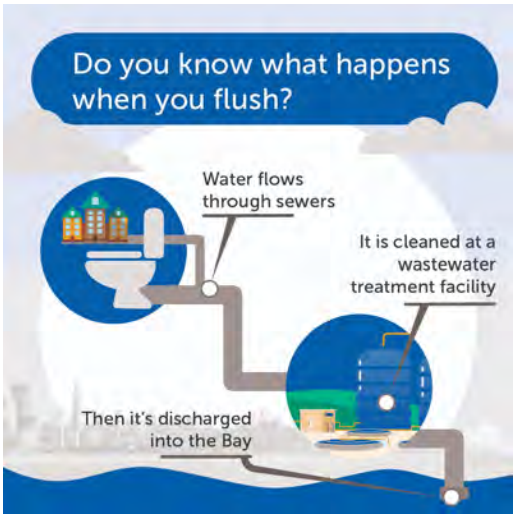
To: BACWA
From: Civic Edge Consulting
Date: Dec 2024

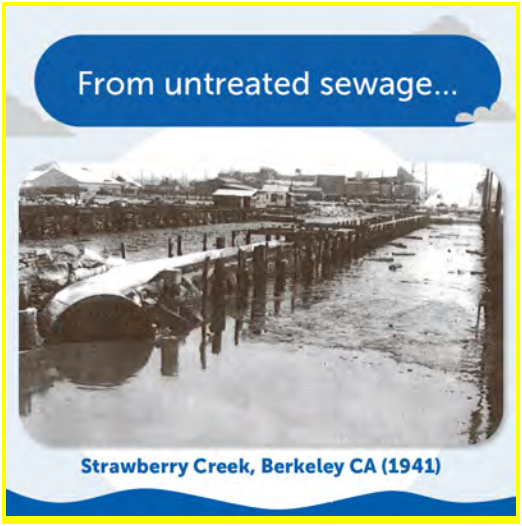
RE: Social Media Posts for Clean Water Agencies

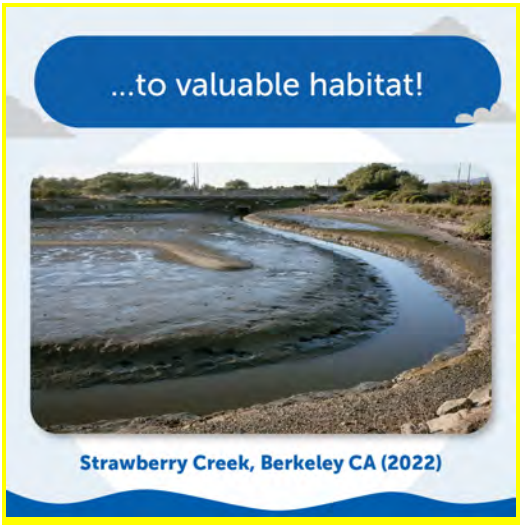
Algal Bloom / Nutrients Social Media Posts

The following social media posts are intended to support BACWA member agencies in sharing algal bloom and nutrient messaging with their followers.

The graphics are designed for "carousel" posts meaning users will swipe through to see multiple images. Each post is designed to stand alone but could be posted as a series over the course of a week or two.

Graphic	Post
	**Intro / Overview** Do you know what happens when you flush? When you flush a toilet, wash dishes, or take a shower, that water flows through sewers to a wastewater treatment facility like ours where it is cleaned before being discharged into the Bay. [our org] is one of over 40 clean water agencies across the Bay Area operating 16,000 miles of sewers that collect and clean billions of gallons of water per year! Check out baywise.org to learn more about how clean water agencies in the Bay Area are on the front lines

Graphic	Post
	of environmental stewardship of the San Francisco Bay.
PDF 	**Why it Matters** Clean water infrastructure including sewage pipes, pumps, wastewater treatment facilities, and all the people who work to support these systems is the foundation of the modern city we know today. Without this essential service, raw sewage from all of our homes and businesses would flow into our waterways and the Bay, polluting this vital natural resource and resulting in unlivable conditions for all of us. [Org name] and more than 40 other Bay Area Clean Water Agencies are on the front lines of keeping our communities safe and the San Francisco Bay clean and healthy. Learn more about how clean water infrastructure works in the Bay Area and how you can do your part to keep the Bay healthy at baywise.org

Graphic	Post
 OR 	

Graphic	Post
	
 	**Nutrients in the Bay** Nutrients are elements, like phosphorus and nitrogen, in a body of water. In large quantities they can cause excessive algal growth which depletes oxygen in the water and can cause harm to aquatic organisms. Nutrients end up in our Bay Area waterways from stormwater and industry, runoff from agriculture, and from wastewater from the millions of households around the Bay Area. Even though wastewater treatment facilities meet robust, science-based standards for treatment, discharged wastewater still contains some amount of nutrients – mainly from human urine. Approximately 2/3 of the nutrients that are added to the San Francisco Bay come from wastewater created by the community – people living and working around the Bay. The other 1/3 comes from the Sacramento River Delta and stormwater runoff. Historically “normal” levels of nitrogen in treated wastewater may now be too much for the Bay’s ecosystem leading to algal blooms. Bay Area Clean Water Agencies are taking action to address this. Learn more at baywise.org

Graphic	Post
	
 	**Climate Change/Nutrients** Changes in our climate have widespread effects in ways you may have not considered. The San Francisco Bay's resilience to nutrients is being stressed by the changing climate which resulted in harmful algal bloom events in 2022 and 2023. Scientists don't know exactly what starts an algal bloom, but once initiated, they are fed by an abundance of nutrients. Naturally occurring nitrogen in treated wastewater provides "food" for the algal species sometimes leading to levels of growth not previously seen. Historically "normal" levels of nitrogen in treated wastewater may now be too much for the Bay's ecosystem. Bay Area Clean Water Agencies are collaborating regionally on nutrient reduction methods to make the Bay more resilient. Learn more at baywise.org.

Graphic	Post
  	**What We're Doing #1** Did you know that [org name] is one of the Bay Area wastewater treatment facilities that have enhanced nutrient removal? This means we've invested in upgrades to our facilities that remove nutrients at higher levels to enhance the quality of water discharged to the San Francisco Bay. [Enter one sentence on specifics of what agency is doing related to nutrient reduction] Where possible, our agency is pursuing innovative technologies that can have benefits like lower costs, reducing the footprint for treatment, reducing greenhouse gas emissions, or improving water quality for recycled water. Learn more at baywise.org.
	What We're Doing #2

Graphic	Post
  	For more than a decade, Bay Area Clean Water Agencies, including [org name] have been investing in scientific research to better understand the impacts of nutrients to the Bay while also developing planning tools to support reducing nutrients discharged to the Bay. [Org name] and more than 40 other Bay Area Clean Water Agencies are collaborating regionally on nutrient reduction methods to make the Bay more resilient. Additional investments are necessary to remove nutrients in a way that minimizes cost and maximizes benefits to the community. Learn more at baywise.org.

MEMO

To: BACWA
From: Civic Edge Consulting
Date: November 2024
RE: BACWA Sponsorship Opportunities

Sponsorships Opportunities

Sponsoring events could be an effective way for BACWA to raise public awareness of the agency's mission and establish positive associations with relevant causes or activities. Sponsorship would likely include signage, speaking opportunities, tabling, etc. Below are options for strategic sponsorships that align with BACWA's mission.

Environmental and Sustainability Festivals

- San Francisco Bay Day - **October 2025:** annual event that celebrates the Bay, with educational activities, volunteer events, and family-friendly fun.
- **Earth Day Events: San Francisco, Oakland, Berkeley, San Jose, Marin - April 2025:** attract individuals passionate about sustainability, making them a great venue to showcase work in water conservation, pollution prevention, and Bay health.

Bay Recreation Events

Sponsoring recreation events will expand public awareness of BACWA beyond environmentalists and drive home the importance of clean water infrastructure to the health and usage of the Bay.

- **Escape from Alcatraz - May 31, 2025**
- **San Francisco Bay Paddle Race - Winter 2025**

Technology and Innovation Events

- San Francisco Bay Area Science Festival **- Fall 2025:** multi-day event celebrating science, technology, and innovation through exhibits, lectures, hands-on workshops, and family-friendly events. The festival often includes segments on sustainability, water conservation, and climate change. Access to schools, educators, families, and science enthusiasts, while also educating the public on the importance of wastewater treatment and environmental protection.

Climate Change and Resilience Conferences

- **National Adaptation Forum (NAF) – West Coast Event:** National Adaptation Forum brings together professionals working on climate change adaptation to share strategies and solutions for building resilience to climate impacts. While it is a national event, regional events often focus on climate impacts specific to places like the Bay Area.
- **State of the Estuary Conference -**
- **North Bay Watershed Association Meeting -**

Youth and Educational Events

- **Science and Sustainability Fairs**: Sponsoring science fairs, STEM programs, or sustainability-themed events in local schools (such as those in San Francisco Unified School District or Berkeley Unified)
- **Exploratorium** or the **California Academy of Sciences** partnership.

Charity Events and Fundraisers

Supporting nonprofits who advocate for Bay health communicates BACWA is a partner not an adversary to this mission.

- **Save the Bay events**
- **SF Baykeeper events**

Cultural Events Focused on Environmental Awareness

- **San Francisco Green Film Festival:** often feature documentaries and shorts about environmental issues, including the Bay and water.

Public Transportation Signage Campaign

- **BART, SMART (Sonoma-Marin Area Rail Transit), or Caltrain educational campaign :** riff on “what happens after you flush content” and expose millions of Bay Area residents to the importance of clean water infrastructure.

BAY AREA // HEALTH

'More widespread': Toxic 'forever chemicals' now found in rural California drinking water

By **Hannah Norman**

Dec 10, 2024

Researchers have found toxic PFAS “forever chemicals” in drinking water wells dotting California’s rural farming regions, far from known contamination sources. Juana Valle’s well in San Juan Bautista, Calif. has shown potentially hazardous levels of the toxic chemicals.
Hannah Norman/KFF Health News

‘More widespread’: Toxic ‘forever chemicals’ now found in rural California drinking water 0:00 / 11:19 1x Everlit

Juana Valle never imagined she’d be scared to drink water from her tap or eat fresh eggs and walnuts when she bought her 5-acre farm in San Juan Bautista, Calif., three years ago. Escaping city life and growing her own food was a dream come true for the 52-year-old.

Then Valle began to suspect water from her well was making her sick.

“Even if everything is organic, it doesn’t matter if the water underground is not clean,” Valle said.

This year, researchers found worrisome levels of chemicals called PFAS in her well water. Exposure to PFAS, a group of thousands of compounds, has been linked to health problems including cancer, decreased response to vaccines, and low birth weight, according to a federally funded report by the National Academies of Sciences, Engineering, and Medicine. Valle worries that eating food from her farm and drinking the water, found also to contain arsenic, are to blame for health issues she’s experienced recently.

The researchers suspect the toxic chemicals could have made their way into Valle’s water through nearby agricultural operations, which may have used PFAS-laced fertilizers made from dried sludge from wastewater treatment plants, or pesticides found to contain the compounds.

Not long after she moved to her farm in San Juan Bautista, Juana Valle started feeling sick. Medical tests revealed her blood had high levels of heavy metals, especially arsenic, she says. She plans to get herself tested for PFAS soon, too.
Hannah Norman/KFF Health News

The chemicals have unexpectedly turned up in well water in rural farmland far from known contamination sites, like industrial areas, airports, and military bases. Agricultural communities already face the dangers of heavy metals and nitrates contaminating their tap water. Now researchers worry that PFAS could further harm farmworkers and communities of color disproportionately. They have called for more testing.

“It seems like it’s an even more widespread problem than we realized,” said Clare Pace, a researcher at the University of California-Berkeley who is examining possible exposure from PFAS-contaminated pesticides.

Stubborn Sludge

Concerns are mounting nationwide about PFAS contamination transferred through the common practice of spreading solid waste from sewage treatment across farm fields. Officials in Maine outlawed spreading "biosolids," as some sewage byproducts are called, on farms and other land in 2022. A study published in August found higher levels of PFAS in the blood of people in Maine who drank water from wells next to farms where biosolids were spread.

Contamination in sewage mostly comes from industrial discharges. But household sludge also contains PFAS because the chemicals are prevalent in personal care products and other commonly used items, said Sarah Alexander, executive director of the Maine Organic Farmers and Gardeners Association.

"We found that farms that were spread with sludge in the '80s are still contaminated today," Alexander said.

The first PFAS, or perfluoroalkyl and polyfluoroalkyl substances, were invented in the 1940s to prevent stains and sticking in household products. Today, PFAS chemicals are used in anything from cookware to cosmetics to some types of firefighting foam — ending up in landfills and wastewater treatment plants. Known as "forever chemicals" because they don't break down in the environment, PFAS are so toxic that in water they are measured in parts per trillion, equivalent to one drop in 20 Olympic-size swimming pools. The chemicals accumulate in the human body.

San Francisco proposes strongest-in-the-nation ban on 'forever chemicals' in firefighter clothing

On Valle's farm, her well water has PFAS concentrations eight times as high as the safety threshold the Environmental Protection Agency set this year for the PFAS chemical referred to as PFOS. It's unclear whether the new drinking water standards, which are in a five-year implementation phase, will be enforced by the incoming Trump administration.

Valle's well is one of 20 sites tested in California's San Joaquin Valley and Central Coast regions — 10 private domestic wells and 10 public water systems — in the first round of preliminary sampling by UC-Berkeley researchers and the Community Water Center, a clean-water nonprofit. They're planning community meetings to discuss the findings with residents when the results are finalized. Valle's results showed 96 parts per trillion of total PFAS in her water, including 32 ppt of PFOS — both considered potentially hazardous amounts.

Hailey Shingler, who was part of the team that conducted the water sampling, said the sites' proximity to farmland suggests agricultural operations could be a contamination source, or that the chemicals have become ubiquitous in the environment.

The EPA requires public water systems serving at least 3,300 people to test for 29 types of PFAS. But private wells are unregulated and particularly vulnerable to contamination from groundwater because they tend to be shallower and construction quality varies, Shingler said.

A Strain on the Water Supply

California already faces a drinking water crisis that disproportionately hits farmworkers and communities of color. More than 825,000 people spanning almost 400 water systems across the state don't have access to clean or reliable drinking water because of contamination from nitrates, heavy metals, and pesticides.

California's Central Valley is one of the nation's biggest agricultural producers. State data shows the EPA found PFAS contamination above the new safety threshold in public drinking water supplies in some cities there: Fresno, Lathrop, Manteca, and others.

Not long after she moved, Valle started feeling sick. Joints in her legs hurt, and there was a burning sensation. Medical tests revealed her blood had high levels of heavy metals, especially arsenic, she said. She plans to get herself tested for PFAS soon, too.

"So I stopped eating [or drinking] anything from the farm," Valle said, "and a week later my numbers went down."

After that, she got a water filter installed for her house, but the system doesn't remove PFAS, so she and her family continue to drink bottled water, she said.

Juana Valle had a water filter installed for her house, but the system doesn't remove PFAS, so she and her family continue to drink bottled water, she says. Hannah Norman/KFF Health News

In recent years, the pesticide industry has increased its use of PFAS for both active and "inert" ingredients, said David Andrews, a senior scientist of the Environmental Working Group, who analyzed pesticide ingredient registrations submitted to the EPA over the past decade as part of a recently published study.

"PFAS not only endanger agricultural workers and communities," Andrews said, "but also jeopardize downstream water sources, where pesticide runoff can contaminate drinking supplies."

California's most concentrated pesticide use is along the Central Coast, where Valle lives, and in the Central Valley, said Pace, whose research found that possible PFAS contamination from pesticides disproportionately affects communities of color.

"Our results indicate racial and ethnic disparities in potential PFAS threats to community water systems, thus raising environmental justice concerns," the paper states.

Spotty Solutions

Some treatment plants and public water systems have installed filtration systems to catch PFAS, but that can cost millions or even billions of dollars. California Gov. Gavin Newsom, a Democrat, signed laws restricting PFAS in textiles, food packaging, and cosmetics, a move the wastewater treatment industry hopes will address the problem at the source.

Yet the state, like the EPA, does not regulate PFAS in the solid waste generated by sewage treatment plants, though it does require monitoring.

In the past, biosolids were routinely sent to landfills alongside being spread on land. But in 2016, California lawmakers passed a regulation that requested operators to lower their organic waste disposal by 75% by 2025 to reduce methane emissions. That squeeze pushed facilities to repurpose more of their wastewater treatment byproducts as fertilizer, compost, and soil topper on farm fields, forests, and other sites.

Greg Kester, director of renewable resource programs at the California Association of Sanitation Agencies, said there are benefits to using biosolids as fertilizer, including improved soil health, increased crop yields, reduced irrigation needs, and carbon sequestration. "We have to look at the risk of not applying [it on farmland] as well," he said.

Almost two-thirds of the 776,000 dry metric tons of biosolids California used or disposed of last year was spread this way, most of it hauled from wealthy, populated regions like Los Angeles County and the Bay Area to the Central Valley or out of state.

Juana Valle's 5-acre farm in San Juan Bautista has a walnut orchard, towering persimmon trees, and roaming chickens.
Hannah Norman/KFF Health News

When asked if California would consider banning biosolids from agricultural use, Wendy Linck, a senior engineering geologist at California's State Water Resources Control Board, said: "I don't think that is in the future."

Average PFAS concentrations found in California's sampling of biosolids for PFAS collected by wastewater treatment plants are relatively low compared with more industrialized states like Maine, said Rashi Gupta, wastewater practice director at consulting firm Carollo Engineers.

Still, according to monitoring done in 2020 and 2022, San Francisco's two wastewater treatment facilities produced biosolid samples with total PFAS levels of more than 150 parts per billion.

Starting in 2019, the water board began testing wells — and finding high levels of PFAS — near known sites of contamination, like airports, landfills, and industry.

The agency is now testing roughly 4,000 wells statewide, including those far from known contamination sources — free of charge in disadvantaged communities, according to Dan Newton, assistant deputy director at the state water board's division of drinking water. The effort will take about two years.

Solano County — home to large pastures about an hour northeast of San Francisco — tested soil where biosolids had been applied to its fields, most of which came from the Bay Area. In preliminary results, consultants found PFAS at every location, including places where biosolids had historically not been applied. In recent years, landowners expressed reservations about the county's biosolids program, and in 2024 no farms participated in the practice, said Trey Strickland, manager of the environmental health services division.

"It was probably a 'not in my backyard' kind of thing," Strickland said. "Spread the poop somewhere else, away from us."

Los Angeles County, meanwhile, hauls much of its biosolids to Kern County or out of state. Green Acres, a farm near Bakersfield and owned by the city of Los Angeles, has applied as much as 80,000 dry tons of biosolids annually, fertilizing crops for animal feed like corn and wheat. Concerned about the environmental and health implications, for more than a decade Kern County fought the practice until the legal battle ended in 2017. At the time, Dean Florez, a former state senator, told the Los Angeles Times that "it's been a David and Goliath battle from Day One."

"We probably won't know the effects of this for many years," he added. "We do know one thing: If it was healthy and OK, L.A. would do it in L.A. County."

Hannah Norman is a video producer and visual reporter for KFF Health News, a national newsroom that produces in-depth journalism about health issues and is one of the core operating programs at KFF.

Dec 10, 2024

Hannah Norman

More For You

CALIFORNIA ASSOCIATION of SANITATION AGENCIES

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To: Demian Bulwa, demian.bulwa@sfchronicle.com;
Andy Reinhardt, Andy.Reinhardt@sfchronicle.com;
Hannah Norman, hannahn@kff.org

From: Greg Kester, Director of Renewable Resources – California Association of Sanitation Agencies (CASA), gkester@casaweb.org

The California Association of Sanitation Agencies (CASA) writes in response to the December 10, 2024 article in San Francisco Chronicle that examined the ubiquitous nature of per and polyfluoroalkyl substances (PFAS) in our environment. CASA represents the public wastewater treatment sector in California and our members provide the essential public health service of treating residential, commercial and industrial wastewater to protect the State of California's waters. CASA has been exceptionally active on all facets of per- and polyfluoroalkyl substances (PFAS) for many years.

CASA has worked collaboratively with Non-Governmental Organizations (NGO's), the California Legislature, and regulators since becoming aware of issues that PFAS pose, most notably through efforts to eliminate PFAS in a number of consumer products and other applications that exacerbate their presence in the environment. It is vital to note that drinking water and wastewater treatment facilities are involuntary receivers of PFAS ,and our members neither produce nor use PFAS as part the treatment process. We believe that the most effective and efficient approach to reducing the presence of PFAS in our environment is through source control.

Given the importance of safely recycling our biosolids, we offer a clarification on the article referenced above. We understand from discussions with our members, USEPA Region IX officials, and the Regional Water Board that biosolids have never been applied near the home highlighted in the article. Furthermore, to our knowledge, biosolids have only recently been applied in San Benito County, and even then, not near the site in question. Given the absence of biosolids application in the area, we believe the characterization of the sources suggested in the article deserves closer review.

Moreover, pursuant to investigations conducted by the State Water Board and others, typical biosolids in California have been shown to contain minimal levels of PFAS. Indeed, regulators believe PFAS from biosolids are an insignificant route of exposure, as the article's quotes from SWRCB officials illustrated. It should also be noted that recycling biosolids for land application is a critical program that helps mitigate climate change and improves soil health by sequestering carbon, avoiding the use of fossil fuel intense inorganic fertilizer, increasing crop yields, reducing the need to irrigate, and improving soil tilth. In contrast, as noted in the article, pesticides may be a significant route of introduction of PFAS to agricultural land.

If the Chronicle is interested in learning more about the wastewater treatment process or effective biosolids management practices, CASA would be happy to offer a tour of a wastewater treatment facility to illustrate the complex engineering at work to clean our water and manage our biosolids. Thank you for your consideration of these clarifications, and do not hesitate to reach out for background or specific information as it may be helpful in any future publications.

The agency obtained research from 3M in 2003 revealing that sewage sludge, the raw material for the fertilizer, carried toxic “forever chemicals.”

Listen to this article · 13:22 min Learn more

By Hiroko Tabuchi
Hiroko Tabuchi reviewed thousands of pages of decades-old documents to report this article.

Published Dec. 27, 2024 Updated Jan. 2, 2025

In early 2000, scientists at 3M, the chemicals giant, made a startling discovery: High levels of PFAS, the virtually indestructible “forever chemicals” used in nonstick pans, stain-resistant carpets and many other products were turning up in the nation’s sewage.

The researchers were concerned. The data suggested that the toxic chemicals, made by 3M, were fast becoming ubiquitous in the environment. The company’s research had already linked exposure to birth defects, cancer and more.

That sewage was being used as fertilizer on farmland nationwide, a practice encouraged by the Environmental Protection Agency. The presence of PFAS in the sewage meant those chemicals were being unwittingly spread on fields across the country.

3M didn’t publish the research, but the company did share its findings with the E.P.A. at a 2003 meeting, according to 3M documents reviewed by the The New York Times. The research and the E.P.A.’s knowledge of it has not been previously reported.

Today, the E.P.A. continues to promote sewage sludge as fertilizer and doesn’t require testing for PFAS, despite the fact that whistle-blowers, academics, state officials and the agency’s internal studies over the years have also raised contamination concerns.

“These are highly complex mixtures of chemicals,” said David Lewis, a former E.P.A. microbiologist who in the late 1990s issued early warnings of the risks in spreading sludge on farmland. The soil “becomes essentially permanently contaminated,” he said in a recent interview from his home in Georgia.

The concerns raised by Dr. Lewis and others went unheeded at the time.

The country is starting to wake up to the consequences. PFAS, which stands for per- and polyfluoroalkyl substances, has been detected in sewage sludge, on land treated with sludge fertilizer across the country, and in milk and crops produced on contaminated soil. Only one state, Maine, has started to systematically test its farms for PFAS. Maine has also banned the use of sludge on its fields.

David Lewis, a former E.P.A. microbiologist, issued early warnings. Will Crooks for The New York Times

In a statement, 3M said that the sewage study had been shared with the E.P.A., and was therefore available to anyone who searched for it in the agency's archives. The agency had sought 3M's research into the chemicals as part of an investigation in the early 2000s into their health effects.

3M also said it had invested in "state-of-the-art water treatment technologies" at its manufacturing operations. The company is on track to stop PFAS manufacturing globally by the end of 2025, it said.

The E.P.A. did not respond to detailed questions for this article, including about the 3M research. It said in an earlier statement that it "recognizes that biosolids may sometimes contain PFAS and other contaminants" and that it was working with other agencies to "better understand the scope of farms that may have applied contaminated biosolids" and to "support farmers and protect the food supply."

Farmland contamination has become a contentious environmental issue in both red and blue states.

In Oklahoma, Republican voters ousted a longtime incumbent in a state house primary in August after the lawmaker drew criticism for the use of sewage sludge fertilizer on his fields. The victor, Jim Shaw, said he planned to introduce legislation to ban sludge fertilizer across the state.

"There are other ways to dispose of excess waste from the cities," Mr. Shaw said in an email. "Contaminating our farmland, livestock, food and water sources is not an option and has to stop."

This year the E.P.A. designated two kinds of PFAS as hazardous substances under the Superfund law and mandated that water utilities reduce levels in drinking water to near zero. The agency said there is no safe level of exposure to those two chemicals. It also designated PFAS as “an urgent public health and environmental issue” in 2021 and has said it will issue a report on the risks of PFAS contamination in sludge fertilizer by the end of the year.

The decades-old research by 3M and the record of the company’s interaction with the E.P.A. were found by The Times in a cache of tens of thousands of pages of internal documents that the company released as part of settlements in the early 2000s between the federal government and 3M over health risks of the chemicals.

Reusing human waste to fertilize farmland, a practice that dates back centuries, keeps the waste from needing other ways of disposing of it, such as incineration or landfill dumping, both of which have their own environmental risks. It also reduces the need to use synthetic fertilizer made from fossil fuels.

But the problem, experts say, is that sewage today contains a host of chemicals, including PFAS, generated by businesses, factories and homes. The federal government regulates certain heavy metals and pathogens in sludge that is reused as fertilizer; it has no limits on PFAS.

“There’s absolutely enough evidence, with the high levels of contaminants that we see in the sludge, for the E.P.A. to regulate,” said Arjun K. Venkatesan, director of the Emerging Contaminants Research Laboratory at the New Jersey Institute of Technology.

A step in the process of separating sludge from wastewater at a facility in Fort Worth, Texas. Jordan Vonderhaar for The New York Times

‘It’s Insidious’

The turn of the century was a turbulent time for 3M. After decades of hiding the dangers of PFAS — a history outlined in lawsuits and peer-reviewed studies based on previously secret industry documents — in 1998 it alerted the E.P.A. about the potential hazards.

The company had already found high levels of PFAS in the blood of its employees, and was starting to detect the chemicals in the wider population. It had also long tracked PFAS in wastewater from its factories.

Then in a 2000 study, 3M researchers noticed something alarming. While testing for PFAS in cities with “no known significant industrial use” of the chemicals, including Cleveland, Tenn., and Port St. Lucie, Fla., they found surprisingly high concentrations in sewage sludge.

A question weighed on the researchers’ minds: If there were no PFAS manufacturers present, where were the chemicals coming from?

Hints lay in 3M’s other research. The company had been studying how the chemicals could be released by PFAS-treated carpets during washing. And they were also studying how PFAS could leach from food packaging and other products.

In an interview, Kris Hansen, a former chemist at 3M who was involved in the research, said the presence in sludge “meant this contamination was probably occurring at any city” that was using 3M’s products.

The study showed, moreover, that PFAS was not getting broken down at wastewater treatment plants. “It was ending up in the sludge, and that was becoming biosolids, being mixed into soil,” Dr. Hansen said. “From there it can run into the groundwater, go back into people. It’s insidious.”

In September 2003, 3M officials met with the E.P.A. to discuss the company’s study of sludge contamination and other research, according to the internal records. At the end of the meeting, the E.P.A. requested “additional background information supporting this monitoring data,” the records show.

Sewage sludge has now been spread on millions of acres across the country. It’s difficult to know exactly how much, and E.P.A. data is incomplete. The fertilizer industry says more than 2 million dry tons were used on 4.6 million acres of farmland in 2018. And it estimates that farmers have obtained permits to use sewage sludge on nearly 70 million acres, or about a fifth of all U.S. agricultural land.

“If we really wanted to figure this problem out because we believe it’s in the interest of public health, we really needed to share that data widely,” said Dr. Hansen, who has become a whistle-blower against 3M. “But my memory is that the corporation was kind of caught up in the, ‘Oh my gosh, what do we do about this?’”

Kris Hansen, a former 3M chemist who became a whistle-blower. Tim Gruber for The New York Times

Early Warning, Unheeded

Dr. Lewis was a rising star in the late 1990s as a microbiologist at the E.P.A. He discovered how dental equipment could harbor H.I.V., winning him kudos within the scientific community.

Then he turned his attention to sewage sludge.

The E.P.A. was encouraging farmers to use sludge as fertilizer. Human beings had used waste to fertilize the land for millenniums, after all. But, as Dr. Lewis pointed out with his research, modern-day sewage most likely contained a slew of chemicals, including PFAS, that made it a very dangerous fertilizer.

He collected and examined sewage samples. He investigated illnesses and deaths he said could be linked to sludge. He started presenting his findings at scientific conferences.

“The chances that serious adverse effects will occur from a complex and unpredictable mixture of tens of thousands of chemical pollutants is a virtual certainty,” he said at the time. His research prompted the Centers for Disease Control and Prevention to issue guidelines protecting workers handling processed sewage sludge.

The E.P.A. eliminated his job in 2003.

He was a prominent voice on the issue at the time, but not the only one.

Rolf Halden, a professor at the School of Sustainable Engineering at Arizona State University and an early researcher of contamination in biosolids, met with E.P.A. officials at least nine times since 2005 to warn about his own research, according to his records.

“The history of biosolids is that it was a toxic waste,” he said. For decades, he noted, sludge from New York City “was loaded on trains and shipped to the back corners of the country,” he said. Farmers often took the sludge without knowledge of its possible contamination.

In 2006, an E.P.A. contractor offered him samples of municipal sewage sludge left over from earlier agency testing. The E.P.A. had been about to throw them out.

Those samples led to a study that confirmed elevated PFAS levels in sludge nationwide. (The early research into sewage samples eventually led to wastewater testing that has helped researchers track the virus that causes Covid.)

Another researcher, Christopher Higgins, was starting his academic career in the early 2000s when he began looking at sludge. He presented his work to E.P.A. officials, he said, and was left with the impression that it wasn’t a priority. “I was really surprised by how few people were working for E.P.A. on the topic,” said Dr. Higgins, who is now a professor at the Colorado School of Mines.

Signs at a lake near Dr. Hansen’s Minnesota home warn of PFAS contamination in fish. Tim Gruber for The New York Times

Betsy Southerland, a former director of science and technology in the E.P.A. Office of Water, which oversees biosolids, said the program had been hurt by staffing shortages as well as an arduous process for setting new restrictions. Action has been slow, she said, even though E.P.A.’s surveys of sludge had shown “all kinds of pollutants — flame retardants, pharmaceuticals,

steroids, hormones," she said. "It's the most horrible story," she said.

Researchers at E.P.A. later found elevated levels of PFAS in sludge fertilizer. In its most recent survey of biosolids, the agency discovered 23 pollutants that its scientists identified as PFAS. A 2018 report by the E.P.A.'s inspector accused the agency of failing to properly regulate biosolids, saying it had "reduced staff and resources in the biosolids program over time, creating barriers."

The Biden administration has said it would publish a risk assessment of PFAS in biosolids by the end of 2024. That would be a first step toward setting limits on PFAS in sewage sludge used as fertilizer.

There is another solution, experts say. Under the Clean Water Act, wastewater treatment plants have a legal authority to limit PFAS pollution from local factories. It's known as the Clean Water Act "pretreatment program," preventing chemicals from reaching sewage in the first place.

In the past two years, two cities — Burlington, N.C., and Calhoun, Ga. — have ordered industries to clean up the effluent they send to wastewater treatment plants. In one instance, a textile producer decided to stop using PFAS entirely.

Those actions came after a local environmental group sued the cities. "Industry is in the best position to control their own pollution, rather than treating wastewater treatment plants like industrial, toxic dumping grounds," said Kelly Moser, an attorney at the Southern Environmental Law Center, which filed the lawsuits.

The National Association of Clean Water Agencies, which represents wastewater treatment plants, said more than 1,600 utilities already had pretreatment programs in place, though not necessarily for PFAS. (The group also said research showed that the chemicals were coming from household waste, including human waste, not just factories.)

Adam Krantz, the group's chief executive, said many utilities were waiting for the E.P.A. to set standards. That would strengthen treatment plants' ability to hold the ultimate polluters responsible, he said. "If these chemical companies were aware of PFAS' potential dangers and kept it quiet," he said, "then these polluters have to pay."

Hiroko Tabuchi covers pollution and the environment for The Times. She has been a journalist for more than 20 years in Tokyo and New York. More about Hiroko Tabuchi

A version of this article appears in print on , Section A, Page 1 of the New York edition with the headline: Despite Risks, E.P.A. Backs Toxic Fertilizer

Information about BAPPG's Spring 2025 Campaign on PFAS

The campaign may consist of ads and/or graphics with a slogan such as: "Learn more about Toxic PFAS," "Prevent PFAS Pollution," "Prevent Toxic PFAS Pollution," or similar. The ads will lead to a new landing page on the Baywise website.

DRAFT Baywise.Org Landing Page for PFAS - January 2025

Learn More about PFAS

What are PFAS?

Per- and Polyfluoroalkyl Substances (PFAS) are human-made compounds that are typically manufactured for their non-stick, heat-resistant, water and oil resistant properties. Since the 1930's, manufacturers have used PFAS to produce many household items, such as cookware, carpets, clothes, furniture fabrics, and food packaging. They degrade extremely slowly and remain persistent and widespread in the environment, earning the nickname 'forever chemicals.' There are thousands of different PFAS compounds. Of the many toxic PFAS compounds, two (perfluorooctanoic acid [PFOA] and perfluorooctane sulfonate [PFOS]) have been banned in the US. California has additionally banned other PFAS compounds in certain products, but many other PFAS compounds continue to be used in manufacturing in the US and imported from abroad in consumer goods.

Many PFAS are toxic to people and wildlife. To learn more about PFAS and associated health risks, see the U.S. Environmental Protection Agency's PFAS Explained website and handout.

PFAS and Bay Area Wastewater
Wastewater in the Bay Area contains low levels of PFAS, primarily from homes. PFAS also comes from office buildings, businesses, and facilities like airports, fire stations, military bases, and landfills. The sources of PFAS in wastewater in the Bay Area are still being studied, but likely sources are toilets, showers, and washing machines.

Wastewater agencies do not produce or introduce PFAS in any way. PFAS enters wastewater when people wash, rinse, or clean products containing the chemicals. The water then enters the sewer system and travels to wastewater treatment plants. Current treatment technology cannot remove PFAS from wastewater. As a result, treated wastewater discharged to local waterways like San Francisco Bay contains low levels of PFAS (Lin, 2024).

Bay Area wastewater agencies are working together to monitor and develop solutions that address this emerging contaminant through source control. For example, agencies are participating in scientific studies to identify residential and industrial sources of PFAS through cooperation with the San Francisco Bay Regional Water Quality Control Board, Bay Area Clean

Water Agencies, Department of Toxics Substances Control, and the San Francisco Estuary Institute.

How can you help prevent PFAS Pollution?
The most cost-effective and impactful way to prevent PFAS pollution is to remove PFAS from consumer products. California has already banned PFAS from several product categories, but PFAS are still found in thousands of other products that are not subject to the current product bans, like food packaging, toilet paper, paints, automobiles, sports equipment, electronics, pet care products, and cleaning products.

You can help prevent PFAS pollution! Contact your local California representative to express your support for removing PFAS from consumer products sold in California.

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Cosmetics As of January 1, 2025, the Toxic-Free Cosmetics Act of 2020 (AB 2762) and the PFAS-Free Beauty Act of 2022 (AB 2771) ban intentionally added PFAS for cosmetics sold in California.	**Textiles** As of January 1, 2025, the California Safer Clothes and Textiles Act of 2022 (AB 1817) bans intentionally added PFAS for most clothing and other textiles sold in California.	**Juvenile Products** As of July 1, 2023, intentionally added PFAS is not allowed in juvenile products sold in California, such as high chairs, strollers, and car seats (see AB-652**).**
Food Packaging The California Safer Food Packaging and Cookware Act (AB 1200) banned the sale of paper-based food packaging containing PFAS chemicals beginning in 2023.	**Menstrual Products** Starting in 2029, AB 2515 prohibits the sale of menstrual products containing PFAS in California.	**Carpets and Rugs** In 2021, the California Department of Toxic Substances Control adopted regulations for PFAS in carpets and rugs.
Textile and Leather Treatments In 2022, the California Department of Toxic Substances Control adopted regulations for PFAS in treatments for carpets, upholstery, clothing, and shoes.	**What's Next?** PFAS may still be found in many other products sold in California, including food packaging, toilet paper, paints, automobiles, sports equipment, electronics, pet care products, and cleaning products. With your support, we can work to get toxic PFAS compounds removed from these products, too!	

Buy PFAS-Free Products
Many manufacturers are now offering PFAS-free products and alternatives. As a consumer, you can avoid using products that contain PFAS, such as:

- Rain jackets – Choose products that are free of PFAS, heavy metals, PVC, and phthalate.

- Floor waxes and cleaning products – Switch to chemical-free options or avoid products with perfluorinated compounds.
- Dental floss – Choose products made with cotton and natural waxes or silk.
- Car wax/polish – Avoid using this product.
- Furniture textiles – Choose products without stain-resistant coatings.
- Cosmetics – While the transition to PFAS-free products is happening, it's safest to choose products that don't contain ingredients like Fluor, Fluoro, or PTFE.
- Non-stick cookware – Avoid using this product. Beware of products that claim to be PFOS or PFOA-free; they may contain similar substitutes. Use cast iron and stainless steel instead.
- Ski wax – Avoid using this product.

Resources

PFAS Central, an initiative from the Green Science Policy Institute, provides an extensive list of PFAS-free products, including cosmetics, household cleaners, cookware, outdoor apparel, and more.

The Environmental Working Group provides an extensive list of PFAS-free products, including links to company policies regarding these chemicals.

Center for Environmental Health - Guided by advanced science, CEH reduces exposure to toxic chemicals in our air, water, soil, food, and the products we use every day.

6.iii. PFAS Regulatory Update

for

BACWA Executive Board

January 17, 2024

BACWA
BAY AREA
CLEAN WATER
AGENCIES

USEPA Actions Related to PFAS

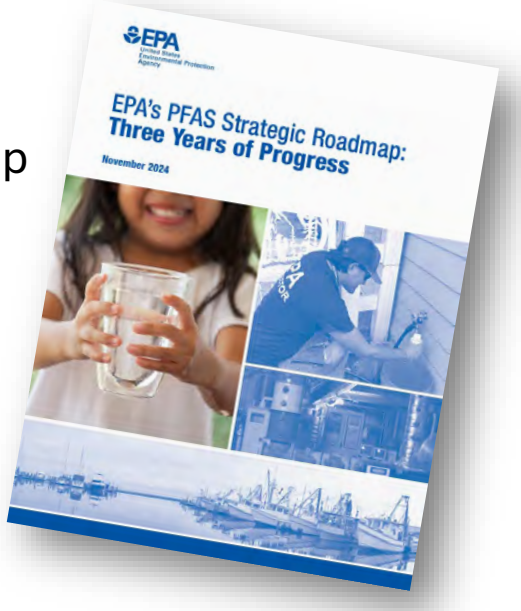
November 2024 – January 2025

Highlight of Actions Relevant to the Municipal Wastewater Sector

1. Strategic Roadmap

In November, USEPA released a new progress update on their PFAS Strategic Roadmap

https://www.epa.gov/system/files/documents/2024-11/epas-pfas-strategic-roadmap-2024_508.pdf



2. Draft Human Health Water Quality Criteria

https://www.epa.gov/wqc/human-health-water-quality-criteria-pfas

- Released in December. Public comments due February 24, 2025.
- Includes criteria for PFOA, PFOS, and PFBS
- Recommended criteria for human health protection based on fish consumption and water consumption
- "Organism Only" criteria could apply to SF Bay if adopted by California

Table 1. Draft Human Health Criteria (HHC) for Three PFAS.

PFAS	Water + Organism HHC (ng/L; ppt)[1]	Organism Only HHC (ng/L; ppt)[1]
PFOA	0.0009	0.0036
PFOS	0.06	0.07
PFBS	400	500

[1] Values are provided in ng/L units to aid in comparison to method detection limit (MDL).

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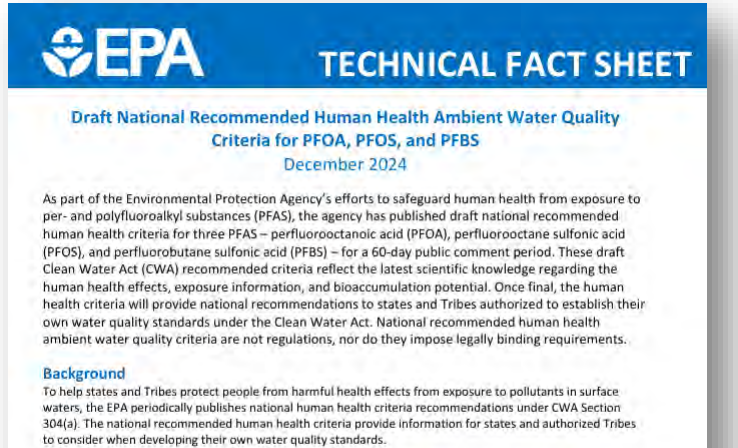

EPA TECHNICAL FACT SHEET

Draft National Recommended Human Health Ambient Water Quality Criteria for PFOA, PFOS, and PFBS

December 2024

As part of the Environmental Protection Agency's efforts to safeguard human health from exposure to per- and polyfluoroalkyl substances (PFAS), the agency has published draft national recommended human health criteria for three PFAS – perfluorooctanoic acid (PFOA), perfluorooctane sulfonic acid (PFOS), and perfluorobutane sulfonic acid (PFBS) – for a 60-day public comment period. These draft Clean Water Act (CWA) recommended criteria reflect the latest scientific knowledge regarding the human health effects, exposure information, and bioaccumulation potential. Once final, the human health criteria will provide national recommendations to states and Tribes authorized to establish their own water quality standards under the Clean Water Act. National recommended human health ambient water quality criteria are not regulations, nor do they impose legally binding requirements.

Background

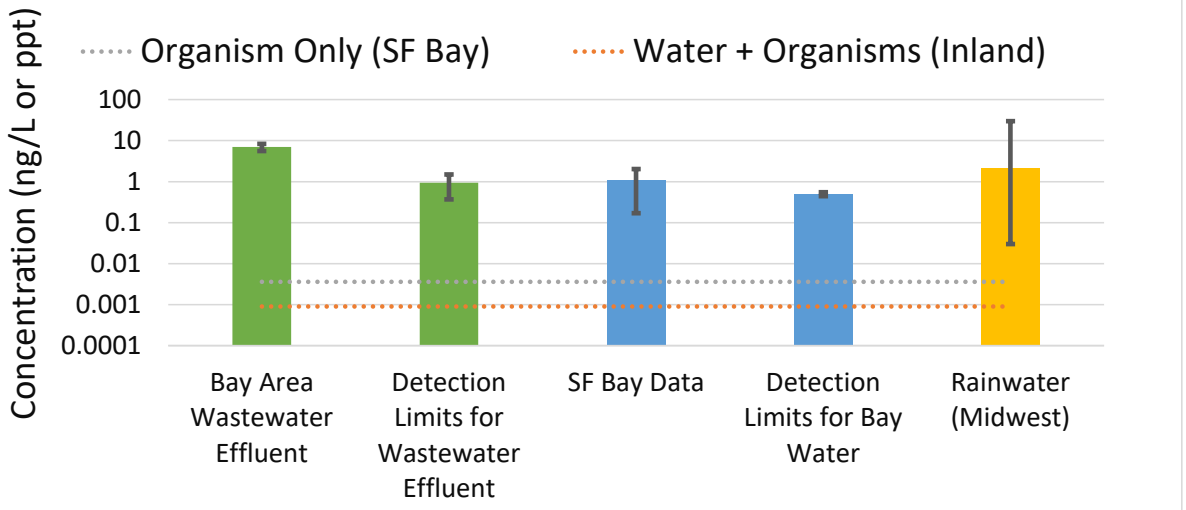
To help states and Tribes protect people from harmful health effects from exposure to pollutants in surface waters, the EPA periodically publishes national human health criteria recommendations under CWA Section 304(a). The national recommended human health criteria provide information for states and authorized Tribes to consider when developing their own water quality standards.

USEPA Actions Related to PFAS

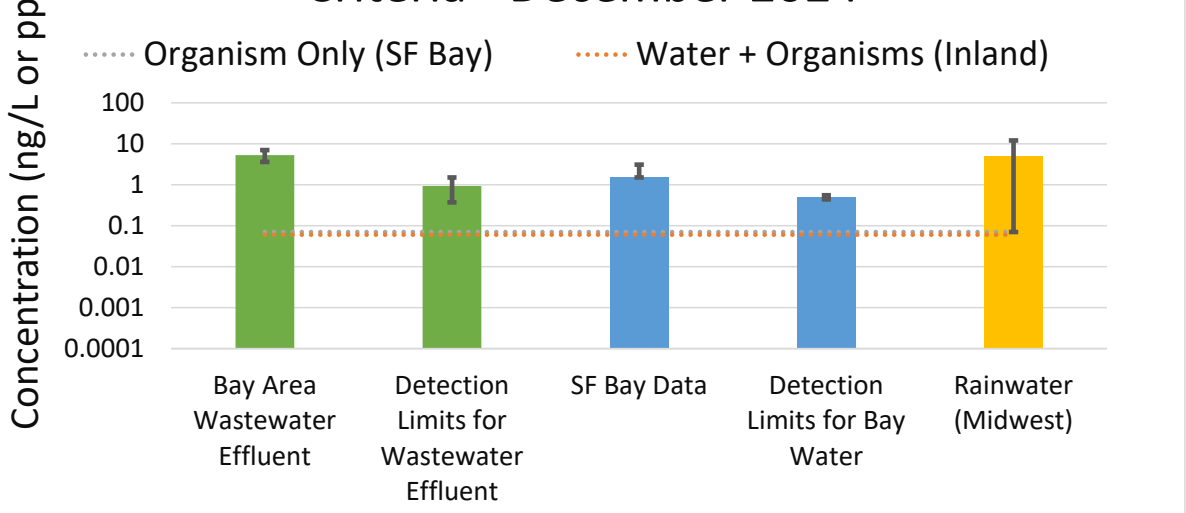
Draft criteria for PFOA and PFOS are more than 100x below observed concentrations and detection limits.

2. Draft Human Health Water Quality Criteria (continued)

PFOA



PFOS



- For comparison, drinking water MCLs are 4 ppt
- Proposed PFBS criteria are 100x higher than observed concentrations

USEPA Actions Related to PFAS

3. Draft Risk Assessment for PFOA and PFOS in Biosolids

Released on Tuesday, January 14th

Risk Assessment and FAQs at:

https://www.epa.gov/biosolids/draft-sewage-sludge-risk-assessment-perfluorooctanoic-acid-pfoa-and-perfluorooctane

This is NOT a proposed regulation or threshold.

Risk Pathways from Land Application and Surface Disposal: Drinking milk, drinking water, eating fish, eating beef and eggs.

"Based on the modeling in the draft sewage sludge risk assessment, the EPA finds that there may be human health risks exceeding the EPA's acceptable thresholds for some modeled scenarios when **land-applying** sewage sludge that contains 1 part per billion (ppb) of PFOA or PFOS. The EPA also finds that there may be human health risks associated with drinking contaminated groundwater sourced near a **surface disposal site** when sewage sludge containing 1 ppb of PFOA or sewage sludge containing 4 to 5 ppb of PFOS is disposed in an unlined or clay-lined surface disposal unit."

USEPA Actions Related to PFAS

Coming Soon – This Week?

4. **Nationwide Study of PFAS in influent and sewage sludge**
   - **Extremely likely** that all facilities with flow capacity > 10 MGD will need to fill out a detailed USEPA survey with information about your service area, facility, and industrial users
   - **Possibly** your agency will need to sample influent, effluent, domestic sewage, and up to 10 Industrial Users later in 2025, followed by sludge sampling in 2026

Track it here: https://www.epa.gov/eg/potw-influent-pfas-study

USEPA Actions Related to PFAS

5. **Methods Update Rule**
    - Proposed Methods Update Rule will promulgate two recently finalized PFAS methods as Clean Water Act Methods:
        - EPA Method 1633A (40 specific PFAS compounds)
        - EPA Method 1621 (Adsorbable Organic Fluorine, an imprecise but less expensive way of assessing total PFAS)
    - Comments Due: TBD
    - Track it here: https://www.epa.gov/cwa-methods/methods-update-rules

6. **Effluent Guidelines for Industrial Dischargers**
    - Proposed pretreatment program rules under development for categories of industrial users:
        - PFAS manufacturers
        - Metal finishers (rules expected in 2026)
        - Landfills (rules expected in 2027)

    Comments due Jan 17th.

    More info at: https://www.epa.gov/eg/preliminary-effluent-guidelines-program-plan

TECHNICAL FACT SHEET

Draft National Recommended Human Health Ambient Water Quality Criteria for PFOA, PFOS, and PFBS

December 2024

As part of the Environmental Protection Agency's efforts to safeguard human health from exposure to per- and polyfluoroalkyl substances (PFAS), the agency has published draft national recommended human health criteria for three PFAS – perfluorooctanoic acid (PFOA), perfluorooctane sulfonic acid (PFOS), and perfluorobutane sulfonic acid (PFBS) – for a 60-day public comment period. These draft Clean Water Act (CWA) recommended criteria reflect the latest scientific knowledge regarding the human health effects, exposure information, and bioaccumulation potential. Once final, the human health criteria will provide national recommendations to states and Tribes authorized to establish their own water quality standards under the Clean Water Act. National recommended human health ambient water quality criteria are not regulations, nor do they impose legally binding requirements.

Background

To help states and Tribes protect people from harmful health effects from exposure to pollutants in surface waters, the EPA periodically publishes national human health criteria recommendations under CWA Section 304(a). The national recommended human health criteria provide information for states and authorized Tribes to consider when developing their own water quality standards.

On October 18, 2021, EPA Administrator Regan announced the agency's *PFAS Strategic Roadmap*, laying out a whole-of-agency approach to addressing PFAS. This included the EPA's efforts to develop PFAS recommended human health criteria (HHC), starting with PFOA and PFOS. The EPA has released draft recommended human health criteria for PFOA, PFOS, and PFBS and will accept public comments on these criteria documents for 60 days upon announcement in the Federal Register. Following the comment period, the EPA will review the public comments and revise the criteria accordingly. The EPA will then release final criteria recommendations and responses to public comments.

What are national recommended human health water quality criteria?

People can be exposed to pollutants, such as PFAS, when drinking water and eating fish and shellfish from polluted water bodies. Under CWA Section 304(a), the EPA develops, and from time to time, updates, recommended water quality criteria for the protection of human health. States and authorized Tribes can consider the EPA's recommended criteria when setting water quality standards for their lakes, rivers, and other inland and nearshore water bodies to protect public health.

The EPA's CWA Section 304(a) HHC documents provide scientific information on the human health effects of the pollutants as well as the national recommended levels of pollutants in water (criteria), which, if not exceeded, are expected to protect against adverse effects to human health. For each contaminant, the agency has derived two HHC values: (1) the "water + organism" HHC and (2) the "organism only" HHC. The EPA develops national recommended human health criteria using a mathematical equation that includes a final toxicity factor, exposure factors (for body weight, fish consumption, and drinking water intake), bioaccumulation factors, and a relative source contribution which accounts for exposure from other potential sources (i.e., air, soils, marine fish

consumption). The equations for deriving water + organism, or organism only criteria, as well as equations for cancer and non-cancer-based HHC, can be found in the EPA's 2000 Methodology (EPA, 2000) document and in each HHC document.

What are the draft National Recommended Ambient Water Quality Criteria for the Protection of Human Health for PFOA, PFOS, and PFBS?

The draft criteria (Table 1) summarize the ambient concentrations for PFOA, PFOS, or PFBS in surface water, which, if not exceeded will protect the general population from adverse health effects due to ingesting water, fish, and shellfish from inland and nearshore water bodies. The EPA provides recommendations for "water + organism" and "organism only" criteria for states and authorized Tribes to consider when adopting human health criteria into their water quality standards. Under the CWA, states and authorized Tribes designate the uses of their water bodies and adopt criteria into their water quality standards to support those uses.

For PFOA and PFOS, the EPA developed draft recommended HHC based on the final non-cancer toxicity values (RfD) and cancer slope factors (CSF), as both chemicals are *Likely to be Carcinogenic to Humans*, based on the final human health toxicity assessments (EPA, 2024a, b). For PFOA, the EPA is recommending HHC based on the values derived using cancer inputs because they are lower than the noncancer-based HHC and thus, protect against both adverse noncancer and cancer health effects. For PFOS, the EPA is recommending the noncancer HHC because they are lower and thus, protective of both adverse noncancer and cancer health effects. For PFBS, the draft recommended human health criteria are based only on non-cancer health effects because the PFBS toxicity assessment determined that there is *Inadequate Information to Assess Carcinogenic Potential* for PFBS and no CSF was developed.

Under the EPA's recently finalized Method 1633 used for analysis of these three PFAS in aqueous samples, the limit of quantification (LOQ) representing the observed LOQs in the multi-laboratory validation study, range from 1 to 4 ng/L. The pooled Method Detection Limits (MDLs) are 0.54 ng/L (PFOA), 0.63 ng/L (PFOS), and 0.37 ng/L (PFBS). The pooled MDL values are derived from the multi-laboratory validation study using MDL data from eight laboratories and represent the sensitivity that should be achievable in a well-prepared laboratory but may not represent the actual MDL used for data reporting or data quality assessments (EPA, 2024c). The MDLs and ranges presented here are provided for comparison of analytical concentrations and draft recommended HHC.

Table 1. Draft Human Health Criteria (HHC) for Three PFAS.

PFAS	Water + Organism HHC (ng/L; ppt)[1]	Organism Only HHC (ng/L; ppt)[1]
PFOA	0.0009	0.0036
PFOS	0.06	0.07
PFBS	400	500

[1] Values are provided in ng/L units to aid in comparison to method detection limit (MDL).

Consideration of PFAS mixtures for HHC

The available scientific information shows that mixtures of PFAS can result in dose additive health effects, meaning that the combined effect of the component chemicals in a mixture is equal to the sum of the individual doses or concentrations, scaled for potency. Therefore, specific approaches based on dose-additivity are available and could be used to the develop a PFAS mixture HHC. In these draft recommended criteria, the EPA provides an illustrative example for states or Tribes interested in developing a water quality standard for a mixture of two or more PFAS for which human health criteria have been developed using the hazard index (HI)

approach. The HI approach is further described in the final *Framework for Estimating Noncancer Health Risks Associated with Mixtures of Per- and Polyfluoroalkyl Substances (PFAS)*.

Where can I find more information?

View the draft human health criteria documents for PFOA, PFOS, and PFBS, and other related information on the EPA's website at: https://www.epa.gov/wqc/human-health-water-quality-criteria-pfas
For more information on water quality criteria, visit: https://www.epa.gov/wqc
For more information on PFAS, visit: https://www.epa.gov/pfas

References

EPA. 2000. *Methodology for Deriving Ambient Water Quality Criteria for the Protection of Human Health (2000).* EPA 822-B-00-004. Available on the internet at: https://www.epa.gov/sites/default/files/2018-10/documents/methodology-wqc-protection-hh-2000.pdf.

EPA. 2024a. *Final Human Health Toxicity Assessment for Perfluorooctanoic Acid (PFOA) and Related Salts*. EPA 815R24006. Office of Water, Washington, DC. Available on the internet at: https://www.epa.gov/system/files/documents/2024-05/final-human-health-toxicity-assessment-pfoa.pdf.

EPA. 2024b. *Final Human Health Toxicity Assessment for Perfluorooctane Sulfonic Acid (PFOS) and Related Salts*. EPA 815R24007. Office of Water, Washington, DC. Available on the internet at: https://www.epa.gov/system/files/documents/2024-05/final-human-health-toxicity-assessment-pfos.pdf.

EPA. 2024c. Method 1633. Analysis of Per-and Polyfluoroalkyl Substances (PFAS) in Aqueous, Solid, Biosolids, and Tissue Samples by LC-MS/MS. EPA 821-R-24-001. Office of Water, Washington, DC. https://www.epa.gov/system/files/documents/2024-12/method-1633a-december-5-2024-508-compliant.pdf.

FACT SHEET

Draft Sewage Sludge Risk Assessment for PFOA and PFOS

January 2025

On January 14, 2025, the U.S. Environmental Protection Agency (EPA) released its Draft Sewage Sludge Risk Assessment for Perfluorooctanoic Acid (PFOA) and Perfluorooctane Sulfonic Acid (PFOS). The draft risk assessment indicates that in some scenarios, the EPA's acceptable risk thresholds may be exceeded when sewage sludge containing PFOA and PFOS is land applied for beneficial reuse or surface disposed. The draft risk assessment focuses on people living on or near impacted farms or those that rely primarily on their products. The findings presented in the draft risk assessment are preliminary. The EPA expects to publish a final risk assessment after reviewing public comments and revising the draft risk assessment accordingly. Once finalized, the risk assessment will provide information on risk from use or disposal of sewage sludge and will inform the EPA's potential future regulatory actions under the Clean Water Act (CWA). The EPA is committed to partnering with states, Tribes, territories, and wastewater treatment plants (WWTPs) to reduce risks from PFOA and PFOS that may occur through the management of sewage sludge, including the land application of sewage sludge.

What are sewage sludge and biosolids?

When sewage from households and businesses is sent to a WWTP, the liquids are separated from the solids, producing a nutrient-rich product known as "sewage sludge." The EPA typically uses the term "biosolids" to refer to treated sewage sludge that is intended to be applied to land as a soil conditioner or fertilizer. Sometimes biosolids are distributed to farms. While some states, Tribes, or counties may have additional rules around the use of biosolids, federal rules currently allow biosolids to be applied to pastures, feed crops, and crops for direct human consumption. Biosolids can also be applied to forests, tree farms, golf courses, turf farms, and other types of land. In other cases, biosolids are bagged and sold at stores to the general public and are often used on lawns or in home gardens. Not all WWTPs create biosolids for land application; some incinerate sewage sludge and others send it to a landfill. Biosolids are different from manure or industrial sludge (like pulp from a paper mill), which are also sometimes used as a soil amendment. The EPA does not regulate the land application of manure or industrial sludges in the same manner it does for biosolids.

What are PFOA and PFOS?

PFOA and PFOS are two chemicals in a large class of synthetic chemicals called per- and polyfluoroalkyl substances (PFAS). PFOA and PFOS have been widely studied, and they were once high production volume chemicals within the PFAS chemical class. PFAS have been manufactured and used by a broad range of industries since the 1940s, and there are estimated to be thousands of PFAS present in the global marketplace that are used in many consumer, commercial, and industrial products. PFOA and PFOS tend to persist in the environment for long periods of time and have been linked to a variety of adverse human health effects.[1]

PFAS manufacturers voluntarily phased out domestic manufacturing of PFOA and PFOS and the EPA restricted their use by Significant New Use Rules (SNURs) issued under the Toxic Substances Control Act (TSCA).[2] Though

[1] *see* the EPA's Final Toxicity Assessment for PFOA and Final Toxicity Assessment for PFOS

[2] *see* the EPA's Risk Management for PFAS under TSCA

concentrations of PFOA and PFOS in people's blood have lowered since the voluntary phase out, blood levels can be elevated in communities where there is significant environmental contamination and exposure. [3]

Why is the EPA concerned about the presence of PFOA and PFOS in sewage sludge?

Although domestic manufacturing of PFOA and PFOS have been phased out and their uses restricted, multiple activities still result in PFOA, PFOS, and their precursors being released to WWTPs.[4] Traditional wastewater treatment technology does not remove or destroy PFOA or PFOS, and these chemicals typically accumulate in the sewage sludge. PFOA and PFOS have strong chemical bonds, which means they do not break down on their own in the environment or in our bodies. The chemicals can move from soils to groundwater or nearby lakes or streams, and be taken up into fish, plants, and livestock. These factors combine to raise questions about the potential risks associated with the presence of PFOA or PFOS in sewage sludge that is land applied as a soil conditioner or fertilizer (on agricultural, forested, and other lands), surface disposed, or incinerated.

What are the potential sources of PFOA and PFOS in sewage sludge?

Current and historical activities include industrial releases (*e.g.*, certain types of firefighting foam, pulp and paper plants), commercial releases (*e.g.*, car washes, industrial launderers), and down-the-drain releases from homes (*e.g.*, use of consumer products like after-market water resistant sprays, ski wax, floor finishes, and laundering of stain or water-resistant textiles with PFOA or PFOS coatings). If products containing PFOA or PFOS are disposed of at a lined municipal solid waste landfill, because the most common off-site management practice for landfill leachate is to transfer it to a WWTP, then that landfill's leachate could be a source of PFOA and PFOS to a WWTP. Studies have found that PFOA and PFOS in sewage sludge even at WWTPs that only receive wastewater from residential and commercial users. At different WWTPs across the country, any of these release mechanisms may play a role in PFOA or PFOS entering the plant and contaminating the sewage sludge.

What is a sewage sludge risk assessment?

Risk assessment is a scientific process that is used to understand health risks to people, livestock, or wildlife across the country. The EPA uses sewage sludge risk assessments to help evaluate whether actions, including regulation, are needed to protect those who may experience risks from sewage sludge use or disposal. In this sewage sludge risk assessment, the EPA estimates potential human exposures and risks in modeled scenarios where sewage sludge has been land applied or surface disposed. The draft risk assessment focuses on risks to humans because available data indicate that people are much more sensitive to exposures to PFOA or PFOS than livestock or wildlife. Finally, this risk assessment does *not* assess risks to people in the general population, who often have a diversity of sources for their foods.

What does this draft sewage sludge risk assessment suggest?

The draft risk assessment focuses on those living on or near impacted sites (*e.g.,* farm families and their neighbors) or those that rely primarily on their products (*e.g.,* food crops, animal products, drinking water); the draft risk assessment does *not* model risks for the general public. Based on the modeling in the draft sewage sludge risk assessment, the EPA finds that there may be human health risks exceeding the EPA's acceptable thresholds for some modeled scenarios when land-applying sewage sludge that contains 1 part per billion (ppb) of PFOA or PFOS. The EPA also finds that there may be human health risks associated with drinking

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[3] *see* the ATSDR's Resources on PFAS Exposure in Impacted Communities

[4] *see* the EPA's Preliminary Effluent Guidelines Program Plan 16 and Multi-Industry Per- and Polyfluoroalkyl Substances (PFAS) Study – 2021 Preliminary Report

contaminated groundwater sourced near a surface disposal site when sewage sludge containing 1 ppb of PFOA or sewage sludge containing 4 to 5 ppb of PFOS is disposed in an unlined or clay-lined surface disposal unit. The EPA provides a qualitative description of the potential risks to communities living near a sewage sludge incinerator (SSI) in the draft risk assessment but does not provide quantitative risk estimates due to significant data gaps related to the extent to which incineration in an SSI destroys PFOA and PFOS and the health effects of exposure to products of incomplete combustion.

The draft risk calculations are not conservative estimates because (1) they model risk associated with sewage sludge containing 1 ppb PFOA or PFOS, which is on the low end of measured U.S. sewage sludge concentrations (2) reflect median exposure conditions (*e.g.,* 50th percentile drinking water intake rates) rather than high end exposure conditions, (3) do not take into account non-sewage sludge exposures to PFOA and PFOS (*e.g.*, consumer products, other dietary sources), (4) do not account for the combined risk of PFOA and PFOS, and (5) do not account for additional exposures from the transformation of PFOA and PFOS precursors. As such, risk estimates that account from multiple pathways, multiple sources of exposure, and multiple PFAS would be greater than presented in this draft assessment.

What does this mean for communities?

The Agency recognizes that this draft risk assessment may raise many questions, especially for those who have had biosolids applied to their farms or properties. The EPA encourages people who are concerned to learn about PFAS, including actions that may already be underway and opportunities to reduce exposure. The EPA has created answers to a list of important questions related to this announcement to help members of the public learn more.

If you are concerned about PFAS in sewage sludge, the EPA recommends you contact your state environmental agency or county government to learn about its efforts to address PFOA and PFOS, including in wastewater and sewage sludge. You may also contact your local agriculture extension program, your closest USDA Service Center, or your local wastewater utility to learn more about the biosolids applied to your property and to find out whether they have monitoring data for PFAS or can provide any specific recommendations for your community. The EPA recommends that wastewater systems that find PFOA or PFOS in their biosolids that is land applied take steps to inform the users of biosolids, undertake additional sampling to assess the level, scope, and source of contamination, and examine options for steps to limit exposure. Current science indicates that **lower levels of PFAS exposure present less risk**, so these efforts to identify and reduce PFOA and PFOS in sewage sludge help protect public health.

If you are concerned about PFAS in sewage sludge, the EPA recommends you:

- Consider contacting your state environmental agency or county government to learn about its efforts to address PFOA and PFOS, including in wastewater and sewage sludge.
  - State and regional biosolids contacts: https://www.epa.gov/biosolids/epa-regional-and-state-contacts-biosolids
  - General PFAS resources from your state: https://www.epa.gov/pfas/us-state-resources-about-pfas
- Consider contacting your local agriculture extension program or your closest USDA Service Center.
  - https://extension.org/find-cooperative-extension-in-your-state/
  - https://www.farmers.gov/working-with-us/service-center-locator
- Contact your local wastewater utility to learn more about the biosolids applied to your property and to find out whether they have monitoring data for PFAS or can provide any specific recommendations to request testing of the soil on your property.

- If you have a home drinking water well, ensure you are protecting and maintaining it: https://www.epa.gov/ground-water-and-drinking-water
- Consider testing your home drinking water well for PFOA and PFOS.
  - There is more information about testing private drinking water wells for PFAS in the EPA's factsheet for small and rural communities under the section "Information for Communities and Households Served by Privately-Owned Wells": https://www.epa.gov/system/files/documents/2024-04/pfas-npdwr_fact-sheet_monitoring_4.8.24.pdf
- Learn more about the EPA's Research on PFAS: https://www.epa.gov/chemical-research/research-and-polyfluoroalkyl-substances-pfas
- Review the EPA's Meaningful and Achievable Steps You Can Take to Reduce Your Risk: https://www.epa.gov/pfas/meaningful-and-achievable-steps-you-can-take-reduce-your-risk
- Learn more about the National Academies of Science and Medicine's Guidance on PFAS Exposure, Testing, and Clinical Follow-up: https://nap.nationalacademies.org/resource/26156/interactive/

What is the EPA doing to reduce exposure to PFOA and PFOS in sewage sludge?

The potential risks posed by PFOA, PFOS, and other PFAS demand that the EPA address the problem on many fronts using all applicable statutory authorities. The EPA continues to fund research and take actions to reduce the concentration of PFOA and PFOS discharged to wastewater treatment plants, lower the concentration of these chemicals in sewage sludge, and reduce risk from use or disposal of sewage sludge.[5] Specifically:

- The EPA has provided over twenty million dollars in research funding through the Evaluation of Pollutants in Biosolids and Research for Understanding PFAS Uptake and Bioaccumulation in Plants and Animals in Agricultural, Rural, and Tribal Communities grants.
- The EPA continues to work toward restricting industrial PFAS discharges to WWTPs using Effluent Limitations Guidelines. Current actions include:
  - Revising the Organic Chemicals, Plastics, and Synthetic Fibers Effluent Limitation Guidelines (ELGs) to address wastewater PFAS discharge from PFAS manufacturing facilities;
  - Revising the Metal Finishing and Electroplating ELGs to address wastewater discharge of PFAS from metal finishing and electroplating operations focusing on facilities using PFAS-based fume suppressants and wetting agents; and
  - Revising the Landfills ELGs to address PFAS discharges from landfill leachate.
- The EPA's upcoming Publicly Owned Treatment Works (POTW) Influent PFAS Study will also help the Agency prioritize industrial point source categories for future study and, as appropriate, ELGs.
- To better understand occurrence, the Agency has announced the next National Sewage Sludge Survey to obtain national concentration data on PFAS in sewage sludge.
- The EPA continues to track releases through Toxics Release Inventory Reporting.
- The EPA has updated the Interim Guidance on the Destruction and Disposal of PFAS and Materials Containing PFAS, which presents the state-of-the-science information on methods to remediate, dispose of, and destroy PFAS contamination.
- The Agency has published Final Ambient Water Quality Criteria for Aquatic Life for PFOA and PFOS, which can be used for WWTP effluent permitting.
- The EPA also released draft Human Health Criteria for PFOA, PFOS, and PFBS which, when finalized, can be used for WWTP effluent permitting.

[5] Learn more about PFAS and review the Agency's PFAS Strategic Roadmap: https://www.epa.gov/pfas/pfas-strategic-roadmap-epas-commitments-action-2021-2024

While the PFOA and PFOS sewage sludge risk assessment and these agency actions are underway, the EPA recommends that states monitor sewage sludge for PFAS contamination, identify likely industrial discharges and other sources of PFAS, and implement industrial pretreatment programs where appropriate. Doing so will help reduce downstream PFAS contamination and lower the concentration of PFAS in sewage sludge as described in Section C of the EPA's December 2022 memorandum entitled, "Addressing PFAS Discharges in NPDES Permits and Through the Pretreatment Program and Monitoring Programs."

Learn more about the EPA's recent actions to address PFAS in sewage sludge.

Learn more about the EPA's Draft Sewage Sludge Risk Assessment for PFOA and PFOS.

2024_12_4 Meeting Notes

Attendees: Dave Senn, Lorien Fono, Ariella Chelsky, Ian Wren, Richard Looker, Kevin Lunde, Will Geiken

Action Items

- Richard to send Dave/Team overview of thoughts on science priorities
- Will to schedule science project review meeting
- Dave to send updated Meeting Agenda for Monday 12/9
    - Please include link to planning subcommittee meeting folders
- Ian to schedule next planning subcommittee meeting on Jan 8 (9:30-12:00)
    - Please include a 20min agenda item to schedule future subcommittee meetings
    - Please include an agenda item to plan a long term contract (5-yr) with USGS for Peterson cruises

1. Meeting Agenda Review

- Meeting Agenda
- No changes to today's agenda

2. NMS PS Business

2.1 Update on USGS Peterson

- The Peterson repairs require that it be dry-docked for a couple months
- Cracks on the hull are above the waterline but sufficiently hazardous for continued operation
- Historical context:
    - The Water Mission Area (WMA) intended to shutter the Peterson program after Jim Cloern retired in 2018, but pushback led them to transfer management to the USGS CA Water Science Center (WSC), while WMA would continue to cover the costs for the captain and basic O&M. All operation/science/staff is funded by the NMS, USGS, and others
- Current Funding
    - WSC has soft-money for Peterson.
    - NMS contributed $250k for retrofitting the vessel.
    - Annually the NMS and RMP contribute $550k ($200k and $350k respectively), while USGS probably contributes ~$400k-$500k. Their actual contribution is unknown.
- The repair estimate is $250k, and a temporary patch would be $40k. WMA has agreed to pay for repairs, but it is likely the last investment they will make in the program
    - The temporary patch would potentially allow the Peterson to continue sampling in the interim. Dave to confirm with Brian
- Brian (WSC) thinks they can dry dock Nov-Jan, with the earliest possible completion on Mar 5.

- Question for the group: Should we advocate for earlier completion to be available for spring/summer bloom or push it out until later in the year?
    - Group consensus that it is best to repair as soon as possible. A nuance is that spring conditions were of high concern historically, but hopefully that data can be collected by smaller boats
    - Request that Dave follow up with Brian on the reasons for the long timeline
- In the past WSC has collected samples from a smaller boat (the Aiken). Is that a possibility for the interim?
    - Aiken can do surface level sampling and some CTD casts
    - Another vessel, the Turning Tide, could potentially cover sampling as well
    - Dave to follow up with Brian on what the alternative vessel might be
    - WSC has confirmed that they will miss Dec. samples
        - As USGS is still drawing from the NMS budget, the group recommends requesting an alternate means of data collection during the interim.
- Dave suggests getting a long term contract with the USGS put in place. The current contract expires in June 2025. The EPA funding presents a unique opportunity to set up something long term.
    - Group to discuss how best to pursue that at the Jan. meeting. Recommendation that SFEI maintains its neutral status while partners push for hardline objectives.
        - Kevin/WB is comfortable with reaching out and requests additional information prior to doing so, including current contract and related information.

2.2 Funding Status

- Page 3 of Meeting Planning Doc
- EPA Funding Discussion
    - The group requests updates on when the EPA funds will arrive
        - The most recent update is: Dana sent an email this morning (12/4) saying that she expects the funds to come at the end of Dec/beginning of Jan. That would make the 3-month award date Oct. 1, 2024
        - Generally speaking, the deadline keeps getting moved back. Luisa is trying to get the EPA to approve in January
    - Dave shared the 3 most likely scenarios for the funding (1. No EPA funds 2. Only the first 2 years of funds. 3. All 5 years of funds).
        - Scenario 2 seems the safest to plan on, which includes $6M from the EPA
- WB recommends generating the science project plans without regard for potential funding scenarios. Alternatively, it may be best to plan on spending the maximum for the first 2 years to avoid future “claw-back.”
    - Dave recommends keeping Scenario 2 in mind as the conservative scenario so that we can keep science plans in scope
    - Request that Luisa attend a meeting (smaller group or larger) for PS to receive a direct update (either at NTW or next PS meeting)

        - Questions for Luisa: Do we ask for money in the next round right away? When does the next round of applications start? Are they competitive or non-competitive?
            - The NMS has already gone through a non-competitive process. At some point around 2027 we would go through next steps to get remaining funds. That process is not completely clear at this time.
- Dave reviewed the five potential near-future NMS hires. If the NMS does not receive the full 5-year fund, all five positions cannot be hired.
    - WB/BACWA recommendation to hire program manager first and then make decisions on other hires with the program manager's guidance
    - WB recommendation to not hire a project manager at this time
    - SFEI's NMS & RMP programs are working on hiring a joint project manager and a joint science communications person
    - The three roles not hiring yet are the program manager, the environmental analyst, and the modeler.
    - Questions for the group: What type of person would best fit the program manager role? Would it be an executive assistant or another executive?
        - Due to time constraints, this was not discussed

3. Science Planning

- Reviewing the WB/BACWA meeting on 11/22
    - Question for the group: Did that meeting shift any thoughts on project types for Science Planning?
        - The general response was that it did not cause dramatic shifts.
    - Are we trying to recalculate the permit limits based on revised modeling?
        - BACWA, if we are going to go into construction, we cannot have the limits change mid-construction. The timelines for major permit changes need to match construction timelines.
        - WB is planning to have internal conversations about how limits might change/what types of science projects are looked at. Generally, the projects will be the same. The WB needs to be able to account for new information and adjust permits accordingly. There are ways that the previous calculations could be improved, and the proposed projects are designed to improve those calculations.
        - WB proposed a time limit of 3-years for new project findings to inform the next permit. Whatever vehicle is used to assign regulation (TMDLs, etc.) the projects the WB suggested are designed to create the necessary refinements in WQBELs that will define that regulation.
            - WB needs to know the science planning thoughts from NMS. Including how quickly projects can happen and what the potential costs are.
                - Currently 50-60% of plans are drafted. All will be ready for Monday
- Reviewing Priority Project Drafts (included here)

- Dave reviewed the reorganization of the project types (see flow chart). New numbering includes projects 1-15 as well as x1, x2, and x3
- General Modeling Comments: The WB would prefer to base their decisions on model output that is adequately characterizing the bloom so that they would not have to make assumptions about the DO field, as was done in the previous permit determination. In the event that such model improvements are not possible, similar but improved methodology could still be used.
    - If possible, it would be great to have a model that dynamically computes carbon through a DO field. Last time we developed a carbon field that was the net result of the 2022 bloom and did post-processing outside the model, which assumed all carbon gets consumed and subtracted that from a uniform DO field. It would be preferable to assess the carbon throughout the bloom and avoid post-processing outside the model. The model would take care of the carbon accounting, and not just DO, but there could be a direct HAB impact applied through the model. This would allow us to redo the calculation for 2022 without a uniform carbon field. So, we'd like to see how the model develops and then maybe have that accounting done dynamically.
- Project 1. Refine DO Field Assumptions:
    - WB intention is to generate more refined analyses in the future when we are modeling new WQBELs. They do not intend to adjust last-years model runs.
    - When we do new management scenarios/develop a new set of WQBELs in the future, this would include new model runs with the improved model. Assumption that model improvements would help refine permits.
    - Suggestion not to lead with this project. This would occur after model development.
    - WB sees Potential Approach 2 as the back-up to refining the model
- Project 6. Dynamic Modeling of Blooms
    - Many projects noted that, "if the model is improved, then…" Those are summarized under project 6
    - Dave emphasized that the model is improving, but there are many unknowns/new findings that will emerge along the way that will influence its output
        - The way to test the model will be to look at it as a set of scenarios
        - August 2022 is an extreme episodic event (ex: ~1/100 years), so there is a lot of uncertainty because we only have one event to test.
        - We need rigorous testing to ensure confidence in the results
        - The model cannot predict predict pre-bloom conditions and has other areas that need improvement
        - WB agrees on the importance of stress testing the model to try and be inclusive of other possible bloom scenarios (get at return frequency). It is important to stretch beyond the conditions that

lead to the 2022 event and instead characterize conditions that would lead to the 2023 and other blooms.

4. Dec 9th NTW Meeting

- Part of the meeting will be Sci Updates
- Question for the group: Do we want to discuss project-by-project, or should we dive in-depth on the model and what it needs (or another topic)?
- Suggestion to discuss what we like for the model, and what the questions to bring to the MAG/our priorities for modeling.
    - This would help inform the project sequence and help us determine how uncertainty can be characterized
- Request for a meeting agenda:
    - Current plan is to have 2 hours for technical updates and 2.5 hours for science planning
    - Suggestion to cut this science planning to approx. 1hr with first 30min to provide a roadmap for how the science planning process will go and the remaining time to discuss Dave's analysis of where the model stands now, what we could use it for, and what improvements should be made first
    - Suggestion to include previous recommendations from the MAG and then discuss what the model can/cannot do, uncertainties, etc. That could be the discussion
    - Richard will send the group a write up with WB goals for the model to inform planning

Executive Board Special Meeting Agenda

SF Bay Regional Water Board /
BACWA Executive Board Joint Meeting
February or March 2025 – Date and Venue TBD

1. **Roll Call and Introductions**
2. **Public Comment**
3. **Discussion Items – See below**

Topic	Goal	Time
A. Agency Updates	• Roundtable from BACWA and Water Board	
B. Nutrients	• Status of revising state Compliance Schedule Policy • Update on BACWA Group Annual Report • Update on BACWA Regional Planning – Scoping Plan and scheduling next meeting • Science Planning and priorities	
C. PFAS	• USEPA Draft Human Health Water Quality Criteria • USEPA Draft Biosolids Risk Assessment • Bay Area Pollution Prevention Group (BAPPG) Spring Public Outreach Campaign • "Sources to Solutions" project coordination	
D. Mercury and PCBs	• USEPA proposed Methods Update Rule to remove PCB Aroclor methods • Risk Reduction – Fish Consumption survey pilot project	
E. Recycled Water	• State Water Board's Onsite Nonpotable Reuse Regulations	
F. Other Items as time allows	• Army Corps of Engineers – SF Bay Sea Level Rise Survey • BACWA and Bay Area Biosolids Coalition Update	
G. Upcoming Events	• BACWA Annual Members Meeting, May 2nd, 2025	

4. **Adjournment**

January 13, 2025

Eileen White, Executive Officer
San Francisco Bay Regional Water Quality Control Board
1515 Clay Street, 14th Floor
Oakland, CA 94612

VIA EMAIL: Eileen.White@Waterboards.ca.gov

Subject: NPDES Permit Requirements for Receiving Water Quality Monitoring, TMDL/SSO Support, Mercury and PCBs Watershed Permit Support, and Implementation of Copper Action Plans

Dear Eileen White:

I am writing on behalf of the Bay Area Clean Water Agencies (BACWA) and its members that own and operate publicly-owned treatment works (POTWs) and that have National Pollutant Discharge Elimination System (NPDES) permits to discharge to San Francisco Bay Area waters. The NPDES permits issued to these agencies impose some requirements that are most efficiently fulfilled as a group. The purpose of this letter is to report on behalf of BACWA members that those requirements are being met, including permit provisions related to: (A) Receiving Water Quality Monitoring; (B) Support for the RMP for supplemental monitoring of constituents of emerging concern; (C) Mercury and PCBs Watershed Permit Support; (D) Cyanide Action Plan; (E) Copper Action Plan; (F) Nutrient Watershed Permit Support; and (G) Total Maximum Daily Load Support.

A. Receiving Water Quality Monitoring

Various NPDES permits require that the permittees support the Regional Monitoring Program for Water Quality in the San Francisco Estuary (RMP), administered by the San Francisco Estuary Institute (SFEI), and established by San Francisco Bay Regional Water Quality Control Board (Regional Water Board) Resolution 92-043, adopted April 15, 1992. BACWA members have and continue to fulfill this requirement by participating in and providing funding to the RMP. A letter from SFEI, dated December 30, 2024, confirming BACWA member agencies' contributions to the RMP, is attached for reference.

B. Support for Monitoring of Constituents of Emerging Concern

Individual NPDES permits as issued or as amended by Order R2-2021-0028 require POTWs to provide supplemental funding to the RMP to support additional studies for constituents of emerging concern. POTWs that made supplemental contributions to the RMP per this requirement are listed in the attached letter from SFEI dated December 30, 2024.

In addition to the special studies supported by these supplemental funds (listed below), the priorities of the RMP have been migrating away from legacy contaminants in favor of CECs. The RMP will continue to evaluate the status of legacy contaminants in all matrices, and CECs are being added based on the results of an extensive review of the RMP's Status and Trends (S&T) Program. As of 2024, the following CECs have been added to the S&T Program: PFAS (water, sediment, prey fish, sport fish, bird eggs, marine mammals), bisphenols (water, sediment), and organophosphate esters (water).

Supplemental fees fully or partially funded the following projects in 2024 (dollar amounts were budgeted for 2024):

- Tire and roadway contaminants in wet season Bay water (Year 3; $50k)
- Organophosphate esters, Bisphenols, and other plastic additives in Wastewater ($95.4k)
- PFAS Synthesis and Strategy ($107k)
- PFAS in Bay Water using the TOP Assay ($67.2k)
- Nontargeted analysis of SF Bay Fish (Year 1, $23k)

Several other RMP studies conducted in 2024 were related to CECs but were not specifically supported by supplemental funding from wastewater agencies: Stormwater CECs Monitoring and Modeling ($300k), Land Feature Datasets for Modeling CECs ($20k), and Microplastics in Stormwater Monitoring Pilot Year 1 ($78.1k). Reports on emerging and legacy contaminants published in 2024 included the following:

- Dougherty, J., et al. *Ethoxylated Surfactants in San Francisco Bay Water, Urban Stormwater Runoff, and Wastewater: Summary Report for Water Quality Managers*. SFEI Contribution No. 1202. San Francisco Estuary Institute, Richmond, CA, 2024. https://www.sfei.org/documents/ethoxylated-surfactants-san-francisco-bay-water-urban-stormwater-runoff-and-municipal
- Lin, D., et al. "Residential Wastewater as a Major Source of Per- and Polyfluoroalkyl Substances to Municipal Wastewater." *ACS EST Water*, October 12, 2024. https://doi.org/10.1021/acsestwater.4c00507
- Mahony, A., et al. *Investigation of quaternary ammonium compounds (QACs) in wastewater effluent, influent, biosolids, and environmental matrices in San Francisco Bay*. SFEI Contribution No. 1196. San Francisco Estuary Institute, Richmond, CA, 2024. https://www.sfei.org/documents/investigation-quaternary-ammonium-compounds-qacs-wastewater-effluent-influent-biosolids
- San Francisco Estuary Institute (SFEI). *The Pulse of the Bay*. San Francisco Estuary Institute: Richmond, California, 2024. SFEI Contribution No. 1219. https://www.sfei.org/documents/pulse-bay-contaminants-emerging-concern

C. Mercury and PCBs Watershed Permit Support

The Mercury and PCBs Watershed Permit (NPDES Permit CA0038849) was most recently reissued as Order R2-2022-0038 with an effective date of February 1, 2023. The Mercury and PCBs Watershed Permit requires source control and risk reduction activities by permittees.

In 2024, BACWA's Bay Area Pollution Prevention Group (BAPPG) continued to reach out to dental assistant and dental hygienist students to educate them about proper amalgam management and disposal. This campaign reached approximately 150 students and instructors through in-person visits to the following institutions:

- San José City College (two visits)
- Foothill College, Los Altos
- Santa Rosa Junior College
- College of Marin, Novato
- City College of San Francisco

The instructors have come to rely on these annual visits and have incorporated BAPPG's program into their instructional calendar. Further, this is a relevant audience for other messages, such as wipes and pharmaceutical disposal.

The BAPPG-hosted website Baywise.org was updated in 2024 and contains pollution prevention guidance for dental offices at https://baywise.org/business-resources/pollution-prevention-guidance-for-dental-offices.

The Mercury and PCBs Watershed Permit requires that permittees implement or participate in programs to reduce mercury and PCBs-related risks to humans from the consumption of San Francisco Bay and Sacramento-San Joaquin River Delta fish. In 2024, BACWA conducted planning activities for risk reduction work to be conducted during the remainder of the permit term (2025-2028). BACWA is currently exploring opportunities to fund data collection activities related to the development of subsistence fishing water quality objectives for San Francisco Bay. A draft fish consumption survey questionnaire was completed in 2024 and is available at https://www.sfei.org/projects/consumption-survey-questionnaire-san-francisco-bay-subsistence-fishers. In 2025, BACWA will coordinate with the Water Board and SFEI to provide funding for pilot testing of this survey questionnaire by community-based organizations.

RMP mercury and PCBs sampling in 2024 included ongoing monitoring in three watersheds around the region to further develop calibration data for the Watershed Dynamic Model. Six storms were monitored in this effort. Additionally, the RMP funded PCB sampling both upstream and downstream of the former General Electric Plant in two watershed tributaries to the San Leandro Bay. The two sub-watersheds have been identified as highly polluted in previous RMP sampling efforts. The RMP's Status and Trends Monitoring Program monitors mercury, PCBs, and other contaminants in sport fish on a five-year cycle. Sport fish collection was successfully completed in 2024, and the samples will be processed and analyzed in spring 2025. Data are provided in the following reports:

- Gilbreath, A.; McKee, L.; Heberger, M; and Moran, K. *Sources, Pathways, and Loadings Strategy: 2024 Update*. Regional Monitoring Program for Water Quality in San Francisco Bay, Contribution No. 1189. San Francisco Estuary Institute, Richmond, California, 2024. https://www.sfei.org/documents/rmp-sources-pathways-and-loadings-strategy-2024-update
- Cho, Y.M., et al. *Study of Historic Loading and Spatial Distribution of Polychlorinated Biphenyls (PCBs) using Passive Sampling Devices (PSDs) in the Steinberger Slough and Redwood Creek Complex in San Francisco Bay, California, USA*. SFEI Contribution No. 1223. San Francisco Estuary Institute: Richmond, CA, 2024. https://www.sfei.org/documents/study-historic-loading-and-spatial-distribution-polychlorinated-biphenyls-pcbs-using

D. Cyanide Action Plan

As part of the site-specific objective (SSO) for cyanide, NPDES dischargers are required to calculate the 3-event rolling average of total cyanide concentrations in each segment of the Bay, based on RMP data. In 2024, RMP scientists tabulated results from the cyanide sampling completed during the 2023 water cruise. The results are available in the report listed below below:

- Trinh, M. *2023 Update to Cyanide Rolling Average*. San Francisco Estuary Institute: Richmond, California, 2025. https://www.sfei.org/documents/2023-update-cyanide-rolling-average

The 2023 sample results indicate that ambient cyanide concentrations continue to be below the trigger level of 1.0 µg/L in all five segments of the Bay. The next round of sampling is scheduled for summer 2025.

E. Copper Action Plan

The copper action plan contained in many Bay Area POTW permits requires permittees to implement a plan to reduce copper discharges, conduct studies to reduce copper pollutant impact uncertainties, and implement additional measures should the three-year rolling mean in various parts of the Bay exceed site-specific concentration triggers. In 2024, RMP scientists tabulated results from the copper sampling completed during the 2023 water cruise. The results are available in the report listed below:

- Trinh, M. *2023 Update to Copper Rolling Average*. San Francisco Estuary Institute: Richmond, California, 2025. https://www.sfei.org/documents/2023-update-copper-rolling-average

Results indicate that ambient copper concentrations are below the respective trigger levels for all five segments of the Bay. The next round of sampling is scheduled for summer 2025.

The BAPPG-hosted website Baywise.org contains resources for plumbers that focus on the key messages pertaining to copper control: use of ASTM B813 flux, and other best management practices to reduce pipe corrosion. Outreach materials are available at https://baywise.org/business-resources/pollution-prevention-guidance-for-plumbers/

F. Nutrient Watershed Permit Compliance

The Regional Water Board reissued the Nutrient Watershed Permit (NPDES Permit CA0038873) in July 2024 with an effective date of October 1, 2024. On this date, the 2024 Nutrient Watershed Permit (Order R2-2024-0013) replaced the 2019 Watershed Permit (Order R2-2019-0017). Through a nutrient surcharge levied on permittees, BACWA is funding compliance with the following provisions of the 2019 and 2024 Nutrient Watershed Permits on behalf of its members:

- **Group Annual Reporting** (2019 and 2024 Nutrient Watershed Permits) – On February 1, 2024, BACWA submitted the 2023 Group Annual Report on behalf of permittees. The 2023 Group Annual Report covered the period October 2022 - September 2023 and is available online at https://bacwa.org/document/group-annual-report-2024-02-01/. The next Group Annual Report is being prepared per updated requirements in the reissued 2024 Nutrient Watershed Permit, which requires progress reports towards meeting the permit's final effluent limitations for total inorganic nitrogen. The next Group Annual Report will be submitted to the Regional Water Board by the due date of April 1, 2025.

- **Nature-Based Solutions for Nutrient Removal** (2019 Nutrient Watershed Permit only) – Final reports for Phase 1 and Phase 2 of this special study were finalized in June 2023, as required by the 2019 Permit. In 2024, Phase 3 concept designs and cost estimates were completed by SFEI and HDR for Delta Diablo, Fairfield-Suisun Sewer District, and the City of San José. This work utilized remaining funds from the two previous phases and was submitted to the Regional Water Board on September 30, 2024. Facility acceptance letters were submitted to the Water Board and are available upon request. A report featuring case studies of constructed treatment wetlands used by five BACWA member agencies was also provided to the Water Board. All phases of the work, including case studies and the Phase 3 concept designs and cost estimates completed in 2024, are available online at https://bacwa.org/document-category/2nd-watershed-permit-studies/.

- **Monitoring, Modeling, and Subembayment Studies** (2019 and 2024 Nutrient Watershed Permits) – In 2024, BACWA continued to provide financial support for monitoring, modeling and subembayment studies conducted per the San Francisco Bay Nutrient Management Strategy, which is managed by SFEI. BACWA is providing a total of $2,200,000 to SFEI in Fiscal Year 2025, as

required by the 2019 and 2024 Nutrient Watershed Permits. BACWA also submits an annual science plan on behalf of dischargers, and the science plan for Fiscal Year 2024 was submitted to the Regional Water Board in advance of the due date of February 1, 2024. Per the reissued 2024 Nutrient Watershed Permit, the next update of the science plan will be submitted to the Regional Water Board by the due date of June 1, 2025.

- **Regional Planning to Reduce Total Inorganic Nitrogen Loads** (2024 Nutrient Watershed Permit only) – The reissued 2024 Nutrient Watershed Permit requires completion of a report describing regionwide planning efforts to meet the permit's final effluent limitations. BACWA intends to complete this task on behalf of applicable member agencies (i.e., those listed in Table 4 of R2-2024-0013), beginning with completion of a scoping plan due to the Regional Water Board by July 1, 2025. BACWA has retained consulting firm HDR, Inc., to assist with preparation of the scoping plan.

G. Total Maximum Daily Load Support

Some POTW permits previously included a requirement that permittees report to the Regional Water Board any actions taken in support of Total Maximum Daily Loads (TMDLs) for 303(d) listed pollutants. Support for these efforts has been provided largely through support of the RMP.

In 2014, the RMP convened a Selenium Strategy Team and developed a Selenium Strategy in the Multi-Year Plan. The multi-year plan involves monitoring for selenium in water, clams, and sturgeon to support the North Bay selenium TMDL. Sampling for selenium was paused in 2024 for a review of the data collected through 2023. In addition, RMP funds were budgeted to find analytical partners able to analyze small tissue sample masses associated with non-lethal sampling techniques used for sampling sturgeon muscle tissue. Sampling is expected to resume in 2026.

Please contact me if you have any questions about the information contained in this letter.

Respectfully Submitted,

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

Encl: SFEI Letter regarding RMP Participation, December 30, 2024

cc: Bill Johnson, Chief, Wastewater Control and Enforcement Division, Regional Water Board
Xavier Fernandez, Chief, Planning and TMDL Division, Regional Water Board
BACWA Executive Board
Meg Herston, BACWA Permits Committee Chair

SFEI AQUATIC SCIENCE CENTER
4911 Central Ave, Richmond, CA 94804, p: (510) 746-7334, f: (510) 746-7300 www.sfei.org

December 30, 2024

Lorien Fono
Executive Director
Bay Area Clean Water Agencies
PO Box 24055, MS 702
Oakland, CA 94623

Dear Dr. Fono,

The Regional Monitoring Program for Water Quality in San Francisco Bay (RMP) is the only comprehensive environmental monitoring program to measure pollutants and trends in the Bay. The RMP, which began in 1993, is a successful partnership of scientists, government, municipalities, and industry to understand and improve the health of the Bay.

The goal of the RMP is to collect data and communicate information about water quality in the San Francisco Estuary in support of management decisions. The accomplishments of the RMP are summarized in the RMP Update and the Pulse. The Pulse was published in October 2024. Current and past Pulses can be downloaded here; RMP Updates can be found here.

In 2024, 35 wastewater treatment facilities collectively contributed the full amount of the core RMP program costs assigned to publicly owned treatment works ($1,903,741; see Table 1 for a complete list of agencies). The process used to determine the core fees for each participant group are outlined in the Program Charter: http://www.sfei.org/documents/charter-regional-monitoring-program-water-quality-san-francisco-bay.

In December 2021, the Water Board adopted Order R2-2021-0028, which requires publicly owned treatment works to provide supplemental funding to the RMP to support additional studies for constituents of emerging concern (CECs). In 2024, 35 wastewater treatment facilities made supplemental contributions to the Program under Order R2-2021-0028 and similar requirements found in reissued individual NPDES permits ($339,994 see Table 1).

Your support is essential to the RMP. Through these financial contributions, the RMP is able to conduct regional monitoring to assess the cumulative impact of multiple sources of pollutants to the Bay, including the growing number of emerging contaminants that are a concern. We thank you and your members for the support and look forward to serving you in 2025.

Sincerely,

Amy E Kleckner

Amy Kleckner
RMP Manager

Table 1

Wastewater Treatment Facilities Contributing to the RMP in 2024 in FY24

POTW Dischargers	Core RMP Fees	Supplemental Fees for CECs Studies[(1)]
American Canyon, City of	YES	YES
Benicia, City of	YES	YES
Burlingame, City of	YES	YES
Calistoga, City of	YES	YES
Central Contra Costa Sanitary District	YES	YES
Central Marin Sanitation Agency	YES	YES
Delta Diablo	YES	YES
East Bay Dischargers Authority	YES	YES
East Bay Municipal Utilities District	YES	YES
Fairfield-Suisun Sewer District	YES	YES
Las Gallinas Valley Sanitary District	YES	YES
Marin County (Tiburon), Sanitary District No. 5 of	YES	YES
Millbrae, City of	YES	YES
Mt. View Sanitary District	YES	YES
Napa Sanitation District	YES	YES
Novato Sanitary District	YES	YES
Palo Alto, City of	YES	YES
Petaluma, City of	YES	YES
Pinole/Hercules, City of	YES	YES
Rodeo Sanitary District	YES	YES
San Francisco, City and County of, San Francisco International Airport	YES	YES
San Francisco (Southeast Plant), City and County of	YES	YES
San José-Santa Clara Regional Wastewater Facility	YES	YES
San Mateo, City of	YES	YES
Sausalito - Marin City Sanitary District	YES	YES
Sewerage Agency of Southern Marin	YES	YES
Silicon Valley Clean Water	YES	YES
Sonoma Valley County Sanitary District	YES	YES
South San Francisco and San Bruno, Cities of	YES	YES
St. Helena, City of	YES	YES
Sunnyvale, City of	YES	YES
Treasure Island Development Authority	YES	YES
Vallejo Flood and Wastewater District	YES	YES
West County Agency	YES	YES
Yountville, Town of	YES	YES

(1) NPDES Permit CA0037885 (Port Costa Wastewater Treatment Plant) and NPDES CA0037427 (Paradise Cove Treatment Plant) also require supplemental funding of CECs studies, but the requested contribution in 2024 was $0 due to these agencies' small size.

FY 26 Budget Adoption Schedule

Finance Committee Meeting (Tuesday January 27th)

Draft FY 26 Budget Discussion at Board Meeting (February 21 Board Meeting)

Review of any updates to Draft Budget (March 21 Board meeting)

FY 26 Budget Adoption (April 18 Board Meeting)

Additional meetings with Finance Committee as needed

2025 BACWA Board Meetings

January 17 - SFPUC

February 21 – EBMUD Orinda

March 21 – Central San

April 18 – EBMUD Oakland

May 2nd – Annual Meeting, Brower Center, Berkeley

June 20 - SFPUC

July 18

August 15

September 19

October 9 & 10– Pardee Technical Seminar

The only alternative dates available in fall 2025 are September 15 & 16th (Monday & Tuesday).

November 21 *

December 19 *

*Combine into an early December meeting (December 5, 2025)

BAY AREA CLEAN WATER AGENCIES
ANNUAL MEETING PROGRAM
May 2, 2025
David Brower Center
Berkeley, CA

TIME	DESCRIPTION	SPEAKER
8:30am - 9:00am	**Coffee in the lobby**	
9:00 am - 9:15 am	**Welcome/Introduction**	Jackie Zipkin, BACWA Chair/ EBDA
	Year in Review	Lorien Fono, BACWA
9:15 am - 10:30 am	**Regulator Priorities**	**Moderator:**
	Bay Area Air Quality Management District	
	US Environmental Protection Agency	
	State Water Resources Control Board staff	
	San Francisco Bay Regional Water Board staff	
	Q&A	
10:30 am - 11:00 am	**Break - Coffee and snacks in the foyer**	
11:00 am - 12:00 pm	**Pollution Prevention and Source Control Panel**	**Moderator:**
	Agency update?	
	DTSC?	
	SFEI on PFAS?	
	Facilitated Discussion	
12:00 pm - 1:00 pm	**Lunch - On the terrace**	
1:00 pm - 1:10 pm	**BACWA Leadership Recognition**	**Jackie Zipkin, BACWA Chair/EBDA**
1:10 pm -2:30m	**Nutrient updates**	**Moderator:**
	Overview	Lorien Fono, BACWA
	Regional Planning	Mike Falk
	Regulatory Outlook	Richard Looker or Bill Johnson
	Science Plan Communications	Dave Senn
	Facilitated Discussion	
2:30 pm - 3:20 pm	**Climate Change and Emergency Response Panel**	**Moderator:**
3:20 pm - 3:30 pm	**Annual Meeting Wrap-Up**	**Jackie Zipkin, BACWA Chair/EBDA**
3:30 PM	**Adjourn - Social hour**	

Pretreatment Committee
Report to BACWA Board

Committee meeting on 11/20/2024
Executive Board Meeting Date: 1/17/2024
Committee Chairs: Casey Fitzgerald (San Jose), Michael Dunning (Union Sanitary District)

Committee Request for Board Action: The committee will request funding for training in FY25 or FY26.
56 attendees from 20 agencies participated remotely.

Committee Leadership – Volunteers Welcome!
If you're able to volunteer to help lead the committee, contact the current chairs or BACWA staff.

PFAS Updates - BACWA staff provided regulatory, legislative, and science updates related to PFAS:

- USEPA is planning to complete a POTW Influent PFAS Study as part of Effluent Guidelines Program Plan 15. All agencies with permitted dry weather flow > 10 MGD will be required to fill out the survey. A draft survey is now available for a preview. The survey will require information about Significant Industrial Users (SIUs) and non-SIUs that are suspected sources of PFAS. USEPA will require a subset of agencies to conduct sampling. USEPA is also working on effluent limitations guidelines for PFAS manufacturers and expects rules for metal finishers and landfills to follow (see USEPA Strategic Roadmap Progress Report, November 2024).
- California's Department of Toxic Substances Control (DTSC) continues to identify certain consumer products containing PFAS, such as carpets, rugs, and artificial turf, as priority products. Per AB 347, DTSC now has new tools for enforcement of existing product bans for textiles, juvenile products, and food packaging. A product ban for menstrual products also recently passed (AB 2515).
- USEPA may soon release draft human health criteria for fish consumption. Fish consumption criteria are likely to be the driver for PFAS effluent limitations for San Francisco Bay wastewater dischargers.
- The final report for the BACWA regional PFAS study is now posted online and has also been published in a scientific journal (link). BACWA plans to continue studying PFAS sources to wastewater as part of the larger grant-funded PFAS Sources to Solutions project. A recent UC Irvine study found that urine, showers, and laundry were the main contributions to residential loads.

Attendees discussed that direct engagement with **metal finishers** and **landfills** would be useful to understand the impact of expected USEPA rules on these industrial categories.

Electronic Reporting
USEPA's NPDES electronic reporting rule will eventually require that annual pretreatment reports be submitted electronically in tabular format (i.e., not a PDF file). Pilot testing is underway now. The State Water Board expects to roll out the reporting in California no sooner than 2026 (for 2025 reports).

Program Benchmarking
The group discussed the need to share information about one another's pretreatment programs, and discussed potential categories of information such as number of staff, number and type of industrial users, and budget. Delta Diablo staff previously compiled limited information in summer 2024; the committee will use this as a starting point. BACWA staff will solicit responses from committee members. BACWA staff also shared a link to 2023 Pretreatment Program Reports as a resource.

Training Needs
The group discussed potential training ideas. Suggestions included data handling; groundwater permitting (dewatering and/or remediation); general program implementation including mandatory vs. discretionary permits and permitting non-industrial users; traffic control during sampling; customizing your program to fit your agency's needs; and having report-outs from individual agencies on their program highlights.

Updates on Constituents of Emerging Concern (CECs)

- DTSC has issued a new rule for laundry detergents with nonylphenol ethoxylates, which could be found in specialized industries (e.g., hotels, hospitals).
- This year's Regional Monitoring Program Pulse of the Bay and Annual Meeting provide a resource on CECs for general audiences

Pretreatment Committee
Report to BACWA Board

Committee meeting on 11/20/2024
Executive Board Meeting Date: 1/17/2024
Committee Chairs: Casey Fitzgerald (San Jose), Michael Dunning (Union Sanitary District)

BACWA Updates

- BAPPG will be discussing FOG outreach to food trucks at the next meeting on Wednesday 12/4
- New resources include the Baywise website, a Baywise map of agency service area boundaries, and an org chart of Bay Area water quality agencies
- The reissued Nutrient Watershed Permit went into effect on October 1. Interim, performance-based limits apply beginning in the 2025 dry season, and final limits apply beginning in the 2035 dry season. Going forward, nitrogen loading should be considered in pretreatment program local limits analyses and rate studies.

Member Discussion

- Attendees shared that it was useful to conduct an internal program audit to be prepared for a formal compliance audit. Consulting firms are available to assist with this work, if desired.
- Central San shared that they have put in their application with CROMERR. Once the application is approved, their staff can share tips with the committee.

Announcements

Registration is now open for CWEA's P3S Conference Feb 3-5, San Jose. The Monday session will feature a panel on pretreatment compliance audits, with speakers from the BACWA pretreatment committee.

BAPPG Committee
Report to BACWA Board

Meeting Date: December 4, 2024
Executive Board Meeting Date: January 17, 2025
BAPPG Chairs: Robert Wilson (City of Santa Rosa), Autumn Ross (SFPUC)

Committee Request for Board Action: None

42 attendees participated virtually. Participants represented 25 member agencies, the Regional Water Board, and two guest speakers.

Updates on Committee Activity and Announcements

- **Regional Water Board Announcements:** Staff shared a link to slides from the Nov. 2024 Board meeting in which NapaSan was awarded the Dr. Teng-Chung Wu Pollution Prevention Award.
- **BACWA:** BACWA is preparing a communications plan and will share a draft soon. BACWA's Executive Board will hear an update on the DTSC Safer Consumer Products program at its Dec. 6th meeting (link to slides).
- **Steering Committee:** The recently completed fall outreach campaign focused on Fats, Oils, and Grease (FOG). Official statistics will be shared soon. The spring campaign will focus on PFAS.
- **Pesticides Committee:** The committee is recruiting new members from wastewater agencies, and will provide training for new volunteers. The pesticides consultant team will present at the next BAPPG meeting on January 29th.
- **CWEA** will host its next Annual P3S Conference in San Jose on February 3-5, 2025. Register here.

Green Business Programs

Susan Psara (Contra Costa County) and Brian Luu (SF Environment Department) provided information about the California Green Business Network, a 501(c)(3) organization that helps facilitate local programs. Slides are available here. The purpose of green business programs is to recognize and promote businesses that meet high environmental sustainability standards, and to facilitate relationships between businesses and government. Contra Costa County and San Francisco have dedicated staff to implement their programs. Elsewhere in the Bay Area, there are contract staff from the firm Environmental Innovations that support the programs. Find local contacts at https://greenbusinessca.org/contact/. Wastewater agencies should coordinate with their local green business program coordinator to provide information about any locally relevant wastewater policies. For example, in San Francisco there are incentives available through the Green Business program that are relevant to wastewater, such as incentives for grease trap upgrades. The statewide Green Business Network provides checklists specific to each business sector that are periodically updated, and the group discussed ways to make sure that those checklists are shared more widely and updated with the involvement of wastewater agency representatives.

FOG Disposal for Food Trucks

The group discussed the rules for proper disposal of FOG from food trucks and suggested edits to an outdated flyer. BACWA staff will prepare an updated draft for the group to review. The group discussed the following general information about food trucks and grease disposal:

- There are two different waste streams from food trucks that could contain FOG: used cooking oil and greywater. Per state code, greywater must go to a commissary or commercial kitchen, where there would typically be a grease trap. Food trucks should not discharge to stormwater system.
- Large quantities of oil (e.g., from a deep fryer) must get hauled by a certified hauler (such as Darling). A few Household Hazardous Waste (HHW) facilities around the Bay Area will collect small amounts of used cooking oil from food trucks. However, not all HHW programs will accept used cooking oil, so this is not the universal message for food trucks in the Bay Area, only in certain jurisdictions.

Next BAPPG General Meeting: January 29, 10am – 12pm, Virtual

The agenda will include an update on pesticides from BAPPG's pesticides regulatory support consultant, Stephanie Hughes.

Holiday Handout

for

BACWA Lab and Permits Committees

December 10, 2024

BACWA BAY AREA CLEAN WATER AGENCIES

1

2. Statewide Toxicity Policy Updates

a. Region 2 Implementation – Are you curious about other dischargers' chronic toxicity monitoring requirements and effluent limitations? Reference this spreadsheet for Bay Area (Region 2) dischargers, last updated December 2024 https://bacwa.box.com/s/pkyiia2rdk0dv772ovot8w0q785mpwuf

b. Statewide Implementation – On November 19th, State Water Board staff presented to the State Water Board members on implementation of the toxicity provisions.
Slides: https://bacwa.box.com/s/m16fh85ko4wf5pwpke3lyk93jxlu2x8u
Video: https://www.youtube.com/watch?v=ZyR-siKs0bw&t=5820s

Key points:
- *Ceriodaphnia* method is challenging (culture crashes, brood health etc.)
- Initiating 3 tests within a month is challenging

c. TST training - McCampbell will provide training on interpreting results at the February 11th Permits Committee meeting

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3. ELAP Updates

Is your lab moving?
ELAP staff attended the November 18th CWEA Lab Committee and verbally provided guidance that if your lab is relocating, you should contact ELAP staff to discuss individualized requirements for your agency to maintain accreditation during / after the move.

Contact info for ELAP: ELAP Main - elapca@waterboards.ca.gov

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4. Methods Update Rule (MUR)

MUR 22 was released on December 6th!

- Removes PCB Aroclors Methods (608.3 and 625)
- Adds new PCB Congeners Method 1628

Proposed Methods Update Rule 22

The EPA signed a new proposed **Methods Update Rule (MUR)**, **MUR 22**, on December 6, 2024. This action proposes to promulgate three new EPA methods into 40 CFR Part 136:

- EPA Method 1633A: an analytical method capable of measuring 40 PFAS compounds. This method was the result of a collaboration between the EPA and the Department of Defense.
- EPA Method 1621: an analytical method capable of measuring adsorbable organic fluorine.
- EPA Method 1628: an analytical method capable of measuring all 209 PCB congeners.

This action also proposes to codify analytical methods developed by Voluntary Consensus Standard Bodies (VCSB) as is consistent with the National Technology Transfer Act. These analytical methods include:

- ASTM D8421 measuring the same 40 PFAS compounds as EPA Method 1633A.
- Standard Method 4500-PAA measuring peracetic acid.
- Standard Method 4500-H2O2 measuring hydrogen peroxide.

This action also proposes to withdraw the existing EPA methods for measuring seven Aroclors (PCB mixtures). Finally, the EPA is proposing to simplify the sampling requirements for two volatile organic compounds, acrolein and acrylonitrile, and make a series of minor corrections to existing tables of approved methods.

.
Source: https://www.epa.gov/cwa-methods/methods-update-rules

ChemVal to provide an update on microbiological methods in January 2025 – stay tuned!

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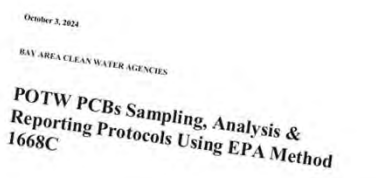
5. PCB Congener Reporting

Implementation of this guidance document from October is up to each discharger. Contract laboratories may provide a lab report with all the available data, leaving it to each discharger to finalize formatting and data entry into CIWQS.

Sample cover letter for submittal: "Results for PCBs congeners are reported according to the San Francisco Bay Regional Water Quality Control Board-approved guidance document *POTW PCBs Sampling, Analysis & Reporting Protocols Using EPA Method 1668C* (Bay Area Clean Water Agencies, October 2024). The laboratory report is included as an attachment to this submittal."

If you are having issues, please contact Mary (mcousins@bacwa.org) and Blake (bbrown@centralsan.org).


October 3, 2024

BAY AREA CLEAN WATER AGENCIES

POTW PCBs Sampling, Analysis & Reporting Protocols Using EPA Method 1668C

6

6. Triennial Review

Adoption was scheduled for December 11th but was deferred to a future date. The delay will allow the Regional Water Board to respond to two letters received from a law firm on behalf of the Ecological Rights Foundation regarding these and related issues:

- Candidate project to incorporate Clean Water Act section 304(a) criteria into the Basin Plan did not rank high enough to receive staff resources.

  See the Triennial Review Staff Report, pg. 16.
  The State Water Board survey also includes a question about Clean Water Act 304(a) criteria (see page 8)

- Basin Plan beneficial use designations for recreational and sport fishing

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7. Nutrient Watershed Permit

- Preparation of the **Group Annual Report** for 2024-2025 is underway. HDR will contact individual agencies to confirm data compilation. Edits will be due **Jan 10th**.

- **Support for Implementation of Special Provisions:**
  HDR will continue to support BACWA for the 2024 Nutrient Watershed Permit with:
  - Group Annual Reporting due each April 1st.
  - Compliance Schedule Milestone Reporting due each April 1st
  - Scoping Plan for Regional Planning Effort due July 1, 2025
  - Regional Dashboard? (Optional task)

- **Statewide Compliance Schedule Amendment** – Regional Water Board is working internally on this task and there is no update to share. Draft materials related to a hypothetical schedule for project implementation is in the BACWA Board Packet. These materials are to demonstrate why more than 10 years is needed for compliance.

- **Science Planning** for 2025-2029 is underway. BACWA is meeting frequently with the SFEI science team and Regional Water Board to discuss the science work plan and management questions. BACWA is advocating for an approach that recognizes long planning horizons to facilitate capital planning.

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8. State Water Board Survey on Statewide Policies

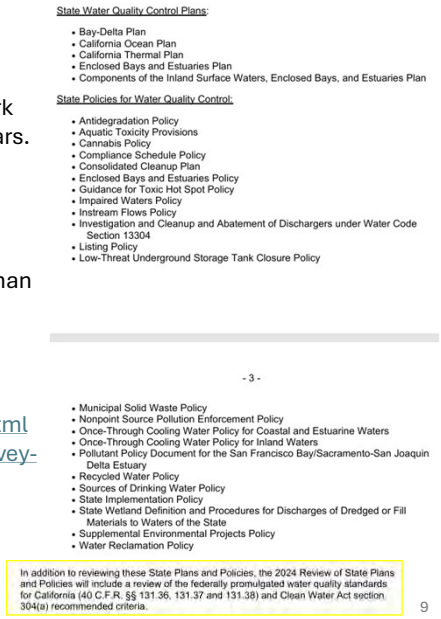
The State Water Board is conducting a survey to prioritize its work on amending water quality plans and policies over the next 3 years.

Clean Water Act section 304(a) criteria are also included in the survey.

304(a) criteria potentially applicable to SF Bay are much lower than existing CTR for criteria for many organic compounds such as bis(2-ethylhexyl)phthalate, butylbenzyl phthalate, and pentachlorophenol.

https://www.waterboards.ca.gov/plans_policies/2024_review.html
https://www.waterboards.ca.gov/plans_policies/docs/2024/survey-notice-fact-sheet-review-plans-policies-2024.pdf

The survey consists of an open-ended response for each policy, including the compliance schedule policy. Please respond!
Survey is open now through December 23, 2024



State Water Quality Control Plans:

- Bay-Delta Plan
- California Ocean Plan
- California Thermal Plan
- Enclosed Bays and Estuaries Plan
- Components of the Inland Surface Waters, Enclosed Bays, and Estuaries Plan

State Policies for Water Quality Control:

- Antidegradation Policy
- Aquatic Toxicity Provisions
- Cannabis Policy
- Compliance Schedule Policy
- Consolidated Cleanup Plan
- Enclosed Bays and Estuaries Policy
- Guidance for Toxic Hot Spot Policy
- Impaired Waters Policy
- Instream Flows Policy
- Investigation and Cleanup and Abatement of Dischargers under Water Code Section 13304
- Listing Policy
- Low-Threat Underground Storage Tank Closure Policy

- 3 -

- Municipal Solid Waste Policy
- Nonpoint Source Pollution Enforcement Policy
- Once-Through Cooling Water Policy for Coastal and Estuarine Waters
- Once-Through Cooling Water Policy for Inland Waters
- Pollutant Policy Document for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary
- Recycled Water Policy
- Sources of Drinking Water Policy
- State Implementation Policy
- State Wetland Definition and Procedures for Discharges of Dredged or Fill Materials to Waters of the State
- Supplemental Environmental Projects Policy
- Water Reclamation Policy

In addition to reviewing these State Plans and Policies, the 2024 Review of State Plans and Policies will include a review of the federally promulgated water quality standards for California (40 C.F.R. §§ 131.36, 131.37 and 131.38) and Clean Water Act section 304(a) recommended criteria.

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9. CECs White Paper

Finally complete!

https://bacwa.org/wp-content/uploads/2024/11/POTW-Participation-in-CECs-Studies-White-Paper-2024-Update.pdf

White Paper updates:

- Updated statistics about Bay Area treatment plants (population, flow, pretreatment, recycled water)
- Treatment technology, including nitrogen removal (NEW), filtration, and disinfection
- New section summarizing recently completed studies (2019-2024)

Table A3. Treatment Technologies for POTWs Discharging to SF Bay

AS = Activated Sludge; DAF = Dissolved Air Flotation; TF = Trickling Filter; MBR = Biological Membrane Reactor; NDN = Nitrification + Denitrification

POTW	Secondary Treatment Type	Nitrogen Removal	Disinfection Type	Advanced Secondary / Filtration? (Y/N)
American Canyon	MBR	Nitrification	UV	Y
Benicia	AS and Rotating Biological Contactor	--	Sodium Hypochlorite	N
Burlingame	AS	--	Sodium Hypochlorite	N
CCCSD	AS	--	UV	N
CMSA	TF/AS	--	Sodium Hypochlorite	N
Delta Diablo	TF/AS (in parallel)	--	Sodium Hypochlorite	N
DSRSD	TF and/or AS	--	Sodium Hypochlorite	N

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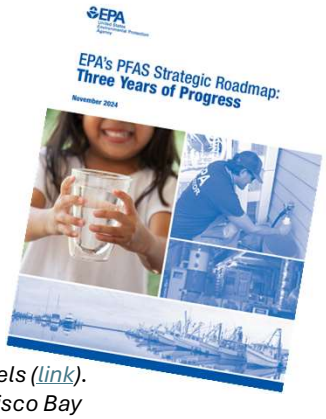
10. PFAS



USEPA has released a new progress update on their PFAS Strategic Roadmap.

https://www.epa.gov/system/files/documents/2024-11/epas-pfas-strategic-roadmap-2024_508.pdf

Key Updates:

- Coming Soon – Draft **human health criteria** for fish consumption
  In parallel, California OEHHA is also working on fish consumption advisory levels (link). Once finalized, federal or state fish consumption would likely affect San Francisco Bay wastewater discharges in the coming years, potentially via a 303(d) listing.
- Coming Soon – Draft risk assessment for PFOA and PFOS in **Biosolids**
  This is just a risk assessment, not regulations. If and when regulations are finalized, they are likely to affect Bay Area biosolids end uses in the coming years.
- Nationwide Study of PFAS in influent and sewage sludge is coming!
  - **Extremely likely** your agency will need to fill out the survey
  - **Possibly** your agency will need to sample influent, effluent, domestic sewage, and up to 10 IUs

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Executive Director's Report to the Board

December 2024

EXECUTIVE BOARD MEETING AND SUPPORT

- Worked with BACWA staff to plan and manage 12/6 Executive Board meeting
- Conducted the Executive Board meeting agenda review with the BACWA Chair
- Hosted 12/6 Executive Board meeting and developed meeting notes
- Continued to track all action items to completion

COMMITTEES:

- none

REGULATORY:

- Held preplanning meeting for BAAQMD permitting meeting (12/2)
- Attended meeting with BAAQMD management on permitting backlog (12/9)

NUTRIENTS:

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

- Attended NMS Planning Subcommittee meeting (12/4)
- Met with SFPUC to discuss collective advocacy on nutrient funding
- Met with Water Board and SFEI EO on NMS program management
- Met with NMS Science Manager on programmatic issues
- Attended NMS NTW meeting (12/9)
- Discussed next steps with SCCWRP OAH IPR SC members

COMMUNICATIONS

- Reviewed Civic Edge materials

FINANCE:

- Reviewed the monthly BACWA financial reports
- Reviewed and approved invoices
- Worked with completed Audit and Financial Statement

COLLABORATIONS:

- Attended BAOWN reboot kickoff (12/2)

ASC (AQUATIC SCIENCE CENTER)

- Reviewed materials sent via email by ASC ED

BABC (BAY AREA BIOSOLIDS COALITION)

- Met with BABC leadership to respond to questions about potential transition to BACWA (12/5)

BACC (BAY AREA CHEMICAL CONSORTIUM)

- none

BACWWE (BAY AREA COALITION FOR WATER/WASTEWATER EDUCATION)

- none

ADMINISTRATION:

- Planned for and conducted the monthly BACWA staff meeting to prepare for the Board Meeting and to coordinate and prioritize activities.
- 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.

MISCELLANEOUS MEETINGS/CALLS:

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

Board Calendar

Feb 2025 – April 2025 Meetings

DATE	AGENDA ITEMS
Feb 21, 2025 *EBMUD Orinda*	**Approvals & Authorizations:** • • **Policy / Strategic Discussion:** • Pesticides Presentation **Operational:** • FY26 Draft Budget •
March 21, 2025 *Central San*	**Approvals & Authorizations:** • • **Policy / Strategic Discussion:** • Watershed permit submittals to water board • SCCWRP Costal Monitoring Project presentation **Operational:** • FY26 Second Draft Budget •
April 18, 2025 *EBMUD Downtown*	**Approvals & Authorizations:** • • **Policy / Strategic Discussion:** • **Operational:** • FY26 Budget Adoption •

BACWA ACTION ITEMS

Number	Subject	Task	Responsibiity	Deadline	Status
	Action Items from Dec 6 2024 BACWA Executive Board Meeting		**resp.**	**deadline**	**status**
2025.12.13	Preview of 2024 GAR data	BACWA ED and RPM to set up a series of meetings to coordinate on compliance schedule milestone information needed for the 2024 GAR.	RPM	12/31/2024	complete
2025.12.14	Request for BACWA participation in WRF opportunity 5288	BACWA ED will follow up with Mike Falk and bring an update to the January meeting.	ED	12/31/2025	complete
2025.12.15	Memo to support extended compliance schedules	BACWA to provide template answer for agencies to use to respond to the State Water Board survey on state plans and policies.	RPM	12/16/2024	complete
2025.12.16	Updated memo justifying Non-competitive EPA grant for nutrient management	BACWA ED will provide update in January.	**ED**	1/15/2025	complete
2025.12.17	Update on BABC integration into BACWA	BACWA ED will prepare the BABC support when the FY26 BACWA budget is developed.	**ED**	1/15/2025	complete
2025.12.18	Meeting dates for CY 2025	BACWA AED will send calendar invites.	**AED**	12/31/2024	complete
	Action Items Remaining from Previous BACWA Executive Board Meetings				
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
2025.08.08	Summary of Watershed Permit activities	BACWA ED to work with member agencies on roles, responsibilities & timeline.	ED		on going

FY25: 17 of 18 Action items are complete
FY24: 43 of 43 Action Items are complete
FY23: 58 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*

Regulatory Program Manager's Report to the Executive Board

December 2024

BACWA BULLETIN: Completed and circulated December Bulletin.

BAY AREA BIOSOLIDS COALITION: Assisted with preparations for December meeting; participated in meeting and took notes; prepared draft meeting summary.

BIOSOLIDS: Finalized and submitted 2024 biosolids memo to Solano County Environmental Health Division staff.

NUTRIENTS: Participated in nutrient technical workgroup meeting held at San Francisco Estuary Institute (SFEI); prepared template member response and submitted BACWA response to State Water Board survey of plans and policies; coordinated with HDR and contract management group on compilation of compliance schedule milestone information for 2024 Group Annual Report.

PFAS: Reviewed draft EPA human health water quality criteria for PFAS, then circulated summary to BACWA Permits committee; discussed PFAS messaging with Sagent and DTSC staff.

REGIONAL MONITORING PROGRAM: Coordinated with SFEI staff regarding 2025 NPDES compliance letter summarizing RMP activities; held discussion with RMP staff regarding concepts for future studies of constituents of emerging concern (CECs).

COMMITTEE SUPPORT:

AIR – Participated in December committee meeting and CASA Air Toxics workgroup meeting; prepared contact information for AIR committee for BAAQMD permit workload projections; shared industrial wastewater information with CASA staff.

BAPPG – Participated in December committee and steering committee meetings and prepared draft meeting notes; updated FOG food truck flyer to reflect December meeting discussion; reviewed draft pesticides strategy document for veterinary outreach.

Collection Systems – Participated in CASA Collection System Workgroup.

Laboratory and Permits Committees – Coordinated with committee leaders to prepare regulatory updates for joint December meeting at DSRSD; participated in joint meeting and tour; reviewed draft individual NPDES permits for member agencies; scheduled 2025 meetings for both committees.

Pretreatment – Prepared and circulated notes from November committee meeting.

Recycled Water – Met with member agency and WateReuse staff to discuss emerging regulations for onsite nonpotable reuse with WateReuse.

Executive Board – Provided regulatory updates for Executive Board meeting.

ADMINISTRATIVE: BACWA website, email list subscriptions, and attendance certificates.

BACWA MEETINGS ATTENDED:
BAPPG Committee (12/4)
Executive Board (12/6)
Lab and Permits Committee (12/10)
AIR Committee (12/11)

EXTERNAL EVENTS ATTENDED:
Nutrient Science Planning Workshop (12/9)
CASA Regulatory Workgroup (12/12)
Bay Area Biosolids Coalition (12/17)
CASA Collection Systems Workgroup (12/18)