Executive Board Meeting
AGENDA
Friday, December 6, 2024 9:00 AM - 12:30 PM (PDT)
EBMUD
375 11th Street, Oakland CA 94706
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	October 18, 2024 BACWA Executive Board meeting minutes			**3-7**
2	November 22, 2024 Special Executive Board Joint meeting with R2			**8-10**
3	October 2024 Treasurer's Report			**11-19**
	APPROVALS AND AUTHORIZATIONS		**9:15 AM**	
4	Approval: FY2024 BACWA Audit and Financial Statement			**20-41**
5	Approval: FY2025 Contract with HDR for Tasks 1-5 of Nutrient Permit Support, $387,555			**42-56**
	POLICY/STRATEGIC		**9:25 AM**	
6	Presentation: DTSC Safer Consumer Products update			
7	Discussion: Statewide Pesticides engagement			
8	Discussion: Draft BACWA Communications Plan			**57**
9	Presentation: Preview of 2024 GAR data			
10	Discussion: Request for BACWA participation in WRF opportunity 5288	Link to RFP		**58-59**
11	Discussion: Memo to support extended compliance schedules	Link to Water Board Policy Survey		**60-73**
	BREAK		**10:30 AM**	
12	Discussion: Debrief from R2 Joint meeting, Nov 22			
13	Informational: Updated memo justifying Non-competitive EPA grant for nutrient management			**74-81**
14	Informational: NMS Update - 11/6 Planning Subcommittee notes			**82-86**
15	Informational: Statewide recycled Water production update			**87-89**
16	Informational: Onsite reuse regulations update			
	OPERATIONAL		**11:30 AM**	
17	Informational: Update on BABC integration into BACWA			**90-92**
18	Discussion: Meeting dates for CY 2025			**93**
19	Informational: FY26 Budget Schedule			**94**
20	Discussion: Annual meeting planning kickoff			
	REPORTS		**12:10 AM**	
21	Committee Reports			**95-98**
22	Member highlights			
23	Executive Director Report			**99-100**
24	Board Calendar and Action Items			**101-102**
25	Regulatory Program Manager Report			**103-104**
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		
	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		
27 **SUGGESTIONS FOR FUTURE AGENDA ITEMS**		**12:25pm**	
NEXT MEETING			
The next meeting of the Board is scheduled for January 17, 2025 at SFPUC			
ADJOURNMENT		**12:30 PM**	

Executive Board Meeting Minutes

Friday, October 18, 2024, 9:00 AM - 12:30 PM (PDT)

Central San, 5019 Imhoff Place, Martinez, CA 94553-4392

Executive Board Representatives: Jennie Pang (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
Amanda Roa	Delta Diablo
Amy Kleckner	SFEI
Anthony Smith	City of Livermore
Blake Brown	Central San
Cheryl Muñoz	City of Hayward
Dan Gill	DSRSD
David Richardson	Woodard & Curran
Erin Martin	CASA
Greg Norby	Central San
Jared Voskuhl	CASA
Jay Davis	SFEI
Jean-Marc Petit	Ironhouse Sanitary District
Jennifer Dyment	BACWA
Jesse McDermott	Central San
Jordan Damerel	Fairfield-Suisun Sewer District
Lorien Fono	BACWA
Mary Cousins	BACWA
Mike Falk	HDR
Rob Learmonth	City of San Mateo
Sara Sadreddini	Black & Veatch
Simret Yigzaw	City of San Jose
Tim Lewis	Dublin San Ramon Services District
Tom Hall	EOA

Jackie called the meeting to order at 9:06.

Agenda Item

ROLL CALL, INTRODUCTIONS, AND TELECONFERENCE ETIQUETTE

PUBLIC COMMENT Guidelines

CONSIDERATION TO TAKE AGENDA ITEMS OUT OF ORDER Item 5 is a presentation by SFEI and it will be taken when the presenters arrive.

CONSENT CALENDAR

1 August 16, 2024 BACWA Executive Board meeting minutes

2 August 16, 2024 BACWA/R2 Special Joint meeting minutes

3 August 2024 Treasurer's Report

Consent Calendar items 1 thru 3: A motion to approve was made by Amit Mutsuddy (EBMUD) 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 Annual Report - BACWA ED summarized the contents of the BACWA Annual Report and highlighted a few items.

Approvals and Authorizations item 4: A motion to approve was made by Eric Dunlavey (City of San Jose) and seconded by Amit Mutsuddy (EBMUD). All were in favor. None opposed. None abstained.

POLICY/STRATEGIC

5 Presentation: RMP Priorities and Update - Amy Kleckner and Jay Davis from SFEI provided an update and summarized the priorities of the regional monitoring program (RMP). The RMP collects data and communicates information about water quality in the San Francisco Bay. The RMP has a steering committee, a technical review committee that meets quarterly and several workgroups. The presenters summarized the RMP's management needs, funding requests and project goals. Stakeholders are invited to the multi-year RMP planning workshop on November 4, 2024. The presenters asked for input on RMP priorities, and attendees suggested consideration of nutrient reduction impacts on CECs, a survey of actual shellfish harvesting to support beneficial use designation, and an annual "state of the bay" summary. General discussion followed. RMP multi-year Plan 2024 Annual Update.

6 Discussion: Debrief from Pardee Technical Seminar - BACWA ED shared that there are notes in the packet from the Pardee Technical Seminar to guide BACWA activities next year. Areas of interest included financial, strategic plan implementation, regulatory engagement, nutrient science, trading and EPA program office.

BREAK 10:20-10:30

7 Discussion: Nutrient Permit Support RFP posted – BACWA ED shared a timeline for the RFP and thanked the volunteers that provided input during its development. Link to RFP

8 Discussion: Memo justifying Non-competitive EPA grant for nutrient management – BACWA RPM shared a proposed scope for grant-funded work. General discussion followed.

Action Item: BACWA RPM and ED to update draft scope of work based on discussion, then circulate revised version to Executive Board for review.

9 Informational: NMS Meeting Minutes - BACWA ED shared that there are meeting minutes on the SFEI website and included in the packet. Attention was directed to the October 11 7meeting where BACWA & Water Board shared their priorities for revising the science plan to support the SF Bay Nutrients Watershed Permit.

i. September 11, 2024 Planning Subcommittee

ii. September 24, 2024 Planning Subcommittee

iii. October 11, 2024 Steering Committee Meeting

10 Informational: BCDC Regional Shoreline update - BACWA RPM summarized the document and noted that public comments are due today.

11 Discussion: Debrief from 9/23 BAAQMD/BACWA Workgroup meeting and 9/30 Anaerobic Digestion Meeting - BACWA ED suggested that we agendize this item for a future meeting and bring in BAAQMD staff to present.

Action item: BACWA ED to schedule for future meeting.

12 Informational: BACWA Comments on Triennial Review - BACWA RPM shared that BACWA submitted comments and the letter is in the packet.

13 Informational: NapaSan awarded Dr. Teng-Chung Wu P2 Award - BACWA RPM shared that NapaSan is receiving the pollution prevention award from the Water Board for their community events and outreach.

OPERATIONAL

14 Informational: Debrief from David Jenkins scholarship workshop – BACWA ED shared that the workshop was a success and that the organizers would like to do another event in 2025. The presentations are available on the BACWA website. Workshop Page

15 Discussion: Draft agenda and logistics for R2 Joint meeting, Nov 22 - BACWA ED shared that the November 22 meeting with Regional Water Board will be at the Klamath Boat in SF and the proposed agenda was reviewed.

Action item: BACWA ED to finalize agenda for event.

16 Informational: Update on BABC integration into BACWA - BACWA ED shared that BABC may be absorbed into BACWA. This is an ongoing process.

17 Discussion: Strategic Plan Update - BACWA ED shared a cheat sheet with three changes to the strategic plan. The updated strategic plan is in the packet.

18 Discussion: Holiday meeting and committee chair appreciation - BACWA ED asked for suggestions on what to do for the Holiday meeting. The group agreed on a holiday lunch but was undecided on what to do for committee chairs.

Action item: BACWA ED and AED to plan holiday lunch at EBMUD downtown.

19 Discussion: Meeting dates for CY 2025 - BACWA ED shared document from the packet. The group agreed to cancel the August 2025 meeting, and the Pardee Technical Seminar is Oct 9 & 10 2025. We might change the date of the July 2025 meeting, and we will review the November & December 2025 dates in early 2025.

Action item: BACWA AED to send 2025 calendar updates to BACWA Board.

20 Discussion: BACWA Representatives Update - BACWA ED shared that we have updated the representatives email list, corrected some outdated contacts, and we are looking for a few new representatives.

Action item: BACWA ED to update Representation lists.

21 Discussion: ED Performance Evaluation Logistics - BACWA ED gave options for ED performance evaluation. It could be a closed session during the December meeting or have the Board Chair and Vice Chair perform the evaluation. Attendees agreed on the latter.

Action item: BACWA ED will send out her performance evaluation to the board members and they can decide how to share feedback.

REPORTS

22 Committee Reports - In the packet.

23 Member highlights - none

24 Executive Director Report - In the packet.

25 Board Calendar and Action Items - In the packet.

26 Regulatory Program Manager Report - In the packet.

27 Other BACWA Representative Reports

a. RMP Technical Review Committee Samantha Engelage, Alicia Chakrabarti

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. NACWA Emerging Contaminants Karin North; Melody LaBella

i. CASA State Legislative Committee Lori Schectel

j. CASA Regulatory Workgroup Lorien Fono; Mary Cousins

k. RMP Microplastics Liaison Artem Dyachenko

l. Bay Area Regional Reliability Project Jackie Zipkin

m. WateReuse Working Group Cheryl Munoz

n. San Francisco Estuary Partnership Lorien Fono; Jackie Zipkin

o. CPSC Policy Education Advisory Committee Colleen Henry

p. California Ocean Protection Council Lorien Fono

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

r. CHARG - Coastal Hazards Adaptation Resiliency Group Jackie Zipkin

s. California Water Quality Monitoring Council Lorien Fono

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

28 SUGGESTIONS FOR FUTURE AGENDA ITEMS

NEXT MEETING

The next meeting of the Board is scheduled for December 6, 2024, at EBMUD in Downtown Oakland

ADJOURNMENT 12:34

Special Executive Board Meeting Minutes
Joint Meeting with Regional Water Board Staff
November 22, 2024

INTRODUCTIONS

Executive Board Representatives: Alicia Chakrabarti (EBMUD), Jackie Zipkin (East Bay Dischargers Authority); Eric Dunlavey (San José), Lori Schectel (Central San); Amy Chastain (SFPUC)

Other Attendees:

Name(s)	Agency
Eileen White, Kevin Lunde, Bill Johnson, Richard Looker, Robert Schlipf, James Parrish	San Francisco Bay Regional Water Quality Control Board
Lorien Fono, Jennifer Dyment, Mary Cousins	BACWA
Greg Norby	Central San
David Donovan	Hayward
Joel Prather	SFPUC
Armando Lopez	Union Sanitary District
Amanda Roa	-

The meeting began at 10 am at the offices of San Francisco Estuary Institute in Richmond. There was no public comment.

SUMMARY OF DISCUSSION

Water Board and Agency Updates

Regional Water Board Executive Officer Eileen White reported that the composition of the seven-member Regional Water Board is expected to remain the same for the next year. She also reported on the impact of State budget cuts on the Regional Water Board; additional layoffs are possible. Eileen stated that amending the State's Compliance Schedule Policy is the Regional Water Board's "highest priority" for implementation of the Nutrient Watershed Permit.

BACWA members provided individual agency updates with a focus on nutrient removal projects:

- Central San is moving forward with full-scale demonstration of a membrane aerated biofilm reactor (MABR) for nutrient removal.
- EBDA is moving forward with the "First Mile" horizontal levee project; thanks to grant funding from the EPA's Water Quality Improvement Fund, the project will move into the design and permitting phase in early 2025.
- Union Sanitary District is in the middle of construction on Phase 1 of the agency's three-phase Enhanced Treatment & Site Upgrade project. Phase 2 is about to go out to bid, and is expected to cost $235M.

- Hayward anticipates completing nutrient removal upgrades at the plant by 2030, but is currently focused on an electrical switchgear project and new administration and lab building. The city has also issued an RFP for preliminary design for nature-based solutions (link).
- EBMUD reported that the agency is currently focused on long-term capital and financial planning, including the impact of nutrient upgrades on customer rates.
- San José reported on a staff reorganization; Eric Dunlavey will be leading a new regulatory affairs and purified water division that will work with Valley Water to develop a potable reuse project.
- SFPUC reported that the new headworks at Southeast Plant is now operational, staff have kicked off a mainstream nutrient removal project at Southeast Plant, the new Treasure Island plant will start up in 2025, and the Coastal Commission has approved a seawall to protect the Oceanside plant.

Regional Monitoring Program and Constituents of Emerging Concern (CECs)

BACWA's Regulatory Program Manager shared that a white paper is now available regarding wastewater agency participation in studies of CECs by the Regional Monitoring Program. Regional Water Board staff shared that Maggie Monahan is their contact person for CECs.

PFAS

BACWA shared that a final report and journal article for the Regional PFAS Study are now available. In 2025, BACWA will begin planning the next phase of the project under the "PFAS Sources to Solutions" effort led by SFEI. Regional Water Board staff shared that OEHHA is working on fish consumption advisory tissue levels for PFAS compounds (link) that could result in a 303(d) listing for San Francisco Bay. The effort will assume a fish consumption level of 2 meals/week. BACWA's pollution prevention committee plans a spring outreach campaign on PFAS. The group discussed that pollution prevention messaging should be positive and actionable, rather than angst-inducing.

Regulatory Updates from BACWA on Cross-Media Issues

BACWA's Executive Director shared details about ongoing outreach to BAAQMD to ensure that air permitting does not slow the implementation of nutrient removal projects, since delays will affect both project cost and water quality. Regional Water Board staff offered to assist with messaging to BAAQMD staff at future coordination meetings, and also suggested that BAAQMD might be able to obtain assistance from USEPA Region 9.

Update from Water Board on Triennial Review

Regional Water Board staff are planning to present the Triennial Review list of projects at an upcoming board meeting. They have sufficient resources to work on four projects, including one regarding a nutrient water quality attainment strategy for nutrients. They are also seeking additional resources from USEPA to support nutrient-related work.

Watershed Permit Implementation and Compliance Schedule Policy

BACWA's Executive Director shared an update on BACWA's efforts to hire a consultant to support work related to the Nutrient Watershed Permit. BACWA plans to solicit feedback from Regional Water

Board staff on the draft scoping plan in spring 2025. Regional Water Board staff shared a status update on their efforts related to an amendment of the State Water Board's compliance schedule policy, and are exploring options for narrow or broader edits. They are aiming to have this process completed before the next permit reissuance.

Representatives from EBMUD, San José, and Union Sanitary District shared details about their respective agencies' nutrient removal projects to demonstrate their high cost, long planning horizons, and logistical complexity.

Science Update

Dave Senn, lead scientist for the Nutrient Management Strategy, gave an update on recent work to understand the initiation, stagnation, and crash of the 2022 bloom of *Heterosigma akashiwo* in San Francisco Bay. He described work to characterize the "window of opportunity" that occurs each time there are weak (neap) tides that occur during summer daylight hours. The model is now working well to replicate conditions observed in the field in summer 2022, but more work is required before it can be used in a predictive way to model other scenarios. He suggested focusing scientific inquiry on parameters that would significantly impact either the magnitude or confidence level of management actions (for example, direct toxicity endpoint of HABs).

Nutrient Management Questions

Attendees discussed their thoughts about key nutrient management questions that should guide scientific work during the term of the current Nutrient Watershed Permit (2024-2029). There was unanimous agreement on the goal of protecting San Francisco Bay and continuing to improve model functionality. BACWA members expressed their preference for limits to remain stable over time, which is beneficial for capital planning. Regional Water Board staff shared their constraints related to the establishment of WQBELs during each new permit reissuance. The group discussed the pros and cons of codifying nutrient removal requirements in the Basin Plan through a TMDL / water quality attainment strategy. The amount of scientific work required to support a TMDL significantly exceeds the current level of effort, and developing a TMDL would take more than 5 years. It would result in greater regulatory certainty but less flexibility.

Nature-Based Solutions

Ellen Plane and Ian Wren shared the results of recently completed work on nature-based solutions for nutrient removal. The reports are posted on SFEI's website. They shared details related to the Phase I opportunities and constraints analysis, Phase II site evaluations, and Phase III concept designs completed for Delta Diablo, Fairfield-Suisun Sewer District, and San José – Santa Clara. They also completed a separate study regarding dual-purpose basins for wet weather flow equalization and dry weather nutrient removal. The project team is continuing to work on nature-based solutions under the "Destination Clean Bay" grant from UESPA.

The meeting was adjourned at 4 pm.

BACWA
BAY AREA
CLEAN WATER
AGENCIES

November 21, 2024

MEMO TO: Bay Area Clean Water Agencies Executive Board

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

SUBJECT: Fourth 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 October 31, 2024** (Four 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, December 2, 2024 10:02 AM
To: Houck, Matt
Subject: RE: October 2024 Treasurer's Report

Hi Matt – Report looks good. Approved. Thanks for the reminder.

Had a good break. Hope you did too!

-Phoebe

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

---

From: Houck, Matt <matt.houck@ebmud.com>
Sent: Monday, December 2, 2024 8:55 AM
To: Grow, Phoebe <phoebe.grow@ebmud.com>
Subject: FW: October 2024 Treasurer's Report

Morning Phoebe,

Hope you had a nice Holiday break? Did you have a chance to approve 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: Thursday, November 21, 2024 11:33 AM
To: Grow, Phoebe <phoebe.grow@ebmud.com>
Subject: October 2024 Treasurer's Report

Hi Phoebe,

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

Let me know if you have any questions.

Thanks,

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 31st, 2021, revenues are recognized when billed, not when payments are received.

BACWA Fund: This fund provides resources for BACWA staff, its committees, and other administrative needs. The ending fund balance on October 31, 2024, was $792,820 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. $593,888 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 $198,932 unobligated.

CBC Fund: This fund provides the resources for completing special investigations as well as meeting regulatory requirements. The ending fund balance on October 31, 2024, was $3,233,492 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 contract, completion of the NBS Study, Recycled Water Evaluation, and the PFAS Regional Study. 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 October 31, 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 October 31, 2024 (33% of the FY) are at 83%

Expenses as of October 31, 2024 (33% of the FY) are at 37%

FY 2025
BACWA BUDGET to ACTUAL

BACWA BAY AREA CLEAN WATER AGENCIES

BACWA FY25 BUDGET	Line Item Description	FY 2025 Budget	Actual October 2024	Actual % of Budget October 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	$0			New in FY25
Interest Income	LAIF	$80,000	$85,991	107%	$5,991	BACWA, Legal, & CBC Funds invested in LAIF
	Total Revenue	**$3,763,077**	**$3,122,547**	**82.98%**	**-$640,530**	

BACWA FY25 BUDGET	Line Item Description	FY 2025 Budget	Actual October 2024	Actual % of Budget October 2024	Variance	NOTES
EXPENSES						
Labor						
	Executive Director	$224,230	$56,057	25%	-$168,173	(incl 2.6% CPI SF Bay Metro Area Dec 2023)
	Assistant Executive Director	$94,417	$24,223	26%	-$70,193	(incl 2.6% CPI SF Bay Metro Area Dec 2023); $78.68/hour; Reflects 1200 hours
	BACC Administrator	$39,522	$6,126	15%	-$33,396	400 hrs AED support at $98.80 per hr
	Regulatory Program Manager	$156,136	$40,246	26%	-$115,889	(2.6% CPI SF Bay Metro Area Dec 2023); $115.65/hour, Reflects 1350 hours
	Total	**$514,304**	**$126,653**	**25%**	**-$387,651**	
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	$397	11%	-$3,103	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**	**$8,031**	**23%**	**-$26,640**	
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

FY 2025
BACWA BUDGET to ACTUAL

EXPENSES						
	Website Development/Maintenance	$1,624	$180	11%	-$1,444	2% increase from FY24
	IT Support	$2,814	$0	0%	-$2,814	2% increase from FY24
	BACWA Value of Wastewater Communication	$40,000	$8,329	21%	-$31,671	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**	**$8,859**	**18%**	**-$39,028**	
Legal						
	Regulatory Support	$50,000	$67,342	135%	$17,342	Increase from FY24, new contract with Meyers Nave
	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	$20,020	26%	-$55,980	$75k consulting support, $1k misc expenses. Carollo Engineers
	BAPPG	$170,560	$47,715	28%	-$122,845	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**	**$119,366**	**38%**	**-$193,194**	
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

FY 2025
BACWA BUDGET to ACTUAL

EXPENSES						
	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**	
	TOTAL EXPENSES	**$4,111,105**	**$1,515,795**	**36.87%**	**-$2,595,310**	
	PROJECTED EXPENSE DEVIATION FROM BUDGET					
	NET INCOME BEFORE TRANSFERS	**-$348,028**	**$1,606,752**			
	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 October 31, 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	807,620	347,198	792,820	593,888	198,932
604	LEGAL RSRV	300,000	-	-	300,000	-	300,000
605	CBC	2,038,831	2,328,407	1,133,746	3,233,492	102,742	3,130,750
	SUBTOTAL 1	*2,671,229*	*3,136,027*	*1,480,944*	*4,326,312*	*696,630*	*3,629,682*
602	BABC	*240,179*	177,000	35,577	381,602	*84,423*	297,179
606	BACC	*35,351*	*2,434*	*36,126*	1,659	*33,426*	(31,767)
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*	*71,703*	*1,249,522*	*117,849*	*1,131,673*
	GRAND TOTAL	**3,254,120**	**3,874,361**	**1,552,647**	**5,575,834**	**814,479**	**4,761,355**

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	807,620	347,198	792,820	(212,049)	32,618	613,389	-	613,389	25%	-		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	2,328,407	1,133,746	3,233,492	(354,495)	-	2,878,997	1,466,213	1,412,784	58%	-		priority # 4 for allocation
	SUBTOTAL 1	2,671,229	3,136,027	1,480,944	4,326,312	(566,544)	32,618	3,792,386	1,466,213	2,326,173	95%	-		
602	BABC	240,179	177,000	35,577	381,602	(46,900)	-	334,702	334,702	-	0%	-		pass-through funds, no allocation
606	BACC	35,351	2,434	36,126	1,659	-	-	1,659	1,659	-	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	(181,560)	-	305,500	305,500	-	0%	-		pass-through funds, no allocation
	SUBTOTAL 2	582,891	738,334	71,703	1,249,522	(228,460)	-	1,021,062	901,062	120,000	5%	-		
	GRAND TOTAL	**3,254,120**	**3,874,361**	**1,552,647**	**5,575,834**	**(795,004)**	**32,618**	**4,813,448**	**2,367,275**	**2,446,173**	**100%**			
							-	-	-		-			

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

Reconciliation to Trial Balance

Per Report above:					
General	3,136,027	STB	14930	2,446,173	
WOT, BABC, & BACC	738,334	STB	15050	2,367,275	
PROP	-			**4,813,448**	-
subtotal	**3,874,361**	STB	16300	795,004	
		STB	21350	(32,618)	
				5,575,834	-

Trial Balance Revenue Accounts		
40100	Interest	(88,425)
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		**(3,874,361)**
Difference		**-**

BACWA Revenue Report as of October 31, 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)	(28,979.36)	(50,215.86)	29,784.14
		BDO-Alternative Investment Inc	6143	-	-	-	-
600 Total				**(888,077.00)**	**(28,979.36)**	**(807,619.86)**	**80,457.14**
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	-	(18,089.16)	(35,775.62)	(35,775.62)
605 Total				**(2,275,000.00)**	**(18,089.16)**	**(2,328,407.62)**	**(53,407.62)**
606	Bay Area Chemical Consortium	BDO Member Contributions	6101	-	-	-	-
		BDO- Interest Income from LAIF	6142	-	(1,339.94)	(2,433.95)	(2,433.95)
606 Total				**-**	**(1,339.94)**	**(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)**	**(48,408.46)**	**(3,874,361.43)**	**(111,284.43)**

BACWA Treasurer's Report Expenses and Encumbrances

Period Covering July 1, 2024 through October 31, 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	(561.00)	6,233.00
	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	-	24.89	(24.89)
	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	396.79	3,103.21
	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**	**941,085.86**	**52,997.14**
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	-	120,000.00	(120,000.00)
	Technology Research & Development	6206	-	-	-
602 Total			**39,522.00**	**120,000.00**	**(80,478.00)**
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	-	39,552.00	(39,552.00)
	BDO Fund Transfers	6141	-	30,000.00	(30,000.00)
	GBS-Meeting Support-Misc	6172	-	-	-
606 Total			**-**	**69,552.00**	**(69,552.00)**
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**	**2,367,125.49**	**1,742,979.51**

BACWA EXECUTIVE BOARD AUTHORIZATION REQUEST

AGENDA NO.: 4

MEETING DATE: December 6, 2024

TITLE: Approval of Audited Financial Reports for the Year Ended June 30, 2024

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

RECOMMENDED ACTION
Approve the Audited Financial Report for Fiscal Year 2024 (BACWA Audit Communication Letter and BACWA Basic Financial Statement) provided by EBMUD acting as Treasurer of BACWA.

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

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

ALTERNATIVES
No alternatives were considered as the Audit and Financial Statement are required by the BACWA JPA.

Attachments:
BACWA Financial Statement

Approved:

_____ **Date: December 6, 2024**

Jackie Zipkin, BACWA Chair

October 30, 2024

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

We have audited the financial statements of Bay Area Clean Water Agencies, ("BACWA") for the years ended June 30, 2024 and 2023. Professional standards require that we provide you with information about our responsibilities under generally accepted auditing standards and, *Government Auditing Standards*, as well as certain information related to the planned scope and timing of our audit. We have communicated such information in our letter to you dated April 10, 2024. Professional standards also require that we communicate to you the following information related to our audit.

Significant Audit Matters

Qualitative Aspects of Accounting Practices

Management is responsible for the selection and use of appropriate accounting policies. The significant accounting policies used by BACWA are described in Note 1 to the financial statements. No new accounting policies were adopted and the application of existing policies was not changed during the fiscal year ended June 30, 2024. We noted no transactions entered into by BACWA during the year for which there is a lack of authoritative guidance or consensus. All significant transactions have been recognized in the financial statements in the proper period.

Accounting estimates are an integral part of the financial statements prepared by management and are based on management's knowledge and experience about past and current events and assumptions about future events. Certain accounting estimates are particularly sensitive because of their significance to the financial statements and because of the possibility that future events affecting them may differ significantly from those expected. We noted no significant estimates pertaining to BACWA during fiscal year 2023-2024.

The financial statement disclosures are neutral, consistent, and clear.

Difficulties Encountered in Performing the Audit

We encountered no significant difficulties in dealing with management in performing and completing our audit.

Corrected and Uncorrected Misstatements

Professional standards require us to accumulate all known and likely misstatements identified during the audit, other than those that are clearly trivial, and communicate them to the appropriate level of management. We are pleased to report that no such misstatements were identified during the course of our audit.

Disagreements with Management

For purposes of this letter, a disagreement with management is a financial accounting, reporting, or auditing matter, whether or not resolved to our satisfaction, that could be significant to the financial statements or the auditor's report. We are pleased to report that no such disagreements arose during the course of our audit.

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

Management Representations

We have requested certain representations from management that are included in the management representation letter dated October 30, 2024.

Management Consultations with Other Independent Accountants

In some cases, management may decide to consult with other accountants about auditing and accounting matters, similar to obtaining a "second opinion" on certain situations. If a consultation involves application of an accounting principle to BACWA's financial statements or a determination of the type of auditor's opinion that may be expressed on those statements, our professional standards require the consulting accountant to check with us to determine that the consultant has all the relevant facts. To our knowledge, there were no such consultations with other accountants.

Other Audit Findings or Issues

We generally discuss a variety of matters, including the application of accounting principles and auditing standards, with management each year prior to retention as BACWA's auditors. However, these discussions occurred in the normal course of our professional relationship and our responses were not a condition to our retention.

Other Matters

We applied certain limited procedures to management's discussion and analysis, which is required supplementary information ("RSI") that supplements the basic financial statements. Our procedures consisted of inquiries of management regarding the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We did not audit the RSI and do not express an opinion or provide any assurance on the RSI.

Future GASB Pronouncements

The following Government Accounting Standards Board (GASB) pronouncements will be effective for the following fiscal years' audits and should be reviewed for proper implementation by management:

Fiscal Year 2024-2025

GASB Statement No. 101, *Compensated Absences.*

GASB Statement No. 102, *Certain Risk Disclosures.*

Fiscal Year 2025-2026

GASB Statement No. 103, *Financial Reporting Model Improvements.*

Future Projects

Comprehensive Project, *Revenue and Expense Recognition.*

Major Project, *Going Concern Uncertainties and Severe Financial Stress.*

Major Project, *Infrastructure Assets.*

Practice Issue, *Classification of Nonfinancial Assets.*

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

Practice Issue, *Risks and Uncertainties Disclosures.*

Practice Issue, *Subsequent Events.*

Restriction on Use

This information is intended solely for the information and use of the Board of Directors and management of BACWA and is not intended to be, and should not be, used by anyone other than these specified parties.

Very truly yours,

Lance, Soll & Lunghard, LLP

Sacramento, California
Lance, Soll & Lunghard, LLP

BAY AREA CLEAN WATER AGENCIES

For the Years Ended June 30, 2024 and 2023

BASIC FINANCIAL STATEMENTS

Focused on YOU

BAY AREA CLEAN WATER AGENCIES

Basic Financial Statements
For the Years Ended June 30, 2024 and 2023

Table of Contents

Page

Independent Auditors' Report 1

Management's Discussion and Analysis 4

Basic Financial Statements

Statements of Net Position 7

Statements of Revenues, Expenses and Changes in Net Position 8

Statements of Cash Flows 9

Notes to the Basic Financial Statements 10

Independent Auditors' Report on Internal Control Over Financial Reporting And on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with Government Auditing Standards 15

INDEPENDENT AUDITORS' REPORT

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

Report on the Audit of the Financial Statements

Opinion

We have audited the accompanying financial statements of the Bay Area Clean Water Agencies ("BACWA"), as of and for the years ended June 30, 2024 and 2023, and the related notes to the financial statements as listed in the table of contents.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of BACWA, as of June 30, 2024 and 2023, and the changes in financial position, and cash flows thereof for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinion

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

Responsibilities of Management for the Financial Statements

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

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about BACWA's ability to continue as a going concern for twelve months beyond the financial statement date, including any currently known information that may raise substantial doubt shortly thereafter.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinions. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with generally accepted auditing

standards and *Government Auditing Standards* will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

In performing an audit in accordance with generally accepted auditing standards and *Government Auditing Standards*, we:

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

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

Required Supplementary Information

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

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

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated October 30, 2024, on our consideration of BACWA's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of BACWA's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering BACWA's internal control over financial reporting and compliance.

Lance, Soll & Lunghard, LLP

Sacramento, California
October 30, 2024

BAY AREA CLEAN WATER AGENCIES

Management's Discussion and Analysis
For the Years Ended June 30, 2024 and 2023

This section presents management's analysis of the Bay Area Clean Water Agencies (BACWA) financial condition and activities as of and for the years ended June 30, 2024 and 2023. Management's Discussion and Analysis (MD&A) is intended to serve as an introduction to BACWA's basic financial statements. The MD&A represents management's examination and analysis of BACWA's financial condition and performance.

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

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

Organization and Business

The Bay Area Clean Water Agencies (BACWA) is a local government agency created by a joint powers agreement in 1984. Our membership includes local clean water agencies that provide sanitary sewer services to the more than seven million people living in the nine county San Francisco Bay Area. BACWA was founded, and continues, to assist agencies in carrying out mutually beneficial projects, and to facilitate the development of scientific, economic and other information about the San Francisco Bay environment and the agencies that work to protect it and public health.

BACWA is governed by a five-person Executive Board comprised of one representative from each of the joint powers agreement signatory agencies: Central Contra Costa Sanitary District, East Bay Dischargers Authority, East Bay Municipal Utility District, the City and County of San Francisco, and the City of San Jose. BACWA members contribute funds to cover operating expenses based on an annual work plan and budget, in accordance with sections 9 and 10 of BACWA's Joint Powers Agreement. There are twelve associate members and forty-seven affiliate members that contribute a minimum of $9,142 and $1,831 annually, respectively.

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

Overview of the Financial Statements

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

BACWA's financial statements include:

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

The *Statements of Revenues, Expenses, and Changes in Net Position* present the results of BACWA's operations over the course of the fiscal year and information as to how the *net position* changed during the year.

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

The *Notes to the Basic Financial Statements* provide additional information that is essential to a full understanding of the data provided in the basic financial statements. The notes to the basic financial statements can be found on pages 10 to 14 of this report.

Financial Analysis:

Table 1 summarizes net position at June 30, 2024 and 2023, and Table 2 summarizes revenues, expenses and changes in net position for the years ended June 30, 2024 and 2023. Both tables also include changes from the prior year.

Table 1
Summary of Net Position
June 30, 2024 and 2023

	2024	2023	Variance
Current assets	$ 3,413,982	$ 3,394,489	$ 19,493
Current liabilities	133,919	97,127	36,792
Net position:			
Unrestricted	3,280,063	3,297,362	(17,299)
Total net position	$ 3,280,063	$ 3,297,362	$ (17,299)

- Current assets increased by $19,493 primarily due to an increase in investments and accrued interest receivable.
- Current liabilities increased by $36,792 primarily due to an increase in accounts payable.

Table 2
Summary of Revenues, Expenses, and Changes in Net Position
Years ended June 30, 2024 and 2023

	2024	2023	Variance
Operating revenues	$ 3,132,831	$ 3,080,655	$ 52,176
Operating expenses	(3,343,536)	(3,138,434)	(205,102)
Net operating income/(loss)	(210,705)	(57,779)	(152,926)
Nonoperating revenues	193,406	52,590	140,816
Change in net position	$ (17,299)	$ (5,189)	$ (12,110)

- Operating revenues increased by $52,176 primarily due to an increase in member contributions.
- Operating expenses increased by $205,102 primarily due to an increase in professional services.
- Non-operating revenues for the years ended June 30, 2024 and 2023 consisted of interest income. The increase of $140,816 is due to an increase in interest rates and BACWA's uninvested cash balance bearing interest.

Request for Information

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

BAY AREA CLEAN WATER AGENCIES
Statements of Net Position
June 30, 2024 and June 30, 2023

	2024	2023
ASSETS		
Cash and cash equivalents (Note 2)	$ 996,129	$ 1,073,205
Investments (Note 2)	2,390,109	2,302,195
Accounts receivable	1,799	1,830
Accrued interest receivable	25,945	17,259
Total assets	3,413,982	3,394,489
LIABILITIES		
Accounts payable	133,919	97,127
Total liabilities	133,919	97,127
NET POSITION (Note 1B)		
Unrestricted	3,280,063	3,297,362
Total net position	$ 3,280,063	$ 3,297,362

See accompanying notes to financial statements

BAY AREA CLEAN WATER AGENCIES
Statements of Revenue, Expense,
And Changes in Net Position
For Years Ended June 30, 2024 and June 30, 2023

	2024	2023
Operating income:		
Member contributions	$ 1,520,539	$ 1,456,269
Other receipts	1,612,292	1,624,386
Total operating revenue	3,132,831	3,080,655
Operating expense:		
Professional services	(2,775,874)	(2,647,703)
General and administrative	(567,662)	(490,731)
Total operating expense	(3,343,536)	(3,138,434)
Operating income (loss)	(210,705)	(57,779)
Nonoperating revenue:		
Interest income	193,406	52,590
Changes in net position	(17,299)	(5,189)
Total net position - beginning	3,297,362	3,302,551
Total net position - ending	$ 3,280,063	$ 3,297,362

See accompanying notes to financial statements

BAY AREA CLEAN WATER AGENCIES
Statements of Cash Flows
For the Years Ended June 30, 2024 and June 30, 2023

	2024	2023
Cash flows from operating activities:		
Cash received from member contributions	$ 1,520,570	$ 1,532,464
Cash received from other receipts	1,612,292	1,624,386
Cash paid for supplies and services	(3,306,744)	(3,251,871)
Net cash provided (used) by operating activities	(173,882)	(95,021)
Cash flows provided by investing activities:		
Interest received on investments	184,720	39,596
Net increase (decrease) in cash and equivalents, and investments	10,838	(55,425)
Cash and equivalents, and investments at beginning of period	3,375,400	3,430,825
Cash and equivalents, and investments at end of period	$ 3,386,238	$3,375,400
Reconciliation of cash and cash equivalents, and investments to amounts reported on the statement of net position		
Cash and cash equivalents	$ 996,129	$ 1,073,205
Investments	2,390,109	2,302,195
Cash and equivalents, and investments at end of period	$ 3,386,238	$ 3,375,400
Reconciliation of net operating income (loss) to net cash provided (used) by operating activities:		
Operating income	$ (210,705)	$ (57,779)
Adjustments to reconcile operating loss to cash flows from operating activities:		
Changes in operating assets and liabilities:		
Accounts receivable and other receivables	31	76,195
Accounts payable	36,792	(113,437)
Net cash flow provided (used) by operating activities	$ (173,882)	$ (95,021)

See accompanying notes to financial statements

NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

A. Description of Reporting Entity

The Bay Area Clean Water Agencies (BACWA) is a local government agency created by a joint powers agreement in 1984. Our membership includes local clean water agencies that provide sanitary sewer services to the more than seven million people living in the nine county San Francisco Bay Area. BACWA was founded, and continues, to assist agencies in carrying out mutually beneficial projects, and to facilitate the development of scientific, economic and other information about the San Francisco Bay environment and the agencies that work to protect it and public health.

BACWA is governed by a five-person Executive Board comprised of one representative from each of the joint powers agreement signatory agencies: Central Contra Costa Sanitary District, East Bay Dischargers Authority, East Bay Municipal Utility District, the City and County of San Francisco, and the City of San Jose. BACWA members contribute funds to cover operating expenses based on an annual work plan and budget, in accordance with sections 9 and 10 of BACWA's Joint Powers Agreement. There are twelve associate members and forty-seven affiliate members that contribute a minimum of $9,142 and $1,831 annually, respectively.

BACWA has the following special programs in the fiscal year 2024. Each special program's revenues and expenses are tracked separately from BACWA's other revenues and expenses.

- *The Clean Bay Collaborative (CBC)* is a program to develop and fund regional projects that benefit participants. Revenues come from contributions from program participants and expenditures are determined by the BACWA principals.

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

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

- *Bay Area Chemical Consortium (BACC)* became a Special Benefits Program in fiscal year 2020. BACC is an administrative program governed by BACWA and supported by the BACWA ED and AED. BACC solicits chemical bid information from more than 60 member agencies, then arranges a group bid. BACC participant agencies are invoiced for BACWA labor and other expenses related to bid administration at the end of each fiscal year.
- *CASA Air Toxics (CASA Pooled Emission Study AB 617)* program established a statewide annual reporting of emissions data to improve understanding of sources contributing to adverse health risks or other impacts at local, regional, and statewide levels. The California Association of Sanitation Agencies (CASA) negotiated a phased compliance, such that wastewater utilities must perform a "two-step process" to determine shortlist of compounds and factors: 1. Scan air space of unit processes to determine detectable compounds; and 2. Quantify emissions of detectable compounds to determine potential risk. CASA is leading a pooled emissions study to comply with the regulation and has set the fees for participation. BACWA is collecting fees from its members who have opted into the program and is directly passing those fees through to CASA to support the pooled emissions study.

NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

B. Basis of Accounting and Presentation

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

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

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

Statement of Net Position – The statement of net position is designed to display the financial position of BACWA. BACWA's fund equity is reported as net position, which is the excess of all the agency's assets and deferred outflows over all its liabilities and deferred inflows. Net position is divided into three captions under GASB Statement 34. As of June 30, 2024 and 2023, BACWA reported the following classifications of net position:

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

Statement of Revenues, Expenses, and Changes in Net Position – The statement of revenues, expenses, and changes in net position is the operating statement for proprietary funds. Revenues are reported by major source. This statement distinguishes between operating and non-operating revenues and expenses and presents a separate subtotal for operating revenues, operating expenses, and operating income. When both restricted and unrestricted resources are available for use, it is BACWA's policy to use restricted resources first, then unrestricted resources as they are needed.

C. Use of Estimates

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

D. Cash and Cash Equivalents

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

E. Fair Value Measurements

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

NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

F. Allocation of Costs

In accordance with the adopted work plan and approved budget for the year ended June 30, 2024, all costs incurred by BACWA for general overhead and for programs with general benefit are shared by BACWA members consistent with the terms of the Joint Powers Agreement establishing the agency, between each of the original signatory members.

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

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

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

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

NOTE 2 - CASH AND INVESTMENTS

A. Composition

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

	2024	2023
Demand deposits with banks	$ 996,129	$ 1,073,205
Local Agency Investment Fund	2,390,109	2,302,195
Total cash and cash equivalents	$ 3,386,238	$ 3,375,400

B. Collateralization of Cash and Cash Equivalents

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

NOTE 2 - CASH AND INVESTMENTS (CONTINUED)

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

C. Credit Risk

Credit risk is the risk that an issuer of an investment will not fulfill its obligation to the holder of the investment. This is measured by the assignment of a rating by a nationally recognized statistical rating organization. As an external investment pool, the Local Agency Investment Fund was not rated as of June 30, 2024 and 2023.

D. Fair Value Hierarchy

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

E. Interest Rate Risk

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

F. Local Agency Investment Fund (LAIF)

BACWA is a participant in the Local Agency Investment Fund (LAIF), which is regulated by California Government Code §16429 under the oversight of the Treasurer of the State of California. The value of the pool shares in LAIF is determined on an amortized cost basis, which is different from the fair value of its position in the pool. BACWA's investments with LAIF at June 30, 2024 and 2023 included a portion of the pool funds invested in Structured Notes and Asset-Backed Securities. These investments included the following:

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

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

As of June 30, 2024 and 2023, BACWA had investments of $2,390,109 and $2,302,195, respectively, invested in LAIF, which had invested 3.00% and 2.78% of the pooled investment funds in Structured Notes and Asset-Backed Securities.

NOTE 3 – RELATED PARTY TRANSACTION

As BACWA does not have any employees, EBMUD provides BACWA with ongoing treasury, accounting, and auditing pass-through costs, which are reimbursed by BACWA and the related organizations on no less than a quarterly basis. Total reimbursements for the year ended June 30, 2024 and 2023, were $43,461 and $39,021 respectively, and are primarily reflected in the general and administrative expenditures on the Statement of Revenues, Expenditures, and Changes in Net Position.

NOTE 4 – RISK MANAGEMENT

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

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

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

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

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

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements Bay Area Clean Water Agencies ("BACWA"), as of and for the years ended June 30, 2024 and 2023, and the related notes to the financial statements, which collectively comprise the BACWA's basic financial statements, and have issued our report thereon dated October 30, 2024.

Report on Internal Control over Financial Reporting

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

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

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

Report on Compliance and Other Matters

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

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

Purpose of This Report

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

Lance, Soll & Lunghard, LLP

Sacramento, California
October 30, 2024

EXECUTIVE BOARD AUTHORIZATION REQUEST

AGENDA NO.: 5

MEETING DATE: December 6, 2024

TITLE: Request for BACWA Executive Board Approval to Execute Agreement with HDR Engineering, Inc. for the 3rd Watershed Permit Compliance Support not to exceed $387,555 ($344,101 for Tasks 1-4).

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

RECOMMENDED ACTION

Authorize the execution of an agreement with HDR Engineering, Inc. to support 3rd Watershed Permit compliance in an amount not to exceed $387,555, which includes a lump sum of $344,101 for Tasks 1 through 4, and $43,454 for an Optional Task 5 which may be authorized at a later date.

SUMMARY

The 3rd Nutrient Watershed Permit was adopted by the San Francisco Regional Water Quality Control Board (Water Board) on July 10, 2024. In addition to load limitations, the Watershed Permit requires that individually or in collaboration, the major Dischargers conduct monitoring and reporting of flows and nutrient loads, reporting of milestones towards compliance with the final limits, and development of a Regional Plan that details efforts to come into compliance with the final effluent limitations and identifies alternatives to achieve lower limits, should they be required in future permits.

On October 9, 2024 BACWA issued a Request for Proposals (RFP) for consultant support for 3rd Nutrient Watershed Permit compliance. The tasks included in the RFP were:

- Task 1 – Project management
- Task 2 – Group Annual Reporting
- Task 3 – Compliance milestone reporting
- Task 4 – Regional Plan Scoping Plan

BACWA received three proposals in response to the RFP. A selection committee made up of BACWA staff, a BACWA Executive Board member, and member agency staff ranked the proposal submitted by HDR Engineering the highest of the three based on the selection criteria provided in the RFP.

A scope of work is attached with a contract cost of $344,101 for Tasks 1-4, to be paid as a lump sum. An optional Task 5 for a data dashboard is included in the contract, but will not be conducted without written notice from BACWA. The optional Task 5 will cost $43,454 if authorized. After the successful submission of the Task 4 Scoping Plan to the Water Board, BACWA and HDR Engineers will negotiate the level of effort associated with the Regional Plan Task, to be approved via contract amendment.

Once BACWA gives HDR a notice to proceed, a contract Management Group led by the BACWA Executive Director and composed of BACWA Executive Board member and member agency staff will oversee completion of the work and keep the Board apprised on progress.

FISCAL IMPACT

The Fiscal Year 25 BACWA Budget approved April 19, 2024 included a line item of $100,000 for this contract. The BACWA 5 Year Plan anticipates spending $600,000 for over four fiscal years for Watershed Permit support.

ALTERNATIVES

1. Do not complete this work: This alternative is not recommended since the Tasks herein are requirements of the 3rd Nutrient Watershed Permit and the BACWA members are relying on BACWA to complete them on their behalf.
2. Select another consultant to conduct the work: This alternative is not recommended since HDR Engineering Inc. was selected through a competitive process to complete the work.

Attachments:

Contract with HDR Engineering, Inc. including SOW, Schedule and Fees

Approved: _____ Date: _____

Jackie Zipkin, Chair,
BACWA Executive Board

BAY AREA CLEAN WATER AGENCIES PROFESSIONAL SERVICES CONTRACT

This PROFESSIONAL SERVICES CONTRACT, effective December 6, 2024, is between Bay Area Clean Water Agencies ("BACWA"), a joint powers agency which exists as a public entity separate and apart from its Member Agencies, created January 4, 1984 by a Joint Powers Agreement between Central Contra Costa Sanitary District, East Bay Dischargers Association, East Bay Municipal Utility District, the City and County of San Francisco and the City of San Jose, with a mailing address of P.O. Box 24055, MS 702, Oakland, CA 94623, and HDR Engineering Inc. ("Consultant"), a corporation doing business at 2121 N. California Blvd., Walnut Creek, CA 94596 for professional services as described in any Exhibit A attached hereto.

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

Description and Standard of Services to be Performed

1. Consultant will perform the Services as described by and in accordance with Exhibit A in accordance with the Professional Standard, as set forth in Section 3 below. The work is to be completed in accordance with the Schedule shown in Exhibit B
2. Consultant shall not contract with or otherwise use any subconsultants, subcontractors or other nonemployee persons or entities ("Subconsultants") to perform the Services, other than those specified in their Proposal dated November 6, 2024, without the prior written approval of BACWA. If Consultant and BACWA agree that Subconsultants shall be used, Consultant shall ensure Subsconsultants' compliance with all the terms and conditions of this agreement.
3. Consultant will exercise that degree of care in performing the Services in accordance with that prevailing among firms of comparable standing in the State of California ("Professional Standard"). Consultant will promptly correct or re-perform those Services not meeting the Professional Standard without additional compensation.
4. Consultant warrants that it is fully licensed, registered and otherwise fully authorized to perform the Services in the State of California to the extent applicable law requires such licensure, registration or authorization.
5. BACWA's review, approval, acceptance, use, or payment for all or any part of the Services hereunder will not alter the Consultant's obligations or BACWA's rights hereunder, and will not excuse or diminish Consultant's responsibility for performing all Services consistent with this Contract.

Payment for Services

6. BACWA will pay Consultant a lump sum amount of $344,101 arrived at based on the Tasks 1 through 4, identified staff and estimated levels of effort as shown in the detailed Fee Proposal shown in Exhibit C. Consultant will not exceed the maximum amount payable without obtaining prior written approval from BACWA. Any additional work will be negotiated based on the schedule of hourly rates and expenses shown in Exhibit D.
7. If BACWA provides written notice to proceed for Optional Task 5, BACWA will pay Consultant an additional lump sum amount of $43,454 arrived at based on the identified staff and estimated levels of effort as shown in the detailed Fee Proposal shown in Exhibit C. Consultant will not exceed the maximum amount payable without obtaining prior written approval from BACWA. Any additional work will be negotiated based on the schedule of hourly rates and expenses shown in Exhibit D.

8. Consultant shall submit invoices monthly. Invoices shall include the percent of each task completed in the Fee Proposal Summary shown in Exhibit E and the associated fee based on the Total Cost for each task along with a brief description of the work performed.
9. Payments under this Contract will be due thirty (30) days after BACWA's receipt of invoices. BACWA may withhold from any progress or final payment any damages, backcharges or claims incurred or anticipated by BACWA to the extent caused by breach of this Contract by Consultant.

Document Ownership and Retention

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

Indemnification

11. To the fullest extent allowed by law, Consultant will indemnify, hold harmless, reimburse and defend BACWA, its Member Agencies, and each of their officers, directors, employees and agents from, for and against any and all claims, demands, damages, losses, expenses, liabilities and penalties, including but not limited to reasonable attorneys' and expert witnesses' fees, arising out of or relating to the Services but only to the extent caused by the negligent or other wrongful acts or omissions of Consultant or any person or entity for whose acts or omissions any of them are responsible, or by the failure of any such party to perform as required by this Contract. In no event shall the cost to defend charged to Consultant exceed Consultant's proportionate percentage of fault.

Insurance

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

Assignment

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

Independent Contractor

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

Termination of Contract; Suspension of Services

15. This contract shall automatically terminate on December 31, 2029. Either party may also terminate this Contract in whole or in part at any time for its convenience. For a termination for convenience, the termination will be effective thirty (30) days following receipt of a written notice of termination by one party from the other. BACWA may terminate this Contract in whole or in part for cause, in which event the termination will be effective ten (10) days after Consultant's receipt of BACWA's written notice and Consultant's failure during that period to cure the default.

Dispute Resolution

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

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

18. A demand for dispute resolution by either party will be made within a reasonable time after the claim, dispute, or other matter in question has arisen, and in no event will it be made after the date when institution of court litigation based on such claim, dispute or other matter in question would be barred by the applicable period of limitations.

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

Severability

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

Survival

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

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

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

Exhibit A – Scope of Work
Exhibit B – Schedule
Exhibit C – Basis for Fees

CONSULTANT: HDR Engineering, Inc.

2121 N. California Blvd.

Street Address

Walnut Creek, CA 94596

City, State, Zip Code

47-0680568

Tax Identification No.

Consultant Signature *Date*

Name, Title

BACWA Signature *Date*

Jackie Zipkin, BACWA Executive Board Chair

Name, Title

EXHIBIT A

Scope of Work

EXHIBIT A
SCOPE OF WORK

Bay Area Clean Water Agencies (BACWA)
Compliance Support for 2024 Nutrient Watershed Permit

Task 1 - Project Management

The project management task encapsulates contract management and communication to BACWA and its members, as well as other stakeholders.

This project will be subject to HDR's project management guidelines for accounting, management, resources planning, quality assurance/quality control (QA/QC) protocols, and other management requirements.

The vision for project execution will be provided by our project manager, Mike Falk, who has demonstrated his ability to successfully work with BACWA, BACWA's contract management group (CMG), and your member agencies as the technical lead for the 2018 Nutrient Reduction Study, project manager for the 2023 Recycled Water Study, and a technical lead for the 2023 Nature-based Solutions (served as a subconsultant to San Francisco Estuarine Institute [SFEI]). For the 3rd WSP, Mike will work closely with Dave Clark to drive the technical vision for the project. The team will hold regular conference calls to discuss ongoing and upcoming work effort, schedule, and challenges or questions that need to be elevated to BACWA's CMG.

Mike will attend BACWA's most relevant monthly committee meetings to stay monitor ongoing efforts, as well as provide regular updates on project progress (as needed), and, more importantly, to solicit input and feedback at key milestones.

Other key milestones where we will solicit input and feedback include annual progress reporting requirements for each agency (submitted in 2026 and 2027), and the content and format to be presented for the overall progress reports submitted to BACWA and the Water Board thereafter. As we learned with the initial two WSPs, there will be a number of unanticipated questions and issues that will arise as the project progresses—we will actively engage with the CMG to identify and resolve these as quickly as possible.

Mike will also present an update to the BACWA Executive Board as needed on project progress. The first meeting will be in early 2025 to present and obtain feedback on the Draft Regional Scoping Plan, prior to submission.

Each update will focus on summarizing project progress, ongoing work, and activities remaining to be completed.

Task 2 - Group Annual Reports

The purpose of this task is to prepare the Group Annual Reports for 2025, 2026, 2027, and 2028.

HDR is NOT planning to send out a request for information (RFI) as in years past. Rather, HDR has developed a means to download data using a script developed specifically for use with the California Integrated Water Quality System (CIWQS) database. This approach is being utilized for this year's ongoing Group Annual Report. Following downloading the data and updating each agencies appendix, HDR will send both the appendix and data workbook to each individual agency for their review and sign off. This approach will streamline the burden on each agency as retrieving the RFI takes considerable time.

Following agency sign-off on data and appendix, HDR will then incorporate it into the main report. The complete draft report will be provided to BACWA for review and comment. HDR will draft an overall report for BACWA review by February 1 of each year (with a three-week review period). Comments will be sent directly to HDR with BACWA included on electronic exchanges. HDR will update and finalize the report and send to BACWA by mid-March for April 1 submission each year.

The key additions to the report since its inception in 2015 has been the inclusion of influent and recycled water data. The vision moving forward is to incorporate an executive summary that is graphics intensive with an emphasis on nutrient load reductions and ongoing/upcoming projects (plant specific, recycled water, and NbS).

Following submission of the final report (each year), HDR will support BACWA with preparation and presentation of materials at the Annual Retreat at Pardee (if needed) and HDR will subsequently present the information to BACWA's membership at the Annual Meeting (if desired).

Task 3 - Compliance Milestone Reports

The 3rd WSP requires annual compliance reports to update the Water Board on advancement towards compliance. The annual reporting will begin in 2025 through 2029 (n = 5 compliance reports).

The initial step is to implement the mechanism to obtain information from each agency. The previous WSPs have primarily relied on email exchange (with the exception of the NbS survey that SFEI implemented). The vision is to rely on a cloud-based survey similar to the NbS survey as a means to streamline information exchange.

Several of the medium to large projects have already been initiated (e.g., City of San Mateo, City of Palo Alto, Union Sanitary District, Oro Loma/Castro Valley, City of Sunnyvale), with several in design (e.g., City of Hayward).

Task 4 - Regional Scoping Plan

The Regional Scoping Plan will present the overall project roadmap. During the development of this plan, the needs and priorities of stakeholders are identified and discussed to produce a plan that is agreed upon by parties.

Our schedule plans for a quick start to the Regional Scoping Plan for the Water Board submittal, while allowing time for review by the members of the CMG. A detailed timeline of our proposed schedule to meet the regulatory deadline of July 1, 2025, was provided in Section 2 of this proposal.

With our experience on the initial two WSPs, our team understands what the Water Board is looking for and can quickly generate a draft document for review by the CMG and the BACWA Board.

Providing an early single draft document will allow time for thoughtful discussion so that the project is framed appropriately and meets the needs of stakeholders.

Similar to previous Scoping and Evaluation Plans, we anticipate conversations with the CMG on metrics to consider, as part of the 3rd WSP requirements. For example, reaching consensus on the financial alternatives and impacts on rates, as well as what to commit to for the compliance reports will be fundamental to a successful project.

Following the draft Regional Scoping Plan to the Water Board, HDR will present to the Water Board (similar to previous Scoping and Evaluation Plans) to summarize the vision and discuss concerns. Following support from the Water Board, the HDR team will finalize the Regional Scoping Plan for BACWA to submit to the Water Board.

Task 5 - Regional Dashboard (Optional)

A key aspect of the nutrient management strategy has been the preparation of outreach content to inform both the industry and the public. HDR has been instrumental in supporting BACWA through such efforts to date.

The vision is for HDR to continue such efforts while expanding public access through a regional dashboard on BACWA's site that might include the following:

- Interactive Regional Map that includes the 40 POTWs with the ability to filter by Subembayment, POTW (limited access to BACWA members), and Baywide.
- Group Annual Report data and up-to-date flows and nutrient loads.
- Items under the Regional Planning Study (refer to Optional Task 6):
    - Regional schedule (includes projects, impacts on nutrient load reductions.
    - Cross-media impacts, etc.).
    - Costs (both for projects and impacts on rates).
    - Progress reports.
- Water quality indexes (optional; if supported by science and data is available and easy to follow)

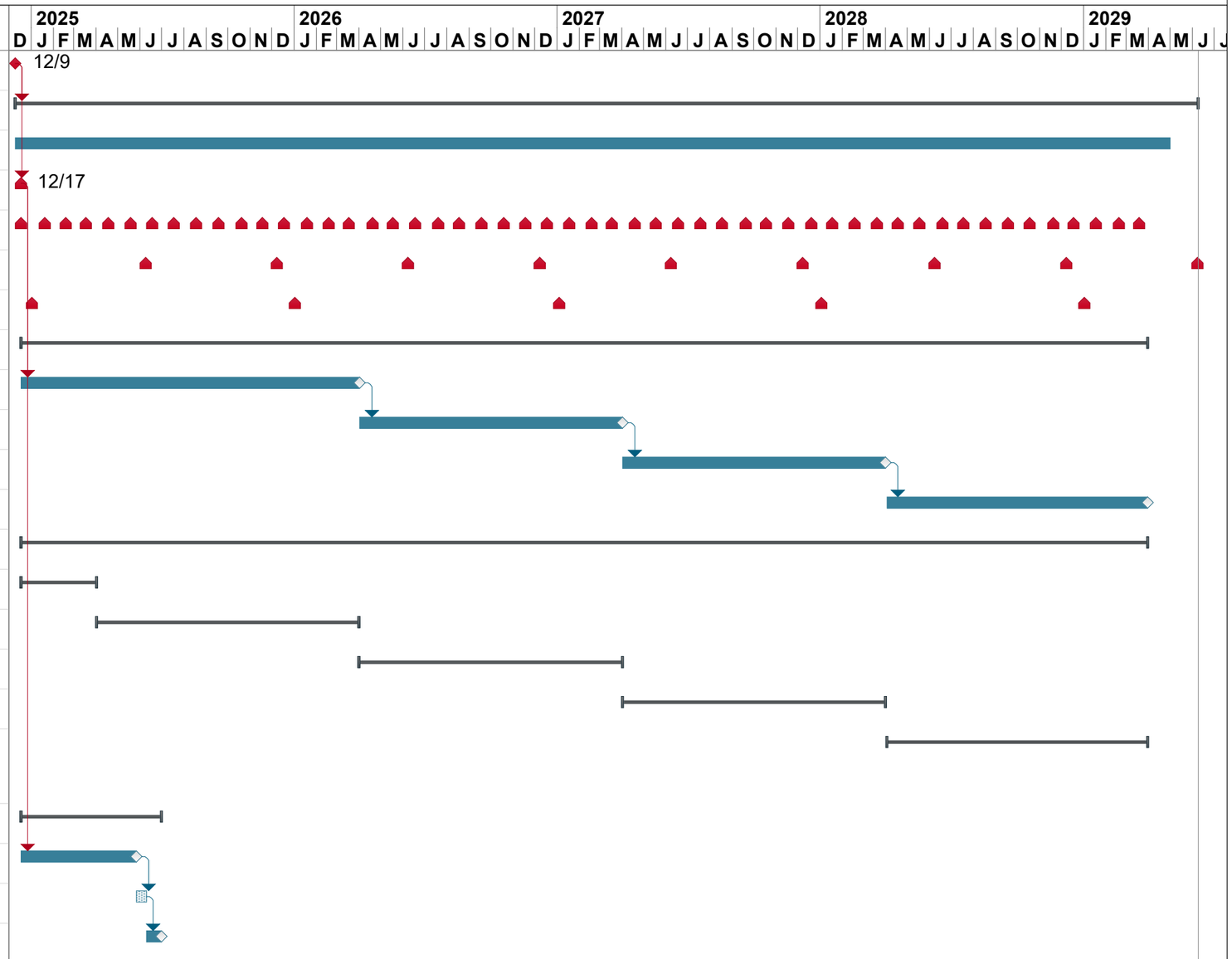
In terms of burden on BACWA, the flows and loads would automatically be updated each month, followed by manual compliance updates that would be done manually.

EXHIBIT B

Schedule

EXHIBIT B
SCHEDULE

Task Name	Start	Finish
Consultant Notice to Proceed	*12/9/24*	*12/9/24*
Task 1 - Project Management and QA/QC	**12/10/24**	**6/8/29**
Project Management	12/10/24	4/30/29
Kick-off Meeting	12/17/24	12/17/24
Contract Management Group Meetings	12/18/24	3/19/29
Update to BACWA Executive Board	6/9/25	6/8/29
Update to BACWA Membership	1/2/25	1/2/29
Task 2 - Group Annual Reports 2026-2029	**12/18/24**	**3/30/29**
2026 Group Annual Report	12/18/24	4/1/26
2027 Group Annual Report	4/2/26	4/1/27
2028 Group Annual Report	4/2/27	3/31/28
2029 Group Annual Report	4/3/28	3/30/29
Task 3 - Compliance Milestone Reports 2025-2029	**12/18/24**	**3/30/29**
Identify Compliance Alternatives	12/18/24	4/1/25
Perform Alternatives Analysis	4/2/25	3/31/26
Submit Compliance Plan	4/1/26	4/1/27
Submit Design Progress Report	4/2/27	3/31/28
Submit Design Progress Report and Compliance Update	4/3/28	3/30/29
Task 4 - Regional Plan Scoping Plan	**12/18/24**	**6/30/25**
Draft Scoping Plan	12/18/24	5/26/25
Review Period	*5/27/25*	*6/9/25*
Final Scoping Plan	6/10/25	6/30/25



BACWA
Compliance Support for 2024 Nutrient Watershed Permit

Task | Milestone | Summary | Meeeting

24-10415474

EXHIBIT C

Basis for fees

EXHIBIT C - BASIS FOR FEE

Bay Area Clean Water Agencies

Compliance Support for 2024 Nutrient Watershed Permit

Task No.	Task Description	Engr 5 / Tech Special	Project Manager	Engr 3	Tech Special 2	Engr 1	Project Controller	Project Coordinator	Total HDR Labor Hours	Total HDR Labor ($)	Total HDR Expenses ($)	Total Cost ($)
1	Project Management	44	64	0	0	0	100	12	220	$69,747	$2,000	$71,747
2	Group Annual Reports 2026-2029	0	180	60	0	480	0	40	760	$179,807	$0	$179,807
3	Compliance Milestone Reports 2025-2029	0	36	0	0	144	0	0	180	$38,601	$0	$38,601
4	Regional Plan Scoping Plan	8	100	0	0	32	0	4	144	$53,947	$0	$53,947
5	Regional Dashboard (Optional)	32	8	40	0	80	0	0	160	$43,454	$0	$43,454
TOTAL WITH OPTIONAL		**84**	**388**	**100**	**0**	**736**	**100**	**56**	**1,464**	**$385,555**	**$2,000**	**$387,555**
TOTAL WITHOUT OPTIONAL		**44**	**16**	**56**	**0**	**120**	**0**	**0**	**236**	**$342,101**	**$2,000**	**$344,101**

Regional Water Board

BACWA BAY AREA CLEAN WATER AGENCIES

Bay Area Pollution Prevention Group (BAPPG)

- Long-standing committee for regional coordination on pollution prevention
- Meets bi-monthly
- Led by a **Steering Committee** that meets monthly to craft meeting agendas and guide consultant teams working on pesticides, public outreach, and professional outreach.
- Participants from BACWA member agencies come from diverse backgrounds: pollution prevention, pretreatment, public education, outreach.
- Responsible for **Baywise.org**
- Outreach helps fulfill an **NPDES permit requirement**; smaller agencies may not be able to do this individually
- **Includes Regional Water Board and members outside of SF Bay Region 2**
- All BAPPG members are welcome at all BAPPG events (including steering committee)

BACWA Communications Steering Committee

- New ad hoc group that was formed to support value of wastewater messaging and nutrient-related outreach as directed by BACWA Executive Board. Provides guidance for directing Public Outreach contract with Civic Edge Consultants
- Not an official BACWA committee with chair/vice-chair, etc.
- Meets on an as-needed basis
- Outreach to media, NGOs, and public on general wastewater topics, such as the value of wastewater services and what they do
- Refers pollution prevention outreach topics of interest to BAPPG
- Provides content for Baywise website related to general wastewater topics
- **Does not fulfill an NPDES permit requirement**
- **Does not include Regional Water Board**
- Does not include members outside of Region 2
- All BACWA members are welcome to participate

Other BACWA Committees

- Refer pollution prevention outreach topics of interest to BAPPG
- All BACWA members are welcome to join any committee

2. Abstract

Water Resource Recovery Facilities (WRRFs) are evolving from simply meeting permit limits to proactively managing stricter effluent requirements and aligning with broader sustainability goals. As they navigate the balance between process optimization, energy efficiency, and GHG mitigation, a straightforward approach to addressing these trade-offs remains unavailable. Although methods like technology assessment, cost-benefit analysis, and life cycle assessment aid utilities in selecting optimized treatment processes, they often lack a systematic way to align sustainability goals with technologies and infrastructure.

The objective of this project is to develop a framework and decision-support tool to evaluate trade-offs between process optimization, energy efficiency, and GHG mitigation for medium- and long-term planning. A web-based, interactive visualization tool will allow users to input site-specific metrics and, using validated benchmarks, generate preliminary comparisons of optimization and infrastructure alternatives with embedded uncertainty analysis. Key features will include mathematically defining KPIs for each module (process optimization, GHG mitigation, and energy efficiency) and evaluating these at a granular, process level, ensuring scalability and applicability across diverse utilities. Comprehensive data collection from projects led by our team and partnering utilities will validate and refine the framework through pre- and post-implementation phases, supporting a balanced assessment of economic costs, energy savings, and emissions reductions.

The final product will include:

- Literature synthesis document, including a summary of mathematical process modelling on GHG emissions.
- A user-friendly web-based decision tool for process optimization, greenhouse gases mitigation, and energy efficiency
- A utility facing guidance document, including design and operational guidelines for minimizing GHG emissions.

The results of this research project will be directly applicable to utilities and agencies that are either beginning to enhance treatment processes to meet optimization and sustainability goals or facing challenges from upcoming effluent standards. Our team will develop clear guidance and an easy-to-use tool to support implementation. The research team will be led by Black & Veatch and further supported by HDR, and Hazen and Sawyer.

Principal Investigator (PI): Christine deBarbadillo

Co-PIs: Francesca Cecconi, Michael Falk, Blair Wisdom

Utility Partners: City of Baltimore, Bay Area Clean Water Agencies, California Association of Sanitation Agencies, Clean Water Services, DC Water, Hampton Road Sanitation District, NEW Water, Metropolitan Water Reclamation District of Greater Chicago, South Platte Renew, and Washington Sanitary Suburban Commission

Requested Funding Award: $199,729

Total Cost Share: $108,635

Third-Party In-kind Contribution (Utilities): $99,676

Date: 10/16/2024

Prepared by: Michael Falk, PhD, PE

Reviewed by: Dave Reardon, PE
Bill M'Coy, PE

Project: BACWA 3rd Watershed Permit Support

SUBJECT: HYPOTHETICAL SCHEDULE TO MEET THE 3RD WATERSHED PERMIT

Introduction

The recently adopted third nutrient watershed permit (R2-2024-0013) for San Francisco Bay wastewater treatment plants requires compliance with final effluent limitations by the 2035 dry season (May to October 2035). The permit requires a 40 percent baywide aggregate total inorganic nitrogen (TIN) load reduction compared to the 2022 dry season values. A fundamental question is whether the Bay Area's publicly-owned treatment works (POTWs) will be able to select a TIN reduction technology, evaluate the technology for their POTW (if required), design, construct, and commission such a facility within the allocated timeline. For POTWs considering multi-benefit regional projects, the ability to secure agreements for such projects could exacerbate the challenges with meeting such schedule requirements.

This brief memorandum is intended to present a hypothetical schedule regarding the various steps associated with such a schedule. NOTE: this schedule is based on a POTW considering an emerging/innovative technology due to the potential benefits (e.g., footprint, energy efficiency, reduced chemical use, cost savings, etc.).

Selecting an established technology does have the potential to accelerate the schedule, but it might come at a cost in terms of footprint, energy, chemicals, adaptability for lower limits, etc. Given the urbanization of the Bay Area, a more established technology (e.g., modified ludzack-ettinger (MLE)) that requires a larger footprint might not fit within existing site plans. In such instances, it is anticipated that agencies will evaluate various "intensification" technologies that have the potential to do more within existing assets. Regardless, removal of the test phase would still take more than 10 years to complete from planning through commissioning.

Results & Discussion

A hypothetical schedule to meet the adopted nutrient load limits in the third watershed permit is grouped into four different phases as follows:

- Phase 1: Planning (approximately 2-3 years)
- Phase 2 (if needed): Testing (approximately 3-4 years)
- Phase 3: Design (approximately 3 years)
- Phase 4: Construction, Startup, and Commissioning (approximately 5+ years)

A visual depiction of these four phases is provided in Figure 1. To meet the nutrient load limits, a POTW needs to select a technology, confirm the technology's ability to reliably meet such TIN limits

at their respective facility (both current and potential future requirements), design, construct, and commission the technology.

In parallel with all four phases, there are other elements that are essential for project(s) success and implementation:

- **Funding and Financing:** this considers both securing grants and various external funds (e.g., WIFIA), as well as performing rate studies to determine whether rate increases will be required to fund the effort.
- **Environmental and Permitting:** this covers the potential for California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) for permitting. The requirement will be largely dependent on the type of project. As for permitting, POTWs will be required to comply/renew any on-going treatment type permits in parallel with this effort, as well as securing any new permits associated with the upgrades.
- **Stakeholder Outreach:** Given the scale of the anticipated nutrient reduction upgrades, stakeholder outreach will be essential for project success.

Details for each phase are provided in the subsections that follow. Furthermore, there is a subsection titled “Other Scheduling Challenges/Constraints” after the four phases that covers other elements which might impact schedule.

Phase 1: Planning

To perform the planning, each POTW will likely procure a consultant in most cases under a competitive request for proposals (RFP) process. The RFP process can take several months as the POTW needs to draft the RFP, followed by in most cases board approvals, followed by proposal submittals, consultant selection, and contract execution. Such a process can last anywhere from a two to six months. The basis for such a range is the RFP tasks can require a visioning period as the POTW develops the list of tasks, followed by a sufficient timeline for consultants to propose/interview process, and legal review.

Following consultant selection, the team will need to identify a list of potential alternatives, develop facility needs for the various alternatives, screen alternatives, and select a preferred alternative(s) to carry forward. Such a decision-making process can take as long as 24 months as the consulting firm(s) will need to provide POTW specific results and there will need to numerous workshops to screen the alternatives. A workshop setting is desired with such an effort as the voices from the various stakeholders need to be incorporated into the decision-making process. Otherwise, the POTW is at risk of not weighing the perspectives that are critical for a successful project. As such, workshops take time due to full calendars coupled with having sufficient time in between each workshop to perform the required work.

A key element that will require thoughtful consideration while comparing/contrasting technologies is adaptability if future load limits are lower.

Phase 2: Testing

A testing phase is included for two fundamental reasons:

1) Develop POTW specific design criteria for the technology(s) carried forward from Phase 1. While one can argue that it might not be required for all technology(s), it is highly recommended for emerging and innovative technologies.
2) Regional information sharing as POTWs across the Bay test different technologies. This information sharing could be invaluable for risk management as POTWs strive to advance technologies that have the potential to reduce footprint, energy, chemicals, greenhouse gas (GHG) emissions, etc.

As previously noted, POTWs would likely evaluate various intensification technologies that would fall under emerging/innovative technology status. If such technologies are carried forward due to their associated benefits, most POTWs would perform a testing phase to inform design criteria and verify/validate vendor performance claims.

Technology status classification according to criteria developed by Tetra Tech (2013)[1] is provided in Table 1. Many of the more progressive technologies have been conceived and established in Europe, particularly deammonification. Asia has been quick to adopt these progressive technologies. North America has been slower to adopt the cutting-edge technologies in wastewater treatment.

The testing scale/duration is largely predicated on technology status and testing questions. If technology testing is carried forward, the POTW might need to go through the procurement process if the effort is led by a team different from the planning. Such an effort would likely be carried out via the RFP procurement process which can take upwards of six months as previously noted in Phase 1.

If the focus is to merely perform a treatability study, the scale might be limited to a bench- and/or pilot-scale at less than 5 gallons per minute (gpm) to confirm that the technology does as it is advertised. In contrast, if the focus is on developing design criteria as the technology has never been used in this application it might take a larger scale.

A case study that illustrates the sequential steps associated with testing duration and the various scales is the recently completed EPA Regional Grant at Oro Loma/Castro Valley Sanitary District (OLSD) that evaluated the Microvi Biocatalyst technology.[2] At the onset, the Microvi technology was “emerging” according to Table 1 as the technology had been used outside the US, but it had little or no testing in the US. Given the “first of its kind” in the US, OLSD underwent a methodical progression of testing as illustrated in Figure 2. Specifically, the OLSD experience took multiple years as it began at the lab-scale for treatability purposes, followed by pilot-scale at a few gpm to

[1] USEPA (2013) Emerging Technologies for Wastewater Treatment and In-Plant Wet Weather Management. EPA Grant Number 832-R-12-011. Prepared by Tetra Tech and Project Partners. USEPA, Washington, DC.
[2] HDR (2022) San Francisco Bay Nutrient Removal: Implementing Next-Generation Biological Sidestream Treatment at Oro Loma Sanitary District Wastewater Treatment Plant. Final Report: EPA Region IX Grant. San Francisco, CA

evaluate how the technology dealt with diurnal and seasonal variability, as well as ammonia removal rates. And lastly, OLSD tested the technology at the demonstration-scale within an unused tank to validate the technology. Overall, the effort took two and a half years to complete from lab-scale to demonstration-scale.

Phase 3: Design

Upon completing the planning efforts (i.e., Phases 1 and 2), the POTW likely needs to undergo another procurement process to select the designer. Similar to Phases 1 and 2, this process might take upwards of six months to implement.

The design of such facilities has numerous milestones with the delivery/review process. The initial deliverable is typically referred to as the “Facility Plan” and/or “Preliminary Design Report”. Such reports are typically viewed as 10 to 15 percent of the design. As with each phase, there is an owner review period, followed by addressing any outstanding comments and finalizing the report. Also, a Value Engineering (VE) study should be performed at this stage. Typically, the Preliminary Design Report and VE are performed over a 9 to 12 months.

The next progression is the final design which has various milestones (e.g., 30, 60, 90, and 100 percent drawings and specifications) that require a reviewing period, followed by review meetings to reach consensus on any outstanding comments and/or concerns. The final design duration for delivering complex nutrient upgrades is approximately 15 to 18 months. Early in the final design period, geotechnical studies must be completed to collect subsurface data and develop foundation design criteria. Also, additional value engineering studies are typically performed which can add several months to the design schedule.

A recent Bay Area example is the City of San Mateo’s upgrades from secondary treatment to nutrient removal using the membrane bioreactor (MBR) technology. The timeline from beginning the 30 percent to submitting the 100 design was approximately 18 months. While this example represents a complex sequencing effort to keep the plant in operation while constructing the upgrades, several nutrient upgrades in the Bay Area will face similar sequencing challenges.

Phase 4: Construction, Startup, and Commissioning

Following design and funding, the POTW should be ready to bid the project (if traditional design, bid, build practices). Such an effort requires the POTW to gain board approval following the 100 percent design, followed by advertising, and evaluating the bids. Upon selecting a contractor, the POTW will need to go through contracting prior to starting construction. This procurement process is similar to procuring a consultant as noted in Phases 1 through 3.

The initial step in Phase 4 is the construction step. Construction period for a major plant upgrade will be at minimum 3.5 years. To date, the City of San Mateo MBR has been under construction for over 3 years, and it is expected to be completed in 2025.

Following construction, the startup and commissioning step can vary greatly in the case of biological processes as is the case for nutrient reduction upgrades. In most cases, startup and commissioning will range from 6 to 12 months. For example, SacSewer’s recent EchoWater upgrades took nearly 12 months to transition from the existing high purity oxygen (HPO) tanks to the new 5-stage biological nutrient removal process.

Other Scheduling Challenges/Constraints

Besides the aforementioned items under Phases 1 through 4, there are other inherent schedule challenges that might require additional time, such as:

1) **Technology Information Sharing amongst POTWs:** a cornerstone of the regional nutrient management strategy to date has been collaboration amongst POTWs, regulators, scientists, and non-government organizations (NGOs). Continuing such collaboration is fundamental to advancing long-term regional solutions. From a technology perspective, it is critical that POTWs share any information gleaned from testing emerging and innovative technologies, regardless of scale (i.e., bench-, pilot-, demonstration-, and/or full-scale).
   As noted in Phase 2, it will take years for POTWs to develop experimental test plans, implement such plans, host open houses, write up reports summarizing the findings, and disseminate relevant findings amongst the POTWs. Such information sharing is essential for advancing regional solutions. While this element is included in Phase 2 of the hypothetical schedule, it is also included in this subsection as the duration is fluid as testing schedules are not necessarily aligned.
2) **Legal:** for large-scale upgrades such as those anticipated with the third watershed permit, the legal discussions revolving around terms and conditions between the owner and planner/designer can delay efforts for months. Under worst-case circumstances, this might require a POTW to restart the process in the event that the consultant, vendor, and/or contractor can not reach terms and conditions.
3) **Environmental:** the scale of such upgrades might require the California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) permitting. The findings from such efforts have the potential to delay project implementation to address any pitfalls. The extent of such delays is case specific and unclear until the problem is identified and a solution developed.
4) **Contractor Labor/Equipment/Materials Availability:** as numerous projects advance in a similar timeline across the Bay, there are concerns over contractor availability. Specifically, there are concerns over skilled labor availability, having sufficient equipment available to implement such construction (e.g., cranes), and materials available simultaneously.
   A prime example that speaks to this challenge is the schedule delay on concrete with the recent upgrades at the $1.7 Bil EchoWater Project for SacSewer. During construction ramp up, the Oroville Dam emergency dam work delayed the EchoWater Project approximately six months as all the allocated concrete was consumed by the Oroville Dam work as it was a higher priority in the region.

5) **Equipment Lead Times:** since COVID19, various pieces of equipment within the wastewater industry have been challenging to secure in a timely manner. For example, the lead time on securing relatively general electrical equipment has been as extreme as 1-2 years for equipment (e.g., substation transformers, various valves, pipes/fittings, etc.). While the issue seems to be improving, it is unclear what the future holds. As such, the industry needs to have our “eyes wide open” on what the impacts might be if equipment lead times worsen in the future.
6) **Maintenance of Plant Operations (MOPO) Elongated Construction Schedules:** as POTWs navigate how to keep the existing plant operational during construction to maintain NPDES limits, they typically develop a MOPO to define the construction sequence. The findings from such MOPO’s will define how many construction seasons are required to implement upgrades.
   It is expected that the number of construction seasons could be longer than expected as upgrades as significant as nutrient reduction are often complex that require bypasses, shutdowns, etc. that are limited to the dry season.
7) **Regional Multi-Benefit Projects:** as POTWs consider regional solutions, the two areas that routinely rise to the top are nature-based solutions (NbS) and recycled water as captured in the second watershed permit deliverables. While attractive for addressing challenges beyond nutrients (e.g., sea level rise for NbS and water supply for reuse), such regional multi-benefit projects can take longer than traditional compliance driven projects due to scheduling outside of a POTWs control (e.g., agreements between multiple parties), as well as implementation timelines that might differ from the third WSP.
8) **Risk Management:** as Bay Area utilities seek innovative nutrient management solutions that balance compliance reliability with the potential to reduce technology footprint, energy, chemicals, and others, there is the potential risk that a technology might not meet the anticipated results. In such instances, POTWs should perform testing to verify and validate technology vendor claims specific to their plant/region. Such findings should be shared with POTWs across the Bay as previously discussed for Phase 2.
   Another relevant example is for a POTW considering a nature-based solution that could struggle to reliably meet the anticipated nitrogen reduction goals. In such instances, the POTW will need to modify their plans for meeting TIN load caps and consequently struggle to meet the compliance schedule.
9) **Fourth Watershed Permit:** the fourth watershed permit is anticipated in 2029. The findings associated with the third watershed permit, as well as the health of the Bay should inform the fourth watershed permit findings. The TIN load limits could be more stringent than those associated with the third watershed permit. The extent of such a reduction is unclear. As

agencies select an adaptable technology that lends itself to lower limits, this also might require testing to verify/validate technology claims.

10) **Permitting:** as POTWs transition towards construction, there are dozens of required permits (e.g., air emissions) that have the potential to delay the startup and commissioning of nutrient reduction upgrades. The extent of such a reduction is highly dependent on the particular permit that is delaying the project.
11) **Contractor Availability/Pricing:** given the scale of such upgrades across the Bay, there are concerns about contractor availability, emphasis on skilled laborers. This could translate to longer construction timelines, as well an increase in construction pricing. Profound cost increases could delay projects as POTWs secure the funding to finance such large projects.
12) **Miscellaneous:** miscellaneous refers to items not already captured that might delay projects. For example, as POTWs deal with aging infrastructure, there might be a situation where keeping a plant operational due to failed equipment might delay construction of nutrient reduction upgrades.

Summary and Discussion

Overall, as POTWs develop their schedule for meeting the nutrient reduction requirements by May 2035, the schedule could take longer than the allocated 10 years. This memorandum identifies the approximate duration for each phase from planning through commissioning, as well as identifying other potential issues that might further delay project implementation.

A key feature of this implementation schedule is the inclusion of a test phase. This was included to i) serve as a means to develop POTW specific design criteria and ii) share information amongst the Bay Area POTWs and beyond. While this phase might not be required for every technology per se, allocating time for technologies that warrant such testing would generate invaluable industry data for Bay Area POTWs and beyond. Such information sharing would help manage risk as the data generated might provide the confidence to select a technology that otherwise would not be selected.

Even if the testing phase is excluded, the overall effort would still take approximately 10 years to complete from planning through commissioning (based on Figure 1).

Overall, the listed durations are simply approximations based on engineer's best judgment. It is expected that there will be instances where each phases duration will take significantly less time than listed and vice versa. The intent was to showcase how long each phase might take. It is recommended that each POTW develop their own specific implementation schedules to confirm the required implementation duration.

The Page Intentionally Left Blank

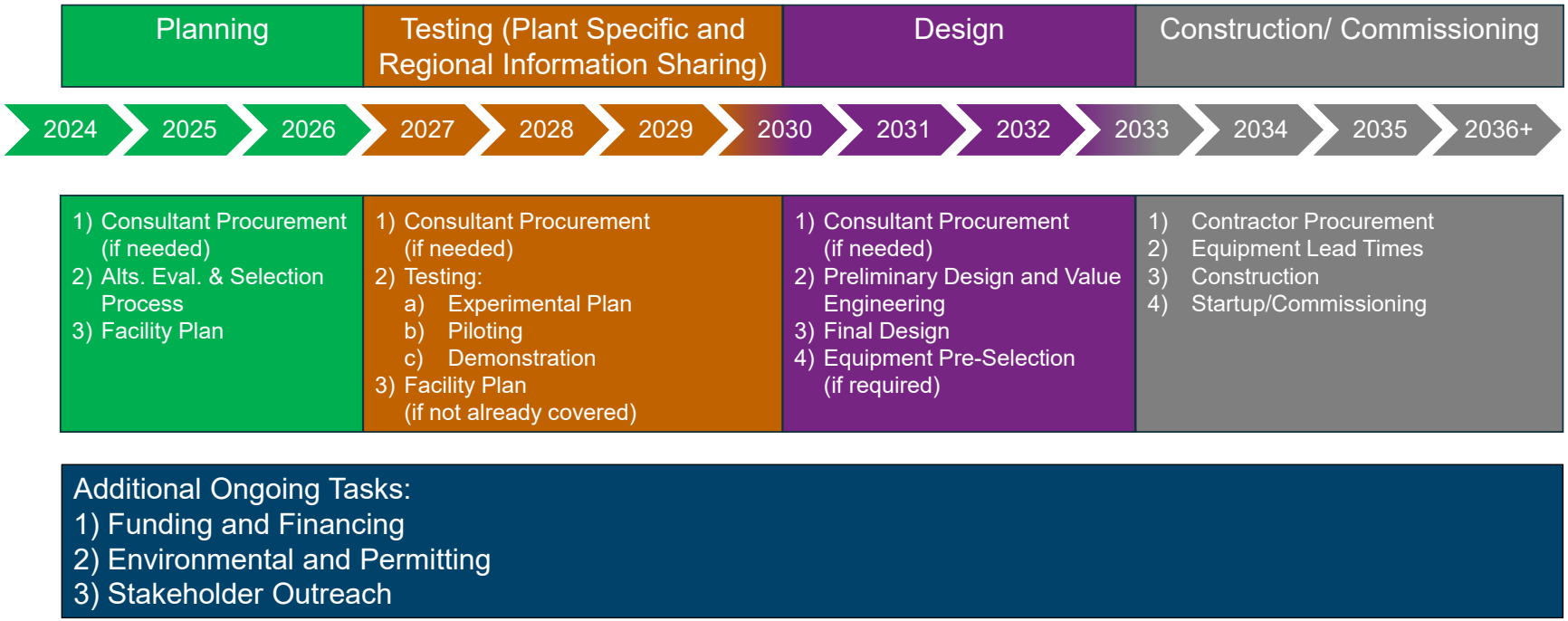


Figure 1. Illustration of the Four Phases Associated with Planning through Commissioning a POTW for Nutrient Removal *,**

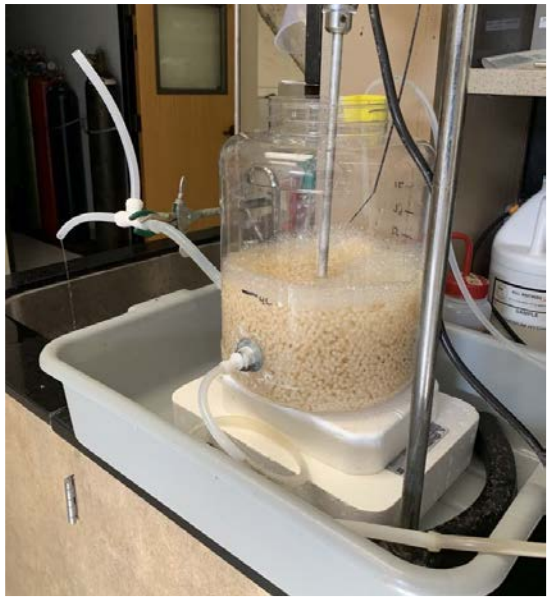
* The 4th WSP will come out in 2029. The limits and compliance schedule might need to be modified accordingly.

** Additional hypothetical challenges that could delay the schedule as noted in the main body: i) technology information sharing amongst POTWs, ii) legal review, iii) environmental, iv) contractor labor/equipment/materials availability, v) equipment lead times, vi) maintenance of plant operations elongated construction schedules, vii) regional multi-benefit projects, viii) risk management/sharing, ix) 4th watershed permit, x) permitting, and xi) miscellaneous (e.g., competing demands).

Table 1. Technology Status Classification Definition (Tetra Tech, 2013)

Technology Classification	Definition	Bench-Scale Testing	Pilot-Scale Testing	Demonstration-Scale/ Full-Scale Installations	Comment
Established	Technology used at >1 percent of full-scale facilities (150) in the US	Yes	Yes	Yes	May include technologies that are widely used although recently introduced in the US
Innovative	Technology that meets one of the following criteria: • Some degree of initial use (i.e., <1% full-scale facilities (150) in the US • Available and implemented in the US for <5 years • Established overseas	Yes	Yes	Yes	
Emerging	Technology has been tested at a pilot- or demonstration-scale, or has been implemented at full-scale	Yes	Yes	Yes	
Research	Technology is at the development stage and/or has been tested at laboratory- or bench-scale.	Maybe	No	No	Technology that has reached demonstration-scale overseas are considered to be research technologies for US applications

[a] Might be limited to outside the US
[b] ≤3 installations or operated for <1 year



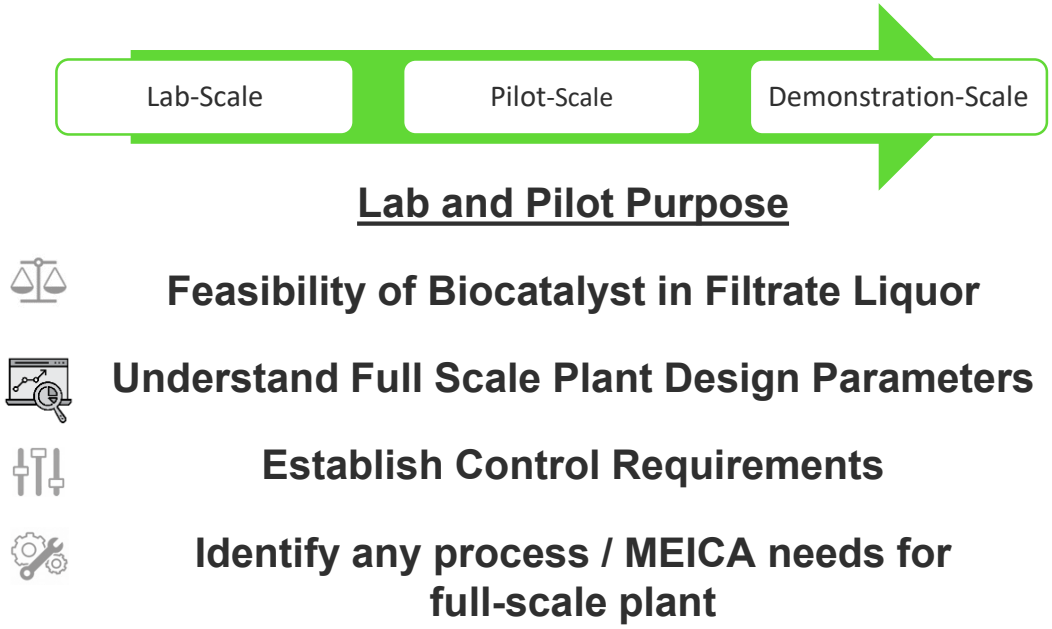
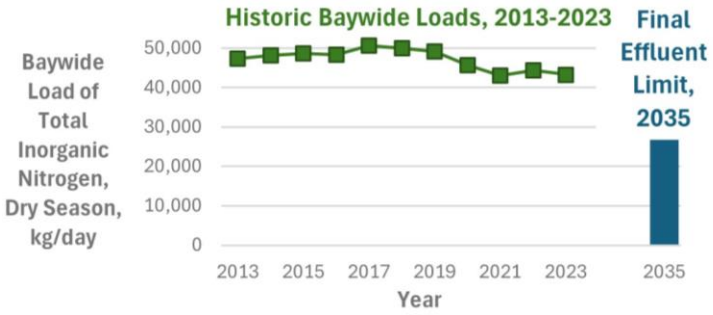


Figure 2. Illustration of the Progression from Lab-Scale to Full-Scale Demonstration at Oro Loma/Castro Valley Sanitary District

The Page Intentionally Left Blank

In 2024, the SF Bay Regional Water Board reissued the Nutrient Watershed Permit (R2-2024-0013), which profoundly impacts many Bay Area wastewater dischargers. The Permit contains an aggregate Total Inorganic Nitrogen (TIN) load for Publicly-Owned Treatment Works (POTWs) discharging to San Francisco Bay. These aggregate dry season limits are 40 percent lower than the 2022 dry season load. Some agencies will need to reduce loads by up to 70 percent, while others will not be impacted by the new limits.

The final load TIN load limits will be in effect starting in the 2035 dry season (May – Sept), which means wastewater dischargers have about 10 years to come into compliance.



This infographic explains why some wastewater agencies planning for compliance with the Nutrient Watershed Permit will need more than 10 years to achieve load reductions.

For agencies that are planning treatment upgrades to remove TIN, key schedule considerations include:

Site Constraints
The Bay Area is urbanized. Many POTWs do not have space for established technologies like the Modified Ludzack-Ettinger (MLE) nutrient removal process.

Cost and Financing
POTWs are public agencies, and customer affordability is a major concern. Since State and federal funding is limited, POTWs must choose cost-effective options.

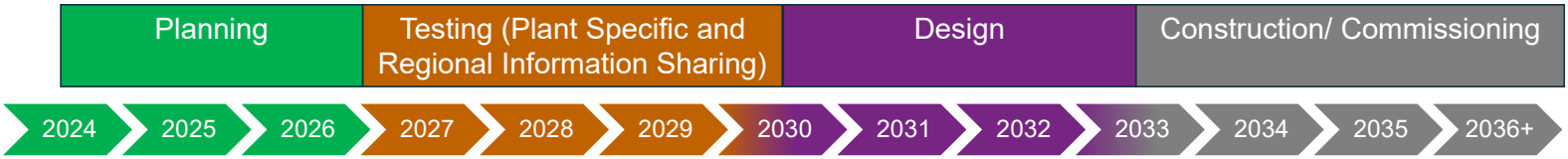
Risk Aversion
To responsibly use public funds, POTWs must choose projects with a high likelihood of success. New technologies will require extensive testing.

Intensification Technologies
Because of these constraints, many Bay Area POTWs are likely to rely on **intensification technologies** that have the potential to remove nutrients by modifying existing assets, rather than by constructing expensive, all-new treatment trains. Many of these intensification technologies, such as Membrane-Aerated Biofilm Reactors (MABRS) and deammonification processes, are still **emerging technologies** with most full-scale installations in Europe and Asia.

A hypothetical intensification project to meet the final load limits is expected to include four phases:

- Phase 1: Planning (2-3 years)
- Phase 2: Testing (3-4 years)
- Phase 3: Design (3 years)
- Phase 4: Construction, Startup, and Commissioning (5+ years)

Other Elements to be completed in Parallel:
- Stakeholder Outreach
- Funding
- Environmental, such as CEQA and air permits



Each of these four phases is discussed below in greater detail.

1. Planning
Duration: 2-3 years

POTWs need to identify a list of alternatives, develop facility needs for the various alternatives, screen alternatives, and select a preferred alternative. Most POTWs will complete this work with assistance from a consultant selected through a competitive process (Request for Proposals or RFP), which typically adds 2-6 months to the project schedule. The planning process can take as long as 24 months and often involves numerous workshops to incorporate the views of stakeholders including managers, operators, Board members, partner agencies, ratepayers, and neighbors. Two key considerations for selecting the preferred alternative are the adaptability if future load limits are lower and comparing treatment upgrade options with multi-benefit projects.

Planning	Testing (Plant Specific and Regional Information Sharing)	Design	Construction/ Commissioning

2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036+

2. Testing Duration: 3-4 years

Testing is strongly recommended for emerging and innovative technologies. The testing phase informs design criteria and verifies vendor performance claims. Testing can happen at different scales, all the way from bench testing in a laboratory, to pilot scale testing at a few gallons per minute, to demonstration scale testing using large tanks or split stream treatment.

Like the planning phase, this phase is often carried out by a team selected through a competitive RFP procurement process, adding six months to the schedule.

Regional information-sharing across the Bay Area is needed to advance technologies with the potential to reduce footprint, energy use, chemical use, or greenhouse gas emissions.

Pilot test of MABR at Central San

Pilot test of Microvi biocatalyst at Oro Loma

3. Design Duration: 3 years

The design phase typically includes several key milestones:

- **Geotechnical studies** are crucial since many Bay Area POTWs are located near the Bay margin.
- **Preliminary Design** producing with a Facility Plan or Preliminary Design Report at about 10% - 15% design.
- A **Value Engineering** study to address project costs.
- **Final design** milestones (e.g., 30%, 60%, 90% and 100%).

Like the planning and testing phases, this phase is typically carried out by a consultant team selected through a competitive RFP procurement process.

4. Construction, Startup, and Commissioning Duration: 5+ years

Once design is complete, funding is in place, and all permits are in hand, the POTW should be ready to put the project out for a competitive bid. After a qualified contractor is selected, the project can move forward into the construction phase, which typically takes several years. Construction is often limited to narrow windows during the dry season since wastewater treatment plants must remain operational even during construction.

Following construction, the startup and commissioning step can take up to a year.

This project phase is highly susceptible to delays due to shortages of contractor labor, equipment, and materials.

Summary

Bay Area POTWs are moving forward with projects to meet the nutrient reduction requirements of the 2024 Nutrient Watershed Permit. Many agencies will be relying on intensification technologies that allow treatment plants to maximize their use of existing assets, but these emerging technologies require testing before moving forward into construction. More information about intensification technologies was shared at the September 2024 workshop on Nutrient Removal in Bay Area Water Reclamation Facilities. https://bacwa.org/nutrient-seminar/

Projects that require all four project phases – **planning, testing, design, and construction** – are expected to take more than ten years to complete. Currently, there are individual Bay Area POTWs in each of these four phases, and some have already completed construction.

Bay Area POTWs are also incorporating multi-benefit projects into their nutrient removal plans. Multi-benefit projects, including recycled water and nature-based solutions, also require long lead times for coordination with partner agencies such as drinking water, flood control, and natural resource agencies.

Case Studies

Project schedules for several ongoing nutrient removal upgrades at Bay Area POTWs include:

- Union Sanitary District Enhanced Treatment & Site Upgrade – 14 years, including 9 years for construction
- City of Palo Alto Secondary Treatment Upgrades – 17 years, including 6 for construction
- City of San Leandro Treatment Wetland Project – 9 years, with 1-2 years for construction
- City of San Mateo Clean Water Program – More than 10 years, including 4 for construction

BACWA BAY AREA CLEAN WATER AGENCIES

This summary was prepared by BACWA with assistance from HDR. For the full memo, see https://bacwa.org/nutrients/

November 18, 2024 Note from BACWA Staff:

To gain a non-competitive grant from the USEPA SF Bay Program Office, a memo to justify the rationale must be developed. BACWA is acting as ghostwriter for this early conceptual draft.

This draft memo has been shared for feedback with EPA staff. Once we incorporate their feedback, it would be circulated internally within USEPA (from Region 9 to HQ) to obtain approval for a noncompetitive grant from the SF Bay Program Office. The intent is for a grant to be awarded to BACWA, and to its members as subgrantees, for tasks related to implementation of the Nutrient Watershed Permit.

This version was modified after the October 18th Executive Board with the intent of capturing the discussion from that meeting. Per EPA staff, funding availability for FY25 is uncertain, and we will know more later this year once Congress' continuing resolution terminates.

November XX, 2024

MEMORANDUM

SUBJECT:	Justification of Non-Competitive Award to Bay Area Clean Water Agencies (BACWA) for work on Nutrient Management in San Francisco Bay in accordance with Section 12.a.(6) of EPA's Policy for Competition of Assistance Agreements ("Competition Policy" or "Policy") - EPA Order 5700.5A1
FROM:	Martha Guzman, Regional Administrator, Region 9
TO:	Elizabeth January, Grants Competition Advocate, Office of Grants and Debarment

The Environmental Protection Agency (EPA) Region 9 San Francisco Bay Program (SF Bay Program) requests approval to issue a non-competitive grant to the Bay Area Clean Water Agencies (BACWA; UEI ############) based on the public interest exception (Section 12.a.(6)), of EPA's *Policy for Competition of Assistance Agreements* (EPA Order 5700.A1).

I. Background

The SF Bay Program administers competitive grants under the San Francisco Bay Water Quality Improvement Fund (SFBWQIF) that protect and restore San Francisco Bay. This proposed grant will support work to advance the speed and scale of nutrient load reductions from publicly owned treatment works (POTWs) to San Francisco Bay (SF Bay).

The proposed work is focused on planning and implementation of dry season Total Inorganic Nitrogen (TIN) load reductions from POTWs. Significant load reductions of this type are a critical

piece of nutrient management in SF Bay, as outlined in the San Francisco Bay Nutrients Watershed Permit for Municipal Wastewater Dischargers (Order R2-2024-0013) adopted by the San Francisco Bay Regional Water Quality Control Board (Water Board) in July 2024. Nutrient Management is identified as one of the eleven priorities of the SF Bay Program's fiscal year (FY) 2024 Annual Priority List. Pursuant to Clean Water Act Section 125, 33 U.S.C. § 1276a, the EPA drafts an annual priority list which is vetted through a stakeholder process and finalized by the EPA.

BACWA is a local government agency created by a joint powers agreement in 1984. Our membership includes local clean water agencies that provide sanitary sewer services to seven million people living in the nine county San Francisco (SF) Bay Area. BACWA was founded, and continues, to assist agencies in carrying out mutually beneficial projects, and to facilitate the development of scientific, economic and other information about the SF Bay environment and the agencies that work to protect it and public health.

Municipal wastewater treatment plants account for about 86 percent of the average dry season total nitrogen load to SF Bay (see Table F-5, R2-2024-0013). Most of the remaining nitrogen load comes from upstream in the Bay Delta. For over twelve years, BACWA and its members have supported scientific investigations into the impact of nutrient discharges to SF Bay. Unlike other estuaries around the world, SF Bay has been historically resilient to algal blooms due to high turbidity, tidal mixing, and clam grazing. However, in the summer of 2022, a large harmful algal bloom in the Bay resulted in a significant fish kill, and a smaller harmful algal bloom reoccurred in the summer of 2023.

The Water Board first issued a Nutrient Watershed Permit in 2014 that covered 40 POTWs that discharge to SF Bay. The permit required nutrient monitoring and reporting, financial support for scientific studies on the impacts of nutrients to the Bay, and a special study that identified opportunities for nutrient reductions via optimization, upgrades and sidestream treatment at POTWs. The second Watershed Permit was issued in 2019, and required continued nutrient monitoring and reporting, increased financial support for scientific investigations, and special studies to identify opportunities for nutrient reductions via recycled water and nature-based systems. Neither of the first two Watershed Permits included requirements for nutrient load reductions (i.e., effluent limitations) by the POTWs.

In July 2024, the Water Board issued the third Watershed Permit (R2-2024-0013), which took effect October 1, 2024. The Watershed Permit sets forth requirements for an aggregate dry season TIN load reduction of forty percent for the POTWs, along with a 10-year compliance schedule to achieve those reductions. The load reductions are allocated to individual agencies based on current performance. Agencies with dry season discharge prohibitions are excluded from the load limitations.

In addition to load limitations, the Watershed Permit requires monitoring and reporting of flows and nutrient loads, reporting of milestones towards compliance with the final limits, and development of a Regional Plan that details efforts to come into compliance with the final effluent limitations and identifies alternatives to achieve lower limits, should they be required in future permits.

To support its member agencies, BACWA plans to lead the preparation of reports required by the third Watershed Permit. This effort will include preparation of Group Annual Reports, which will

compile flow and nutrient load data and progress updates on the 10-year compliance schedule. The effort will also include preparation of a Regional Plan, beginning with a scoping plan due July 1, 2025. As required by the Watershed Permit and envisioned by BACWA, the Regional Plan will identify both current strategies and future opportunities to reduce TIN loads to SF Bay. It will also include development of a trading framework consistent with U.S. EPA's 2003 Water Quality Trading Policy.

This BACWA-led approach is consistent with the work BACWA has done to comply with the two previous Watershed Permits. The BACWA website includes previous Group Annual Reports, the optimization and upgrade Special Study required by the first Watershed Permit, and links to the recycled water and nature-based solutions Special Studies required by the second Watershed Permit.

BACWA is the sole regional organization that is managed entirely by POTWs and carries out programs of mutual interest on their behalf. Approval of this exception will support BACWA-led cooperation among wastewater agencies on regional nutrient load reduction efforts. The goal of this cooperation is to identify opportunities to reduce and equitably distribute the cost of compliance among Bay Area wastewater agencies using three tools:

A. Regional planning to reduce nitrogen loads
B. Development of a nutrient trading program framework
C. Direct grants to BACWA member agencies implementing nutrient reduction projects

EPA expects work under the SF Bay Program to benefit underserved communities and meaningfully involve affected communities experiencing adverse and disproportionate environmental harm and health risks and will ask sub-grantees to track such progress.

II. Summary of Proposed EPA-funded Grant

Subject to the availability of anticipated EPA funding, the proposed noncompetitive grant will total $XX million to be incrementally funded to BACWA over a 5-year project period. The SF Bay Program expects the initial outlay for the grant to be $X million of FY25 funds with a ceiling of additional funding in subsequent years up to a total of $XX million. The statutory authority for these grants is the Clean Water Act, Section 125, 33 U.S.C. § 31276a. The Assistance Listing number is 66.126. Funds will support the EPA's FY 2022-2026 Strategic Plan, Goal 5: Ensure Clean and Safe Water for All Communities and Objective 5.2: Protect and Restore Waterbodies and Watersheds. The SF Bay Program intends to support this effortto expedite cost-effective nutrient load reductions to SF Bay.

The timing of work to be completed over the next five years generally coincides with the term of the third Nutrient Watershed Permit, which expires September 30, 2029.

The scope of work for BACWA to be supported with EPA funds is shown below and is broken into three tasks: one for BACWA-led regional planning, one specifically for a nutrient trading program, and one for agency-led efforts to implement nutrient load reductions.

Task A. Regional Planning to Reduce Nitrogen Loads

Background

The 2024 Watershed Permit (Provision 6.3.4, page 15 of R2-2024-0013) requires regional planning to ensure compliance with the final effluent limitations. BACWA supported the inclusion of this requirement in the permit because of the potential benefits of regional coordination, which include:

- **Water Quality Impacts.** Estimates of POTW nutrient loads in the coming decades will help Nutrient Management Strategy scientists assess the impact of load reductions on Bay water quality. This information is also needed to support future watershed permits.
- **Cost Impacts.** Regional cost information is needed to understand potential ratepayer impacts and support fundraising from regional, State, and federal sources.
- **Cross-Media Impacts.** A regional plan can draw connections between nutrient reduction and potential cross-media impacts (air emissions, biosolids, etc.), including direct greenhouse gas emissions and power use.
- **Construction Phasing.** Anticipated schedules will help agencies avoid overlaps in construction bidding, and identify areas where agencies may share resources to increase efficiency.
- **Trading.** The information is also needed to support development of a trading program (see Task B of this memo).

Proposed Scope of Work for EPA-funded Grant

- **Develop Regional Plan.** Work with dischargers to develop a plan that includes information about project costs, schedule, financing, and cross-media impacts of projects that will be implemented to meet the final effluent limitations in the 2024 Nutrient Watershed Permit.
- **Identify Projects to Achieve Load Reductions beyond the 2024 Permit.** As required by the permit, BACWA plans to develop information about nutrient reduction projects that could further reduce the regional load beyond the dry season final effluent limits of 26,700 kg N/day and 10-year compliance schedule in the 2024 Watershed Permit. BACWA will work with dischargers to identify alternatives to reduce aggregate TIN loading to below 22,000 kg/day and 17,600 kg/day, with a focus on recycled water and nature-based solutions.
- **Project management and coordination.**
- **Public Outreach.** Develop materials about regional nutrient reduction plans suitable for public outreach via news outlets, websites, and other communication platforms.

Additional Notes:

BACWA intends to work with a consultant to complete a substantial portion of this scope of work. A consultant has not been selected, but will be chosen via competitive process. The proposed budget will not be used to cover participation by BACWA member agency staff, but may be used to cover participation by BACWA staff in the effort. BACWA will supplement EPA funds if needed to ensure a comprehensive work product.

Proposed Schedule: 2025-2029

Proposed Budget: $XX,000 in 2025, up to $X million for 2025-2029

Task B. Nutrient Trading Program

Background

In January 2017, The Freshwater Trust completed the report *Point-to-Point Source Water Quality Trading for Nutrients in the San Francisco Bay*, finding that "a watershed-based point-to-point source nutrient trading program represents a feasible tool to help dischargers comply with future permit limits while improving the water quality of the Bay in an efficient and cost effective manner." The report also included recommendations to reduce the risk and cost of the program. At the time the report was completed, no effluent limitations had been developed for POTWs in SF Bay. As such the report's assumptions and findings should berevisited to considerthe current regulatory framework.

Any trading program would be developed in accordance with U.S. EPA Policy, including its 2003 Water Quality Trading Policy and its February 2019 Update to Promote Market-Based Mechanisms for Improving Water Quality.

Proposed Scope of Work for EPA-funded Grant

- **Trading Framework.** Refresh the work completed by The Freshwater Trust in 2017 to reflect the current regulatory framework (2024 Watershed Permit, 10-year compliance plan) and current scientific understanding of nutrient management in SF Bay. Explore the feasibility of a trading framework under the constraints of the 2024 Watershed Permit.
- **Trading Costs.** Update economic analysis to assess the potential pricing of nutrient credits
- **Model Scenario Support.** Investigate the potential timing and scale of a viable trading program to support efforts by the Nutrient Management Strategy to develop model scenarios of water quality impacts
- **Regional Plan.** Develop information about a trading program to include with the Regional Plan being developed in compliance with the 2024 Nutrient Watershed Permit
- **2029 Watershed Permit.** Develop information about a trading program to support the next Watershed Permit
- **Project management and coordination.**

Additional Notes:

BACWA intends to work with a consultant to complete a substantial portion of this scope of work. A consultant has not been selected, but willbe chosen via competitive process. The proposed budget will not be used to cover participation by BACWA member agency staff, but may be used to cover participation by BACWA staff in the effort. Information about the proposed trading framework will be shared with the Nutrient Management Strategy science program at the San Francisco Estuary Institute (SFEI), to investigate the potential effects of trading on SF Bay water quality by comparing model scenarios. The proposed budget will not be used to directly support work completed by the Nutrient Management Strategy (NMS), which is covered by a separate non-competitive SFBWQIF grant approved July 25, 2024.

Proposed Schedule: 2025-2029

Proposed Budget: $XX,000 in 2025, up to $X million for 2025-2029

Task C. Implementation of Nutrient Reduction Projects

Background

The 2024 Nutrient Watershed Permit's interim and final effluent limits will impact up to 36 POTWs. The 10-year compliance schedule ends October 1, 2034, requiring compliance during the 2035 dry season. Roughly half of the POTWs are already on a pathway to compliance based on currently completed or planned projects. The other half will need to quickly develop a plan for significant TIN load reductions, either through treatment optimization, facility upgrades, recycled water diversions, nature-based solutions, or a combination.

Proposed Scope of Work for EPA-funded Grant

BACWA intends to run a solicitation 2-5 times in the period 2025-2029 for competitive grants to member agencies to implement nutrient removal projects. Eligible awardees would be limited to the dischargers listed in Table 3 (Interim Effluent Limitations) and Table 4 (Final Effluent Limitations) of Order R2-2024-0013, all of which are currently BACWA member agencies (or part of a JPA that is a BACWA member agency). The grants would enable agencies to advance the **speed, scale, innovation, transferability, multiple benefits** and/or **ratepayer equity** for nutrient reduction projects at their respective POTWs. Based on the projected size of the grants (under $0.XM), these grants would not be a substitute for existing grant and loan programs such as the State Revolving Fund, and they would not be suitable for funding large capital projects.

Grant awardees would be selected by BACWA via a selection committee made up of member agency staff. Selection criteria would change from year to year, with an early emphasis on planning and pilot projects; the emphasis would shift to project implementation in later years of the 5-year project. The selection criteria will include:

- **Speed.** Projects where the funding can be used to speed up the completion of TIN load reduction projects in advance of the Water Year 2034/35 compliance date.
- **Scale.** Projects where the funding can be used to increase the magnitude of planned TIN load reductions past the level needed for permit compliance, especially where there is an additional benefit such as water supply, climate resilience, or habitat (list not inclusive).
- **Innovation.** Projects where pilot testing is necessary for innovative technologies to reduce costs or achieve other co-benefits.
- **Transferability.** Projects that employ strategies or technologies that if successful can be replicated at other agencies.
- **Multiple benefits.** Projects that achieve progress toward multiple objectives of the San Francisco Estuary Blueprint.
- **Equity.** The potential for projects to minimize rate impacts on ratepayers in disadvantaged communities by identifying and piloting cost-efficient alternatives, and by subsidizing project completion (including capital costs, if appropriate).

BACWA envisions that the grants could include:

- **Planning** for planning deliverables required by Table 5 of the 2024 Watershed Permit, or to plan projects that would further reduce TIN loads below the final effluent limits.
- **Pilot Projects**
- **Project Implementation**, including capital costs
- **Project Management and Coordination**

Additional Notes:

The proposed budget may be used to cover participation by BACWA member agency staff, BACWA staff and grant management costs.

Proposed Schedule: 2025-2029

Proposed Budget: $XX,000 in 2024-2025, up to $X million for 2025-2029

III. Justification of noncompetitive award based on Section 12.a.(6) of the Competition Policy

A. No meaningful competition if the grants were to be competed

POTWs are collectively responsible for approximately 86% of the dry season total inorganic nitrogen load to the Bay (see Table F-5, R2-2024-0013), with the remainder load coming from upstream in the Bay Delta. POTWs are the only entities with both a current regulatory mandate and the technical capability to achieve significant nutrient load reductions to SF Bay in the next decade.

BACWA is uniquely positioned to implement the work proposed in this grant because it represents each of the POTWs directly affected by the interim and final effluent limitations in the 2024 Nutrient Watershed Permit. Importantly, the final effluent limitations are expressed as an aggregate mass load limit, which necessitates a coordinated regional response.

Competing Task A of this grant (Regional Planning) or Task B (Nutrient Trading Program) would not result in a meaningful competition because EPA is not aware of any other organizations that would apply and have the necessary expertise and regional support required to successfully compete. BACWA members prefer to directly collaborate with one another to build trust; a successful trading program will require member participation and good faith. A non-POTW entity leading the development of a regional plan or trading program without POTW participation would not be able to build trust through the process. Because of the considerable public resources and time required by the EPA to manage a competition, it would not be in the public's interest to pursue a competition to support this work. Further, a non-POTW entity managing the work would jeopardize the quality of the work product, which depends on POTW participation and insights, including potential sharing of privileged cost information.

Competing Task C of this grant (Implementation of Nutrient Reduction Projects) would not result in a meaningful competition because EPA is not aware of any other entities other than POTWs that can achieve significant nutrient load reductions to SF Bay. The 2024 Nutrient Watershed Permit expresses the final TIN effluent limit using an "aggregate mass load limit" (Table 4, Order R2-2024-0013), so it is necessary for dischargers to work together – not independently -- to achieve load reductions. An EPA-managed competition between BACWA member agencies would not foster group efforts to collectively comply with the aggregate load limit. EPA is not aware of any other entities other than BACWA able to quickly determine which projects can advance the speed, scale, and ratepayer equity of nutrient reduction efforts in SF Bay, then quickly disperse small grants to those member agencies. Because of the considerable public resources and time required by the

EPA to manage a competition, it would not be in the public's interest to pursue a competition to support this work.

B. Substantial public benefit to making the award quickly

Issuing a non-competitive award to BACWA will help the POTW community identify ways to quickly and cost-efficiently reduce nutrient loads to SF Bay, then begin implementation of those projects.

There are substantial public benefits to making this award quickly:

- Projects that quickly reduce TIN loads to SF Bay will diminish the potential for harmful algae blooms.
- Projects that reduce TIN loads beyond the final effluent limits will make harmful algae blooms less severe.
- The proposed nutrient trading program and grants to projects in disadvantaged communities will reduce the ratepayer impact of the Nutrient Watershed Permit while addressing equity concerns. This approach spreads the costs of water quality benefits more fairly among Bay Area ratepayers, while ensuring benefits for all.

IV. Conclusion

An exception from the Competition Policy will facilitate the implementation of nutrient removal projects needed for compliance with the 2024 Nutrient Watershed Permit, an essential part of Nutrient Management in SF Bay. A noncompetitive grant to BACWA to develop a regional nutrient reduction plan and trading program will foster efforts to distribute the costs of nutrient load reduction projects more equitably among Bay Area ratepayers. BACWA's role as a grant manager for small grants to member agencies will allow for a coordinated approach on compliance with the permit's aggregate load limits, resulting in bigger, better, and faster improvements to Bay water quality.

cc: {TBD}

Concurrence:

_____

{TBD}

Grants Competition Advocate

Office of Grants and Debarment

11/6/2024 NMS Planning Subcommittee (PS), Science Planning Meeting Notes

Presentation & Agenda Shared with Group

Action Items:

1. Science team to update slides to reflect the fact that the Priorities reflect input from the Water Board (WB) and BACWA **[DONE 11/7]**
    a. Add reconvening the Modeling Advisory Group to the list of priorities
2. Science team to produce materials for next meeting 12/4
    a. Plan to use upcoming PS meetings for Science Planning (Dec, Jan, Feb, March).
    b. Assemble and distribute descriptions (½ page each) for suggested projects. To be sent out before the next meeting (12/4). Create a shared doc with WB/BACWA to collaboratively draft the Project Descriptions/provide input.
        i. Include monitoring and basic science (C1-3)
        ii. Focus on a subset if Science team can't get everything done in time
    c. Create Agenda for next meeting
        i. Collect additional feedback on Dave's proposed timeline/milestones
            1. Add what can be done in this current fiscal year (any investments that need to be made to support the planning process)
            2. Determine when to present science plan to Steering Committee
3. WB to schedule meeting with POTWs to clarify approach and share information on how the science could inform permit discharge rates

Attendees

In-Person	Remote
• Julie Song (US EPA) • Dan Killam (SFEI) • Mary Cousins (BACWA) • Eric Dubinsky (US EPA) • Jackie Zipkin (EBDA/BACWA) • Tom Mumley (member of the public) • Lorien Fono (BACWA) • Ian Wren (Baykeeper) • Will Geiken (SFEI) • Kevin Lunde (Water Board) • David Senn (SFEI)	• Amit Mutsuddy (EBMUD/BACWA) • Richard Looker (Water Board) • Luisa Valiela (US EPA) • Eric Dunlavey (San Jose/BACWA) • Tom Hall (EOA) • Kerry O'Connor (Water Board) • Joseph Dillon (NOAA/NMFS) • Kerry O'Connor (Water Board) • Lori Schectel (Central San) • Tim Mussen (Sac Sewer)

Introduction, Agenda, and Goals Review

- Dave reviewed the overall planning process goals and the goals for today's discussion (see slides 3 and 4)

NMS Science Priorities Discussion

- Dave reviewed the NMS Science Goals and Management Questions and their relationship to the WB and BACWA science priorities
- Question: Is there a part of this process where we can revisit the management questions/priorities? (Assessment Framework, Condition, Nutrient Linkage, and Management Options)
    - Multiple members of the PS expressed their shared interest in doing so.
    - Response: Yes, we should identify a point in the process to do so.
- Dave provided an overview of the anticipated budget scenarios
    - Note: Funding over the next several years could include $3.7mill/yr to $6mill/yr, including Permit fees and EPA funding.
    - Note: Because the EPA funding is uncertain for the second half of the permit period, suggestion to focus big priorities in the first years
    - Note: Those totals do not include additional current funding that the NMS receives such as NOAA MERHAB, WQIF, and Destination Clean Bay due to their temporary nature
    - Comment: The Bay RMP just had a planning meeting that also included uncertainty, but the RMP expects to continue funding the Peterson cruises and a portion of the special studies (approx. $250k is relatively certain)
- Question: How much input does the PS want to give to the NMS, and vice versa, how much input does the NMS want? What is the balance between direction setting and more granular input?
    - Response: We would like this group to come to a decision on how to allocate total funds across the various priorities.
    - Comment: Determining that allocation will require an improved understanding of the projects being proposed and their relative costs.
- Comment: In the previous Science Planning process, the group worked from Assessment Framework, to Condition, to Nutrient Linkage, to Management Options. Because we have now selected management options, it is suggested that the group start with management options, link those to a range of conditions, and then refine the management options.
    - There was some agreement that the group does not need to open up all the assessment framework scenarios and instead can focus on work within the management decisions made.
    - Comment: Some work will need to look backwards at the 2022 HAB event to create greater certainty around the load reductions implemented.
    - Comment: The granularity of feedback will depend on the expertise of the SC members. The SC will vote on the overall priorities.

- Comment: The current science plan doesn't include single event management, but we are now very dedicated to that. We need to develop a shared understanding of the management questions with that reframing and use that to inform the new projects.
- Suggestion: Everyone could weigh in on the priorities and then we can discuss the medium and low priorities while keeping the high priorities.
    - Response: Even if we rank a certain study as high priority, how we approach a study will depend. Suggestion that we start by looking at the management questions.
    - Response: It is important to identify what questions each management question is going to answer.
    - Response: The question is not, "What is the new load limit?" Instead, it is centered around, how accurate is this load limit?
- There was extended discussion around the question, "what level of future HAB event is acceptable?" The WB is using the 2022 HAB event as a critical condition, which is to be avoided through the load limitations. The group discussed the 2023 minor HAB event as also being a critical condition, but the prevailing sentiment is that using 2022 to define the critical condition will still, theoretically, prevent similar minor HAB events.

WB and BACWA Science Priorities and Projects Discussion

- BACWA's priorities are framed towards meta questions
    - Ex: Can we generate synthesis documentation so that we can all better understand heterosigma and then communicate those findings to stakeholders
- Comment: The management questions can help prioritize the WB/BACWA priorities
    - Additional comment: Selecting projects based solely on topic priority as opposed to how much the project will impact the topic (inform/move the needle) is tricky.
    - Suggestion to begin by looking at projects and assessing their relative impacts on the priorities. Also important to consider what the information gained will inform.
- Dave reviewed a table with an initial outline of the project types that could investigate the WB and BACWA's priorities (see slide 20)
    - Note on cost-estimate: FTE SFEI staff cost $150-250k/year with indirect rate. FTE estimates could be one or more staff working part of the year
    - WB comment: The WB is not aiming to create a new list of projects. The projects shared at the October Steering Committee meeting are the types of studies they envision, which they plan to adjust as needed.
        - Response: Shouldn't we be open to creating a new approach/set of projects?
        - WB response: It will be time consuming to refine the 2024 approach. If we are trying to create a new approach, we will also have to create the projects that can support that approach, which is unlikely to be feasible with the time remaining
    - Comment: Prioritization is based on refinements for the next permits and maybe getting started on some of the long-term projects (ex: nutrient trading). What to use was done in SB to inform actions in other parts of the Bay as opposed to

duplicating efforts. More interested in addressing acute DO levels (i.e. what acute violation frequency is acceptable?)

- Comment: BACWA and POTWs are moving quickly to meet their limits sooner than this permit term. There is concern that if this group signals that the new limits can change significantly in the next permit round, it could cause them to stop their improvements as they wait to see what the new goal posts are.
    - Response: The permit language says that the current permits are binding and enforceable in 2034, POTW's need to have confidence that the 2029 permit will be achievable. How we frame management questions, projects, and what information will be provided will affect how that is signaled. POTWs do not want to tweak the numbers, instead look for compliance schedule and other areas that promote compliance
    - Response: WB needs to keep tweaking the numbers on the table
    - Response: Baykeeper and BACWA want the limits to be based in science
    - Response: The POTWs are already on a path, and changing the path requires a long timeframe
- Comment: The projects listed may answer multiple management questions
    - Comment: Instead of just saying "this project can answer multiple questions," we need to prioritize the key questions that will be answered. Let's link the management actions to the conditions.
- Comment: The importance of the 2022 event is that it is a critical condition (i.e. beneficial uses were harmed). We are looking backward to the event because it has outsized importance. This process should refine the science approach to confirm/modify what is needed in wastewater loads to ameliorate the impacts of the critical condition.
    - Response: Are there other critical conditions that might define different loads?
    - Response: That is not what the WB is intending. The plan is to use 2022 as the critical condition.
    - Response: Why not also consider the 2023 bloom as a critical condition. It also had fish kills? (This sentiment was shared by multiple PS members).
    - Response: Loads defined by 2022 event should also protect against 2023 event potential
    - Response: We still want to study the non-DO impacts of HABs. If a pathway is identified (ex: toxins released), then looking at how nutrients are related to that pathway will be important.
- Comment: In NPDES permitting, the EPA has to consider the worst-case-scenario each time they issue the permit. They update their model based on the previous permit terms, and they used 2022 to help define their work. However, they will have to consider other factors (temperature, pH, etc.) in defining the next worst-case scenario for the next permit, which may include non-2022 conditions and can differ by subembayment.
    - Comment: So, for 2023, it is important to understand what drove fish kills in San Pablo Bay and if those factors are worse in 2023 than 2022.
    - Comment: Understanding other years will help reflect how load reductions would impact conditions from other years (Answer the question, "are load reductions going to have a meaningful impact?")

- Comment: It would be helpful for the science team to translate each project into a write-up so that we can generate a collective understanding of the projects and then evaluate the relative priority of each project.
    - Comment: Some projects will likely address multiple priorities
    - Modeling-specific comment: It is important to know what the model can simulate (hind-cast) v. predict (simulate)
        - Comment: When we do the analysis to support the 2029 permit, the modeling needs to be done on the individual WQBELs, not just as a retrospective
- Comment: Reiterated desire for increased certainty on how this information might refine the next permit. What is the WB's vision for how the information will refine the 2024 analysis?
    - Comment: WB suggests a meeting between the WB and BACWA/POTWs to discuss their vision.

Approach for Science Plan Development

- Dave shared the milestones and tentative completion dates (see slide 21)
- Comment: For the Expert Input #1 milestone, there is concern on how experts will provide input on plans. Suggestion that their input needs to be guided and focused.

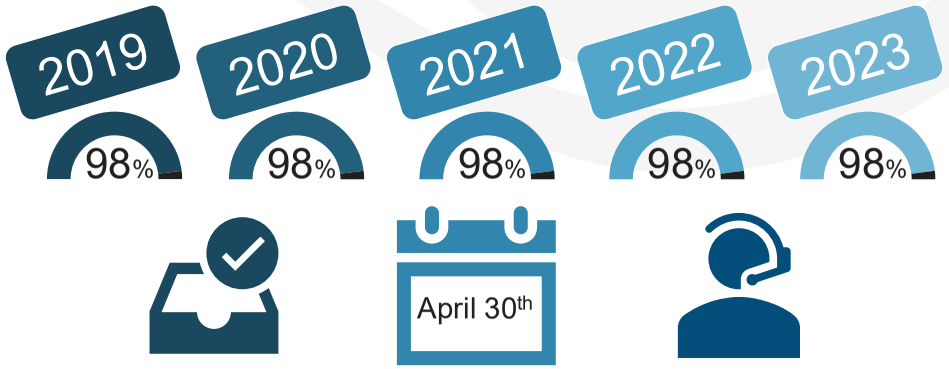
Summary of Results from the 2023 Volumetric Annual Report of Wastewater and Recycled Water in California

Item #2

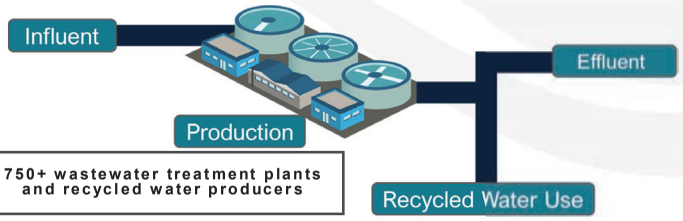
CALIFORNIA Water Boards

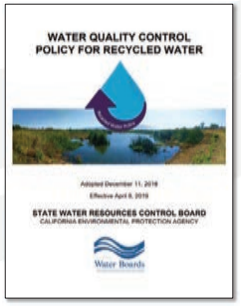
Division of Water Quality, November 6, 2024

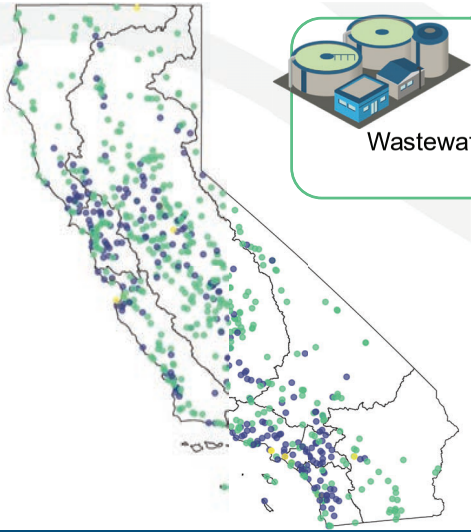
Volumetric Reporting Compliance



Volumetric Annual Reporting







456
Wastewater Treatment Plants

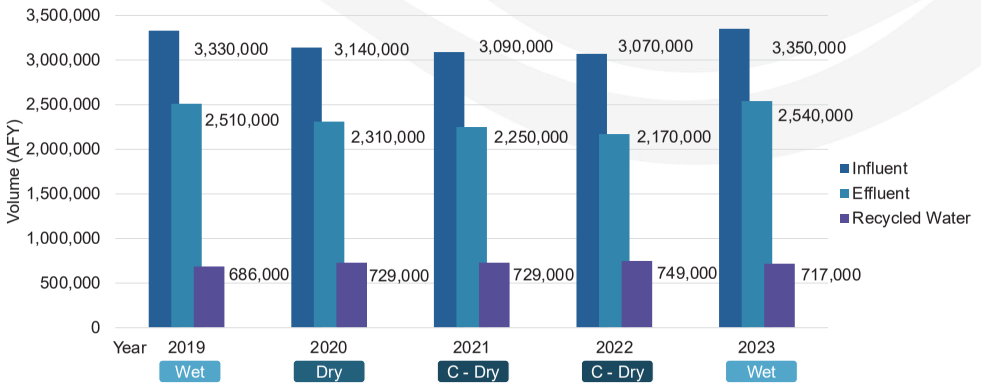
260
Wastewater Treatment Plants that produce recycled water

19
Recycled Water Producers*

* These facilities do not receive raw wastewater

5

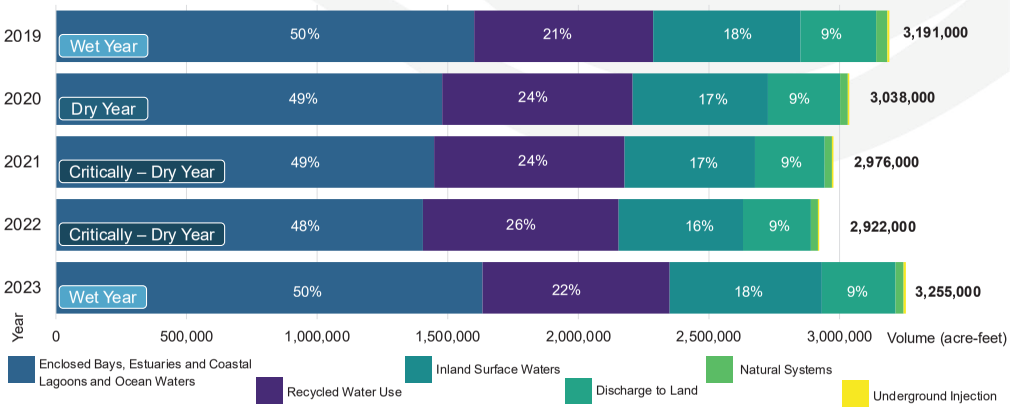
Emerging Data Relationships



California Water Boards

7

Effluent Discharge and Recycled Water

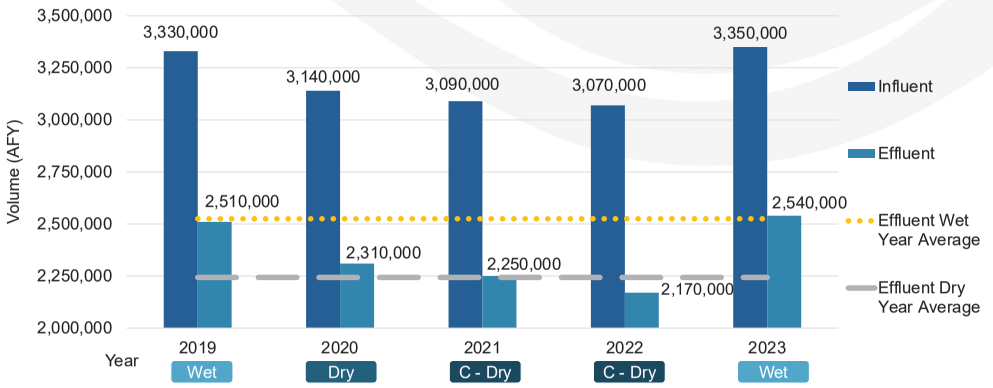


California Water Boards

88

6

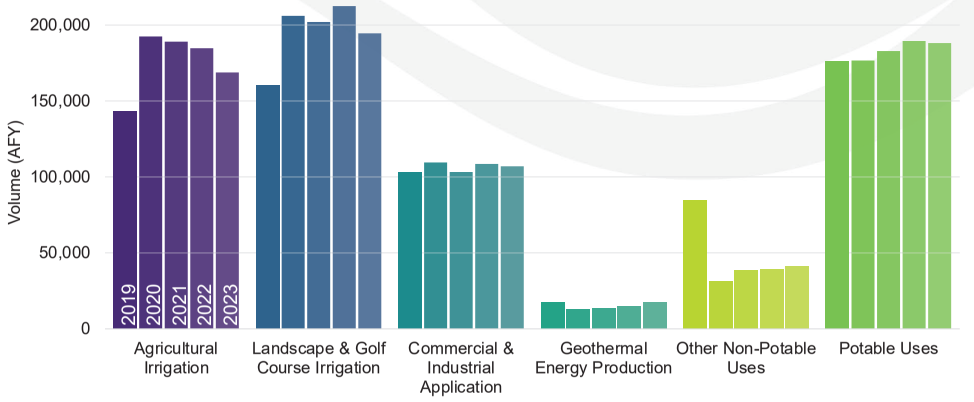
Emerging Data Relationships



California Water Boards

8

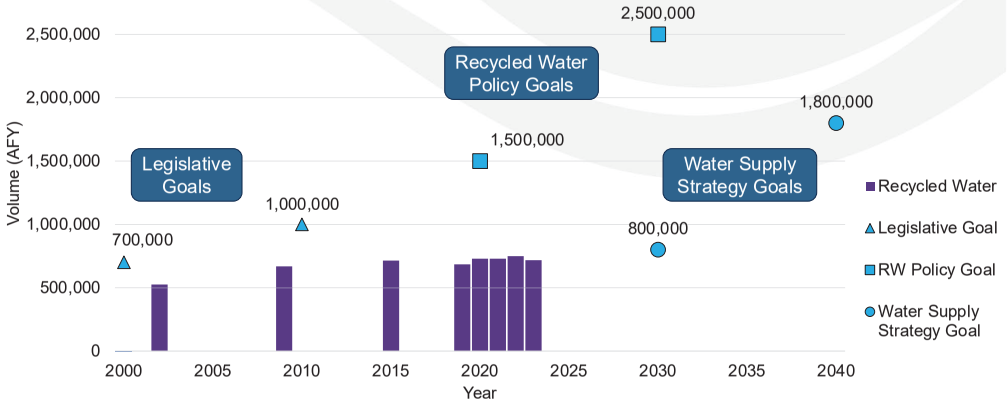
2019 - 2023 Recycled Water Use Category



California Water Boards

9

Recycled Water Goals



11

Collaboration

CALIFORNIA DEPARTMENT OF WATER RESOURCES

Urban Water Management Plans

WATER CONSERVATION PORTAL
CONSERVE... IT'S A CALIFORNIA WAY OF LIFE.

Urban Water Use Objectives

DROUGHT & CONSERVATION REPORTING

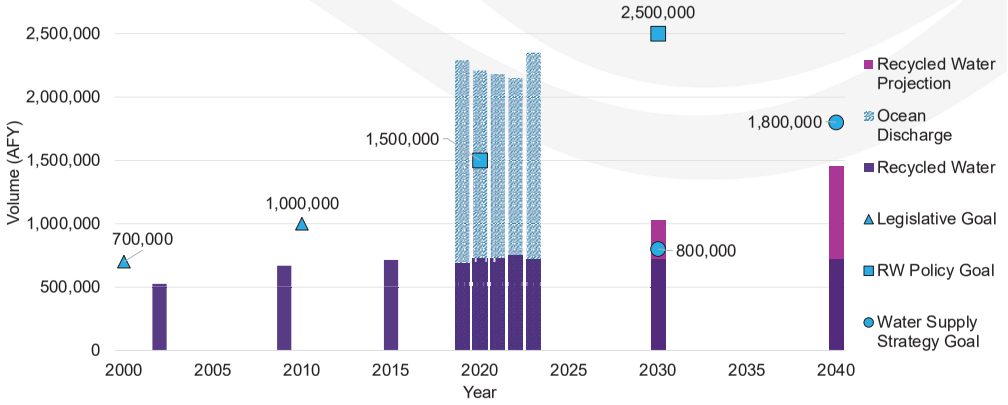
Building relationships between treatment plants and distribution

WATER RECYCLING FUNDING PROGRAM

Recycled water deliveries from funding

10

Recycled Water Goals



12

Contact Us

For assistance with creating a GeoTracker account, email:
geotracker@waterboards.ca.gov

For assistance with the volumetric annual report, email:
recycledwater@waterboards.ca.gov

Help guides and additional resources and a link to the Open Data Portal can be found at:
waterboards.ca.gov/recycledwater

RECYCLED WATER POLICY

Potential Transition of the BABC to a BACWA Committee

Background:

The Bay Area Biosolids Coalition (BABC) originally formed with the purpose of developing a regional biosolids processing facility. However, in recent years, the focus has shifted to regulatory updates, research funding, and outreach/education.
Bay Area Clean Water Agencies (BACWA) is considering restarting its Biosolids Committee to allow agencies who are not currently members of the BABC to also participate in regular biosolids discussions. However, most of the functions of the Biosolids Committee would overlap with the work done by the BABC. To avoid duplicating efforts, BACWA and the BABC are considering transitioning the BABC to a committee under BACWA.

Frequently Asked Questions (FAQ)

What are the benefits of transitioning the BABC to a committee under BACWA?

The benefits include:

1. Expanding the membership (all members of BACWA would be invited to participate in the meetings).
2. Consolidating efforts between the BABC and a BACWA Biosolids Committee to avoid redundant work and meetings.
3. Improved coordination on public education and messaging.

How would the decision to transition the BABC to a committee under BACWA be made?

According to the BABC's 2012 JEPA, decisions resulting in "Material Action" require unanimous vote by the POTW member agencies, and decisions not resulting in "Material" Action" require majority vote. "Material Action" is defined as any action that creates or increases a payment, obligation, debt, or liability of any Member.

Overall, dues are expected to decrease slightly for any member agencies that are current members of both BACWA and BABC. However, a few BABC members are not members of BACWA and thus their dues may increase, resulting in "Material Action". BACWA's budget and dues structure for the Biosolids Committee, which has yet to be developed, will determine whether or not this change results in "Material Action" or not, which will determine whether a unanimous or majority vote is required of BABC members.

Why did the BACWA Biosolids Committee discontinue in the past?

The BACWA Biosolids Committee was discontinued soon after the formation of the BABC because participation by member agencies dwindled due to a shift to participating in BABC meetings instead.

Would the BABC be able to continue their functions if the BABC transitions to a BACWA Committee?
Yes, the BABC's functions of information sharing, regulatory updates, research funding, maintaining the website and other outreach/education efforts would continue under a BACWA Committee.

Would the BABC be able to retain their branding and website?

Yes. The BABC would be able to retain their name, logo, and website after the transition.

How would the BABC's current research funds be managed?

There are several ways existing BABC research funds could be managed whereby the BABC would retain control over use of their research funds. One way is for the BABC to have a separate, temporary research fund that they continue to manage, until the current research funding budget is spent. Another way is to commit a certain amount of funding every year to research, with the BABC deciding how to spend those funds.

How would dues be impacted for the BABC's POTW member agencies?

Dues for all BACWA members would increase to accommodate the budget needs of the BABC. However, the additional costs would be spread across more member agencies. Current BABC members who are also BACWA members would end up paying a lower overall amount in dues, when accounting for the slight increase in BACWA dues and the elimination of the BABC dues.

How would dues be impacted for the BABC's private companies (vendors, consultants)?

BACWA does not charge dues to private companies. However, the BABC, as a committee under BACWA, would have the option to ask for sponsorship from private companies, if desired.

Who can attend the BACWA Biosolids Committee meetings?

Who attends the meetings would be completely up to the BABC members. All BACWA members would be invited to participate. Private companies, researchers, regulators, etc. could still attend if desired.

What would be the future role of the BACWA Board?

The BACWA Board would approve new fiscal year budgets and contracts reaching a certain value, such as for research opportunities and with private companies.

Is the BACWA Board interested in this transition?

Yes, they are interested and would support this transition, pending a decision by the BABC.

Would Carollo still serve as Program Manager?

BACWA requires a competitive bid process for private contracts (could be up to every five years). Carollo would need to submit a proposal and compete with other potential consultants to continue acting as Program Manager. To facilitate the transition, BACWA could use a sole-source exemption during the first year (Fiscal Year 2025/2026).

How quickly could this transition happen?

The proposed schedule is as follows:

- At the October 24 BABC meeting, discuss this potential transition and gauge member interest.
- If there is widespread interest, further develop the details including development of a proposed budget and dues structure.
- At the December 9 BABC meeting, discuss the 2025/2026 Fiscal Year proposed budget and dues structure and begin official voting on whether or not to transition the BABC to a committee under BACWA.
- If BABC members vote in favor of becoming a BACWA committee, then additional administrative steps such as developing a new budget for the BACWA Biosolids Committee and fiscal year scope for the Program Manager would continue between December 2024 to January 2025.
- At the discretion of the BABC members, BACWA members who are not BABC members may begin attending meetings in early 2025, before the transition officially occurs.
- The new budget and dues structure under BACWA would officially happen at the start of the 2025/2026 Fiscal Year (July 1, 2025).

BAY AREA BIOSOLIDS COALITION

Proposed Transition Schedule

October Coalition meeting – Discuss potential transition and gauge member interest.

October to December - If there is widespread interest, develop 2025/2026 FY BABC budget and dues structure.

December Coalition meeting – Discuss the proposed budget and dues and begin official voting to transition.

December to January – If members vote to transition, further develop the Program Manager scope and budget.

January 2025 – At the discretion of BABC members, BACWA members may begin attending meetings.

July 1, 2025 - Official transition from BABC to BACWA Biosolids Committee.

BAY AREA BIOSOLIDS COALITION

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

November 21 *

December 19 *

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

FY 26 Budget Adoption Schedule

Finance Committee Meeting (week of 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

Permits Committee –
Report to BACWA Board

Permits Committee Meeting on: October 8, 2024
Executive Board Meeting Date: December 6, 2024
Committee Chair: Meg Herston, Delta Diablo

Committee Request for Board Action: None
Virtual meeting format with 35 attendees representing 18 member agencies.

Welcome to new Vice Chair, Blake Brown from Central San

Central San's Experiences with KLIR Software
Robert Hess from Central San shared his agency's recent experience implementing KLIR software for tracking requirements where Central San is the regulated entity. Central San has about 125 such permits, including an NPDES permit, Air District permits, and occupational health & safety permits (e.g., pressure vessels). At Central San, the KLIR software replaced a macro-enabled spreadsheet, and it has helped reduced the administrative burden associated with permit compliance tasks. Robert provided a demonstration of the software, noting that the calendar view and ability to delegate tasks are particularly useful. A slide deck from a similar presentation is available here. After Robert's presentation, attendees shared the approaches their individual agencies use for tracking regulatory due, which included Excel spreadsheets, specialty software designed in-house, work orders in CMMS, Microsoft SharePoint, and OnBase by Hyland.

Upcoming Permits / Tentative Orders – Sonoma Valley CSD's NPDES permit is scheduled for reissuance in December 2024 (see draft permit), while Palo Alto's is likely to be delayed until early 2025.

White Paper on Constituents of Emerging Concern (CECs)
Samantha Engelage (Palo Alto) provided background information about SFEI's Regional Monitoring Program (RMP); she serves as a representative from BACWA to the RMP Technical Review Committee. Sam shared Palo Alto's experience participating in special studies of CECs, which involves some administrative burden (sample collection and shipping) but is also rewarding due to the ability to stay up-to-date on new science and regulations. She recommended joining one or more RMP workgroup email lists. RMP meetings are open to anyone, though voting is restricted to official representatives. Mary Cousins (BACWA) shared info about the draft white paper on CECs studies that has been shared with the committee, which summarizes information about recently completed studies of CECs in Bay Area wastewater and provides information about wastewater treatment facilities that the RMP scientists can use to design future studies. A final version will be shared with the committee soon. The RMP Annual Meeting in October 2024 also focused on CECs.

Nutrient Watershed Permit Implementation
- BACWA will be hiring a consultant team to assist with specific tasks required by the Nutrient Watershed Permit. See the RFP, Implementation Plan and Key Due Dates and Tasks for more info.
- Slides from the Dr. David Jenkins Nutrient Seminar are now available. "Intensification" was the buzzword of the event, particularly MABR and Annamox sidestream treatment. A pilot study of MABR is ongoing at Central San and construction is underway at Palo Alto. The event raised almost $30k for the scholarship fund, and the planning committee may host a future event on cross-media issues.
- BACWA has met with Regional Water Board staff to discuss proposed changes to the 2008 Compliance Schedule Policy per Resolution R2-2024-0014. The effort has been delayed but Regional Water Board staff have pledged to continue working on it.
- The next meeting of the science program steering committee is Friday, October 11th (see materials). The science program anticipates a significant increase in funding (about $3M) from USEPA.

Other Discussion Items and Announcements
- BACWA has prepared a comment letter on the 2024 Triennial Review Staff Report, which includes a nutrient-related Basin Plan Amendment as one of the top priorities for staff time.
- BACWA has submitted a request to the Regional Water Board regarding PCB congener reporting (link).
- On October 16th, the Supreme Court heard San Francisco vs. USEPA about generic receiving water limitations in NPDES permits (link to oral arguments).
- Agencies with chlorine disinfection should make sure to include information about any changes to chlorine process control plans in their Annual Self-Monitoring Reports. See examples from EBMUD, CMSA, San Jose, and San Mateo.

Next Permits Committee Meeting: December 10th, 2024, 10:30 AM at DSRSD in Pleasanton
Joint Meeting, Holiday Luncheon, and Cookie exchange

Recycled Water Committee
Report to BACWA Board

Committee Meeting on: 10/15/2024
Executive Board Meeting Date: 12/6/2024
Committee Chairs: Stefanie Olson, Reena Thomas

Committee Request for Board Action: None

28 attendees participated remotely and in-person at EBMUD, including representatives from 13 member agencies, the Regional Water Board, and consulting firms.

Palo Alto's Local Advanced Water Purification System

Diego Martinez Garcia (City of Palo Alto) provided an overview of the City's plan to improve and expand its recycled water program by installing a microfiltration and reverse osmosis treatment system (link to slide deck). Highlights from the presentation included:

- The project will improve recycled water quality by lowering salt content, allowing recycled water to be used more widely for landscape irrigation. Most of the current system demands are in Mountain View and City-owned parks in Palo Alto.
- With this project online, the average TDS is expected to drop from about 800 mg/L to about 450 mg/L (+/- 50 mg/L). The blend ratio of the existing tertiary recycled water and RO permeate will be periodically adjusted to achieve the target TDS. The City is putting significant effort into developing SOPs for different demand conditions, mindful of the need to protect the RO membranes during low-demand periods.
- Project design began in 2021 (Black & Veatch is the design firm). Phase 1 is expected to be completed by the end of 2027 and will have a production capacity of 1.16 MGD. Phase 1 will include space for an eventual Phase 2 that would double production capacity. The construction phase is going out to bid very soon (late 2024).
- The project benefitted from an SRF loan and Title XVI grant from USBR. Total cost is expected to be about $67M. The project design is elevated to be resilient to future sea level rise.

BACWA Updates

BACWA has released an RFP for a consultant team to assist with specific tasks required by the Nutrient Watershed Permit. By early 2025, agencies will need to identify whether recycled water projects are an alternative that could be used to comply with the permit's final effluent limits for Total Inorganic Nitrogen. BACWA (and the selected consultant team) will assist with compiling this information into the Group Annual Report. BACWA will also lead preparation of a Regional Plan, starting with a scoping plan for the effort due July 1, 2025.

Legislative and Regulatory Updates

- The $10B climate bond on the November ballot (Prop 4) includes $386M for water recycling projects.
- The State Water Board's Direct Potable Reuse regulations are effective as of October 1st
- Onsite Non-potable Reuse regulation rulemaking is expected to begin as soon as early November
- The State Water Board's FY25 Water Quality Fees include new fee categories for recycled water, replacing the previous structure that included recycled water fees within other permit fees (e.g., NPDES or WDRs). The fees will cover about 15 staff positions at the State Water Board and are set at $2,800/yr for non-potable production, $16,000/yr for potable production, and $1,500/yr for distribution.

Proposed Meeting Schedule for 2025:

- Tuesday, January 21st
- Tuesday, April 15th
- Tuesday, July 15th
- Tuesday, October 21st

Laboratory Committee
Report to BACWA Board

Committee meeting on 10/22/2024
Executive Board Meeting Date: 12/6/2024
Committee Chair: Kristy Fournier, DSRSD

Committee Request for Board Action: None

45 attendees participated remotely, including representatives from 19 member agencies, the Regional Water Board, the CWEA Lab Committee, and one guest speaker.

Quality Control Requirements for Standard Methods affected by the MUR

John Gumpper from ChemVal presented on changes to the quality control sections of Standard Methods affected by the most recent EPA Routine Methods Update Rule 2 (rMUR 2) promulgated in April 2024 (see Federal Register reference, Footnote 84). The presentation focused on changes to Standard Methods (SM) sections 2020, 3020, 4020, and 5020. The presentation covered topics such as acceptance criteria for initial calibration, calibration verification, operational range, initial and ongoing demonstration of capability, analysis of reagent blanks and laboratory-fortified matrices, acceptance criteria for duplicate samples, and verification of MDLs and MRLs. ChemVal will follow up with more information about changes to microbiology methods (SM 9020, 9030, 9040, and 9050). For more information, see the presentation slides or handout.

Changes to Standard Methods affected by the MUR

Kristy Fournier presented on changes to Standard Methods affected by rMUR 2. 40 CFR 136 specifies which edition of Standard Methods labs should use, and ELAP recommends using the most recent edition of quality control requirements. SM4500 H+ (pH) has numerous technical changes related to the apparatus, reference electrodes, temperature compensation, buffer preparation, buffer storage, reagents, and method procedures. SM2320 B (Alkalinity), SM2130 B (Turbidity), SM2510 B (Conductivity), SM2540 A (Solids), SM2540 B (Total solids), SM2540 C (TDS), SM2540 D (TSS), SM2540 E (Fixed and Vol. Solids), SM2540 F (Settleable solids), SM4500 CN^-, SM4500 NH_3 D (Ammonia), and SM4500-O (DO) have numerous editorial changes. For more information, see the presentation slides. The next EPA MUR is expected in late 2024.

BACWA Announcements

- BACWA has prepared a guidance document on Sampling, Analysis, and Reporting Protocols for PCB Congeners for compliance with the Hg & PCBs Watershed Permit (R2-2022-0038). After the meeting, the Regional Water Board provided approval for this updated protocol, which members should use in consultation with contract laboratories. The main change is the specification to report the MDL or Estimated Detection Limit, whichever is greater, when the analyte is not detected in the sample.
- Content from the Regional Monitoring Program Annual Meeting is now available. You can also order a copy of the 2024 Pulse of the Bay, which focuses on emerging contaminants.

Discussion Topics

- **Flow-based compositing.** Members discussed flow compositing language in Attachment G, which requires that the "proportion of each grab sample included in the composite sample shall be within … (+/-5%) of the representative flow of the waste stream being measured at the time of grab sample collection." The collective opinion was that periods with no flow are not included in the composite period, nor do they count towards the +/-5% deviation.
- **Chlorine Process Control plans / SOPs** – Make sure to follow manufacturer recommendations for calibrating online chlorine monitoring equipment. See BACWA guidance document on amended NPDES permit requirements for residual chlorine.
- **QA Audits –** Blake Brown recently collected QA Audit templates and will share them with the committee. Most followed the TNI format.

Next Meeting: Tuesday, December 10th – 10:30 AM – 1 PM - Joint Meeting, Holiday Luncheon and Cookie Exchange with Lab Committee, In-Person at Dublin San Ramon Services District (Pleasanton). A tour will precede the meeting (tentative).

Collection Systems Committee
Report to BACWA Board

Committee meeting on 11/14/2024
Executive Board Meeting Date: 12/6/2024
Committee Chairs: Tyree Jackson (Oakland) and Paul Seitz (Central San)

Committee Request for Board Action: None
46 attendees (including 3 guest speakers) from 26+ member agencies.

CWEA Update

Norah Duffy and Lydia Guerra provided an update on changes underway to CWEA's Collection System Maintenance Technical Certification Program. No changes are planned to the education or experience requirements. TCP exam revalidation is on a 5-year cycle, and the handbook and exams are being updated to reflect current technology and job descriptions, including the updated statewide General Order for Sanitary Sewer Systems. Handbook changes will be released around April 2025, and changes to the exam will occur about three months later. CWEA will need volunteers in early 2025 to test the revised exam. For more information, see the presentation slides.

Infiltration and Inflow Assessment from RH Borden

Kwin Peterson (RH Borden) presented a method for assessing infiltration and inflow (I&) in sewershed basins of varying scale, ranging from targeted neighborhood studies all the way up to large collection systems. The method relies on analysis of rainfall, flow, and level data from networks of ultrasonic and/or radar sensors mounted within maintenance structures. The sensors are left in place for several weeks to months during the rainy season The presentation showed how data analysis can be used to detect blockages, inflow, or infiltration, which agencies can use to target follow-up actions like smoke testing, CCTV, hydro-cleaning, or visual observations. For more information, see the presentation slides.

BACWA Announcements

- BAPPG's Fall Pollution Prevention Campaign focuses on FOG. Download GIFs here. BAPPG will also discuss FOG from food trucks at their December 4th meeting.
  BCDC's Regional Shoreline Adaptation Plan is now under development. Collection system agencies with infrastructure near the Bay shoreline will need to participate to develop adaptation plans for sewer pipelines, lift stations, and other assets.
- BAAQMD has made determination that EPA Tier 4 emissions standards apply as BACT/TBACT for Standby Diesel Engines 50-1,000 BHP. The new rules go into effect December 2nd.
- State Water Board's Wastewater Needs Assessment – BACWA has provided information on collection system service areas from this Baywise map. Agencies can update their maps by contacting Mary Cousins.
- Per AB 1594, the California Air Resources Board is planning changes to the Advanced Clean Fleet regulations to allow more exemptions related to "traditional utility-specialized vehicles" used by public agency utilities.
- A report is available on Sources and Transport Pathways of Human Fecal Material to the Lower San Diego River Watershed (Region 9). The study found that sanitary sewer system spills and exfiltration were the largest source of human fecal pollution.

Announcements

- Landon Lochrie (CVSan) shared information about the next NorCal PUG meeting on Tues 12/10.
- CASA's Data Review Group is continuing to meet every few weeks with State Water Board staff to discuss implementation of the statewide General Order for Sanitary Sewer Systems. State Water Board staff are continuing to roll out new CIWQS modules every few months. The group is also leading the development of several training videos related to spill reporting. Members should reach out to Mary Cousins or Paul Causey if they have any issues with CIWQS reporting that they have not been able to resolve directly with Board staff.

Next Meeting: Thursday, February 13th
Other meetings in 2025: May 8th, August 14th, and November 13th

Executive Director's Report to the Board

October/November 2024

EXECUTIVE BOARD MEETING AND SUPPORT

- Worked with BACWA staff to plan and manage 10/18 Executive Board meeting
- Conducted the Executive Board meeting agenda review with the BACWA Chair
- Hosted 10/18 Executive Board meeting and developed meeting notes
- Planned and held special joint Executive Board meeting with R2 staff (11/22)
- Continued to track all action items to completion
- Updated Strategic Plan
- Drafted FY2024 Annual Report and Strategic Plan Evaluation

COMMITTEES:

- Attended Permits committee (10/8)
- Attended BACWA RW Committee (10/15)

REGULATORY:

- Attended WRF webinar on N2O emissions (10/31)
- Attended CASA Pooled Emissions SC meeting (11/20)
- Attended R2 meeting for Selenium update (11/13)

NUTRIENTS:

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

- Drafted RFP for permit compliance support
- Managed and completed RFP issuance, proposal review and selection
- Negotiated contract with consultant
- Discussed potential collaboration with SFSU on eelgrass restoration
- Attended NMS Planning Subcommittee meeting (11/6)
- Attended NMS Steering Committee meeting (10/11)
- Worked with RPM to develop Non-competitive Grant proposal with USEPA and discussed with Board members
- Met with Water Board and SFEI EO on NMS program management
- Met with Science manager to discuss program management issues
- Met with CASA OAH subgroup (10/23)
- Attended SCCWRP OAH IPR meeting (10/24, 11/14)
- Discussed coastal nutrient efforts with CASA (11/1)
- Attended RCAC funding fair (11/7)
- Attended MaTAG meeting (11/21)

COMMUNICATIONS

- Held regular progress meetings with Civic Edge

FINANCE:

- Reviewed the monthly BACWA financial reports
- Reviewed and approved invoices
- Worked with EBMUD to complete Audit and Financial Statement

COLLABORATIONS:

- Attended R2 Board meeting with Bruce Jenkins Scholarship winner (10/9)
- Spoke on POTW PFAS perspective at ELI seminar (10/15 and 10/17)
- Attended CASA ACE meeting (10/10)
- Attended RMP Annual Meeting (10/16)
- Discussed collaborative opportunities with SFEP for NBS and One Water
- Attended CASA Air Toxics meeting (11/13)
- Attended CASA RWG (10/17, 11/21)

ASC (AQUATIC SCIENCE CENTER)

- Reviewed materials sent via email by ASC ED
- Responded to questions from SFEI/ASC Auditor

BABC (BAY AREA BIOSOLIDS COALITION)

- Developed committee transition FAQ
- Attended BABC meeting and answered questions about transition to BACWA committee (10/24)

BACC (BAY AREA CHEMICAL CONSORTIUM)

- Responded to member queries

BACWWE (BAY AREA COALITION FOR WATER/WASTEWATER EDUCATION)

- Developed RFP for program support

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.
- Conducted performance plan/evaluation with AED and RPM

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

Jan 2025 – March 2025 Meetings

DATE	AGENDA ITEMS
Jan 17, 2025 *SFPUC*	**Approvals & Authorizations:** • 2nd NMS payment approval • **Policy / Strategic Discussion:** • **Operational:** •
Feb 21, 2024 *EBMUD Orinda*	**Approvals & Authorizations:** • • **Policy / Strategic Discussion:** • Pesticides Presentation **Operational:** • FY26 Draft Budget •
March 21, 2024 *Central San*	**Approvals & Authorizations:** • • **Policy / Strategic Discussion:** • Watershed permit submittals to water board **Operational:** • FY26 Second Draft Budget •

Number	Subject	Task	Responsibiity	Deadline	Status
	Action Items from Oct 18 2024 BACWA Executive Board Meeting		**resp.**	**deadline**	**status**
2024.08.08	Summary of Watershed Permit activities	BACWA ED to work with member agencies on roles, responsibilities & timeline.	ED		on going
2024.10.09	Draft agenda and logistics for R2 Joint meeting, Nov 22	BACWA ED finalize agenda for event.	ED/AED	11/18/2024	complete
2024.10.10	Holiday meeting and committee chair appreciation	BACWA ED and AED to plan holiday lunch at EBMUD downtown.	ED /AED	11/19/2024	complete
2024.10.11	Meeting dates for CY 2025	BACWA AED to send 2025 calendar updates to BACWA Board	ED/ AED	11/19/2024	complete
2024.10.12	BACWA Representatives Update	BACWA ED to update Representation lists.	**ED**	11/15/2024	complete
	Non-compete memo	BACWA RPM and ED to update draft scope of work based on discussion, then circulate revised version to Exec	ED/RPM	11/15/2024	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

FY25: 11 of 12 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

October 2024

BACWA BULLETIN: Completed and circulated October Bulletin.

CLIMATE: Finalized and submitted comment letter on BCDC's draft Regional Shoreline Adaptation Plan guidance document.

NUTRIENTS: Assisted with finalization and outreach for nutrient permit implementation RFP; Prepared draft memos regarding non-competition for USEPA water quality improvement grant.

PCBs: Finalized monitoring modification request for PCB congeners based on feedback from Regional Water Board staff; circulated final guidance document to BACWA committee members.

COMMITTEE SUPPORT:

BAPPG – Participated in October pesticides committee and steering committee meetings; assisted with annual Pollutant Prioritization meeting held in-person; prepared meeting summary and graphic explaining BAPPG and BACWA Communications committee roles; coordinated with steering committee and Sagent regarding fall FOG campaign messaging and graphics; assisted with planning for 2025 meetings.

Collection Systems– Updated Baywise maps; prepared for November committee meeting.

Laboratory – Planned and participated October committee meeting; prepared meeting notes; assisted with preparation for December meeting at DSRSD.

Permits – Finalized and submitted comment letter on Basin Plan Triennial Review Staff Report and prepared draft comment letter; provided regulatory updates at October committee meeting; prepared meeting summary; revised CECs white paper to include information about nutrient removal.

Pretreatment – Reviewed revised draft of USEPA's PFAS Influent Study of POTWs; began planning for November committee meeting.

Recycled Water – Participated in October committee meeting; prepared meeting summary; assisted with planning for meetings in 2025; compiled information about water recycling from volumetric annual reports submitted to State Water Board.

Executive Board – Provided regulatory updates at October Executive Board meeting.

ADMINISTRATIVE: Participated in staff meeting; prepared performance plan for FY25 and discussed with Executive Director.

BACWA MEETINGS ATTENDED:
BAPPG (10/2)
BAPPG Pesticides Committee (10/8)
Permits Committee (10/8)
Recycled Water Committee (10/15)
Executive Board (10/18)
Lab Committee (10/22)

EXTERNAL EVENTS ATTENDED:
CASA ACE Workgroup (10/10)
CASA Regulatory Workgroup (10/17)
Nutrient Management Strategy Steering Committee (10/11)
Regional Monitoring Program Annual Meeting (10/15)

Regulatory Program Manager's Report to the Executive Board

November 2024

BACWA BULLETIN: Completed and circulated November Bulletin.

BIOSOLIDS: Prepared draft biosolids memo for Solano County Environmental Health Division.

NUTRIENTS: Assisted with consultant selection for nutrient permit implementation; prepared draft nutrient timeline handout based on HDR's draft memo; participated in NMS science planning meeting

PFAS: Discussed source control for PFAS in toilet paper with small group assembled by CASA; reviewed updates on EPA's planned PFAS Influent Study of POTWs.

REGIONAL MONITORING PROGRAM: Participated in multi-year planning meeting at SFEI; prepared information request for 2025 NPDES compliance letter regarding RMP activities.

COMMITTEE SUPPORT:

BAPPG – Participated in November pesticides committee and steering committee meetings; Regional Water Board meeting for pollution prevention award ceremony for NapaSan; discussed FOG campaign and leadership roles with committee chairs.

Collection Systems– Prepared and shared updates at November committee meeting; prepared and circulated meeting notes from committee meeting; discussed exfiltration with Clean Water SoCal staff.

Laboratory – Assisted with preparation for December meeting at DSRSD.

Permits – Review Selenium data trends and Regional Water Board staff presentation; compile information about RMP monitoring stations from NPDES permits; began preparing annual NPDES compliance letter; responded to member question about toxicity monitoring.

Pretreatment – Assisted with November committee meeting, including regulatory updates and meeting logistics.

Recycled Water – Reviewed State Water Board presentation on water recycling based on volumetric annual reports; discussed emerging regulations for onsite nonpotable reuse with WateReuse and member agencies.

Executive Board – Provided regulatory updates at meeting with Regional Water Board staff.

ADMINISTRATIVE: Participated in staff meeting; updated member contact information to reflect staffing changes; updated BACWA website as needed.

BACWA MEETINGS ATTENDED:
BAPPG Steering Committee (11/5)
BAPPG Pesticides Committee (11/12)
Collection Systems Comm. (11/14)
Pretreatment Committee (11/20)
Executive Board / Regional Water Board Joint Meeting (11/22)

EXTERNAL EVENTS ATTENDED:
Regional Monitoring Program Multi-year Planning Meeting (11/4)
Nutrient Management Strategy Planning Subcommittee (11/6)
CASA Communications Committee (11/12)
SF Bay Regional Water Board meeting (11/13)
CASA Regulatory Workgroup (11/21)