BACWA
BAY AREA
CLEAN WATER
AGENCIES

Executive Board Meeting
AGENDA
Fri, May 21, 2021 9:00 AM - 12:30 PM (PDT)

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

Agenda Item			Time	Pages
ROLL CALL, INTRODUCTIONS, AND TELECONFERENCE ETIQUETTE			**9:00 AM**	
PUBLIC COMMENT		Guidelines	**9:03 AM**	
CONSIDERATION TO TAKE AGENDA ITEMS OUT OF ORDER			**9:04 AM**	
CONSENT CALENDAR			**9:05 AM**	
1	April 16, 2021 BACWA Executive Board meeting minutes			**3-8**
2	April 27, 2021 NST meeting minutes			**9-11**
3	March 2021 Treasurer's Reports			**12-21**
APPROVALS AND AUTHORIZATIONS			**9:12 AM**	
4	Approval: BACWA Chair and Vice-Chair for FY22			**22**
5	Approval: BACWA Staff contract amendments			**23-38**
6	Authorization: EDAR Stephanie Hughes $1,500 FY21 contract increase, Amendment #3			**39-40**
7	Authorization: EDAR for SGA $3,000 FY21 contract increase, Amendment #2			**41-42**
8	Approval: BAR for Legal and IT support FY22			**43-46**
9	Approval: Amendment #2 for Carollo Engineers FY22 AIR committee support			**47-54**
10	Approval: Amendment #4 for Stephanie Hughes for FY22 BAPPG support			**55-58**
11	Approval: Livermore membership miscategorization reimbursement			**59-61**
POLICY/STRATEGIC			**9:30 AM**	
12	Informational: Update on BAPPG Pesticides support and collaboration			
13	Discussion: Nutrients			
	a. Regulatory			
	i. NST meeting agenda and recap			**62**
	ii. HDR Data Analysis update			
	b. Technical Work			
	i. NTW Debrief	Link to NTW materials		**63**
	ii. Modeling uncertainty webinar debrief and May 28 workshop			**64-65**
	iii. Assessment Framework Update - Deep Subtidal			**66**
	iv. NMS Reviewer for FY22			
	c. Governance Structure			
	i. April 23, 2021 PSC Meeting Notes			**67-69**
14	Discussion: SSS WDR - debrief from discussions with SWB staff			
	BREAK (10min)	**10:30 AM**		
15	Discussion: Engagement with Air District - Comments on Regulation 2			
16	Discussion: RMP funding levels for FY22			
17	Discussion: Alternative monitoring/CEC funding model and cost sharing			**70-92**
18	Discussion: Triennial review - BACWA engagement			**93-103**
19	Discussion: Comments on DWR draft Water Use Targets	Link to DWR study		
20	Discussion: Collaboration with Sonoma County Land trust and BABC on biosolids white paper			**104-105**
21	Discussion: Draft agenda for meeting with Water Board			**106**
OPERATIONAL			**11:15 AM**	
22	Discussion: Annual meeting date for 2022 - Feb 10			
23	Informational: Update on FY22 BACC Bid	Link to BACC webpage		
24	Discussion: BayCAN support for FY22			**107-110**
25	Discussion: Lab committee request for TNI Training Support			**111-113**
26	Discussion: Agencies' reconstitution plans and impact on future BACWA meetings			

REPORTS		12:15 AM	
27	Committee Reports		**114-117**
28	Member highlights		
29	Executive Director Report		**118-119**
30	Board Calendar and Action Items		**120-121**
31	Regulatory Program Manager Report		**122**
32	Other BACWA Representative Reports		**123-133**
	a. RMP Technical Committee	Mary Lou Esparza, Yuyun Shang, Samantha Engelage	
	b. RMP Steering Committee	Karin North; Amanda Roa; Eric Dunlavey	
	c. Summit Partners	Lorien Fono; Lori Schectel	
	d. ASC/SFEI	Lorien Fono; Eileen White	
	e. Nutrient Governance Steering Committee	Eric Dunlavey; Eileen White; Lori Schectel	
	e.i Nutrient Planning Subgroup	Eric Dunlavey	
	e.ii NMS Technical Workgroup	Eric Dunlavey	
	f. SWRCB Nutrient SAG	Lorien Fono	
	g. NACWA Taskforce on Dental Amalgam	Tim Potter	
	h. BAIRWMP	Cheryl Munoz; Florence Wedington	
	i. NACWA Emerging Contaminants	Karin North; Melody LaBella	
	j. CASA State Legislative Committee	Lori Schectel	
	k. CASA Regulatory Workgroup	Lorien Fono; Mary Cousins	
	l. ReNUWIt	Jackie Zipkin; Karin North	
	m. ReNUWIt One Water	Jackie Zipkin, Eric Hansen	
	n. RMP Microplastics Liaison	Artem Dyachenko	
	o. Bay Area Regional Reliability Project	Eileen White	
	p. WateReuse Working Group	Cheryl Munoz	
	q. San Francisco Estuary Partnership	Eileen White; Lorien Fono	
	r. CPSC Policy Education Advisory Committee	Colleen Henry	
	s. California Ocean Protection Council	Lorien Fono	
	t. Countywide Water Reuse Master Plan	Karin North, Pedro Hernandez	
	u. CHARG - Coastal Hazards Adaptation Resiliency Group	Jackie Zipkin	

33 **SUGGESTIONS FOR FUTURE AGENDA ITEMS**	**12:25 PM**	

NEXT MEETING	**12:29 PM**	
The next meeting of the Board is scheduled for June 18, 2021		

ADJOURNMENT	**12:30 PM**	

Executive Board Meeting Minutes

April 16, 2021

ROLL CALL AND INTRODUCTIONS

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

Other Attendees and Guests:

Name	Agency/Company
Amanda Roa	Delta Diablo
Armando Lopez	Union Sanitary District
Don Gray	EBMUD
Elisa Lee	Woodard & Curran
Eric Dunlavey	City of San Jose
Jeff Carson	DSRSD
Jennie Pang	SFPUC
Jennifer Dyment	BACWA
Kevin Cesar	City of Millbrae
Karin North	City of Palo Alto
Lorien Fono	BACWA
Mary Cousins	BACWA
Melody Tovar	City of Sunnyvale
Mike Connor	Consultant
Mike Falk	HDR
Noel Enoki	City of San Jose
Talyon Sortor	Fairfield-Suisun Sewer District
Teresa Herrera	Silicon Valley Clean Water
Tom Hall	EOA
Rion Merlo	Hazen & Sawyer
Vicki Sherman	City of Redwood City

Amit Mutsuddy started meeting at 9:02

ROLL CALL - taken

PUBLIC COMMENT – None

CONSIDERATION TO TAKE AGENDA ITEMS OUT OF ORDER - Item 10 will be taken at 11am.

CONSENT CALENDAR

1 March 19, 2021 BACWA Executive Board meeting minutes

2 March 15, 2021 NST meeting minutes

3 April 2, 2021 Special joint BACWA/RWB meeting minutes

4 February 2021 Treasurer's Reports

Consent Calendar Items 1, 2, 3 and 4*: A motion to approve was made by Jackie Zipkin (East Bay Dischargers Authority) and seconded by Amy Chastain (San Francisco Public Utilities Commission). The motion was approved unanimously.*

APPROVALS AND AUTHORIZATIONS

5 Approval: BAR to adopt FY22 budget and workplan

Approvals and Authorizations Item 5: *A motion to approve was made by Lori Schectel (Central Contra Costa Sanitary District) and seconded by Amit Mutsuddy (City of San Jose). The motion was approved unanimously.*

6 Approval: BAR to establish BACC legal reserve fund Executive Director explained background and reasoning for establishing a BACCA legal reserve fund. Taking on BACC administration as a Project of Special Benefit introduces new potential liability to BACWA. Establishing a legal reserve fund would support the cost of attorney fees in the unlikely event that a bid protest goes to litigation. General discussion and questions followed.

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

POLICY/STRATEGIC

7 Discussion: Nutrients

a. Regulatory

i. Nutrient Strategy Team meeting agenda Executive Director shared the agenda for the April 28th Nutrient Strategy Team (NST) meeting. The April meeting will be followed by another meeting in late May. Discussion ensued that BACWA should develop a position on implementation details for an antidegradation-based permit, such as how to implement load caps. BACWA has an opportunity to be creative and explore ways of determining compliance with load caps. These details will be discussed further at the NST meeting.

ii. HDR data analysis Scope of Work Executive Director summarized proposed scope of work for HDR. Collected information on early actions at last NST meeting. Discussed

framework to consider different subembayment configurations. HDR will consider 3 subembayment configurations and several averaging periods. Consensus was to give HDR notice to proceed with the current scope of work plus an as-needed task to be defined at a later date. Group decided to establish a steering committee to provide input on the work and propose future tasks.

b. Technical Work

i. NMS Review - Task 1 Executive Director provided the background that Mike Connor was contracted to perform to NMS review. Mike presented model & monitoring findings that highlight our improved understanding around light, grazing and nutrient limitations in the Bay. Discussion followed regarding future needs to better understand these limitations. Mike also shared technical recommendations and possible priorities for BACWA's Nutrient Technical Team. Discussion followed. A meeting has been planned for 4/27 to discuss the recommendations with the SFEI Science Manager.

ii. Modeling uncertainty webinars and workshop Executive Director shared the SCCWRP series of 4 webinars and workshop on modeling uncertainty. Executive Director asked for feedback on how to conduct future workshops \ meetings. Group suggest fewer slides, more Q&A time, and breaks to allow for discussion.

Action item: ED to share link to recording of most recent workshop when it becomes available, as well as link to sign up sheet.

c. Governance Structure Executive Director summarized Planning Subcommittee meeting. BACWA needs to discuss what we need out of science plan for the next permit.

i. March 3, 2021 PSC Meeting Notes

8 **Discussion: SSS WDR - debrief from discussions with SWB staff** BACWA RPM shared informal staff draft sanitary sewer system order. Substantial changes from 2006 version of order. RPM seeking feedback on redline version of document with key changes by end of April. General discussion followed.

9 **Informational: Update on R2 Climate Change survey** BACWA RPM shared link to final climate change survey that the regional board sent out on this week. RPM will be completing survey for 5 agencies early next week. General discussion followed. Assistance in completing survey is available via BACWA staff.

BREAK (10min) 10:40 AM

10 **Discussion: BAAQMD engagement - next steps** Item 10 was moved prior to item 9 due to scheduling constraints. Summarized new BACT for large emergency diesel engines.

Summarized timeline of BAAQMD engagement on issue with AIR district. Central Contra Costa Sanitary District shared their experience and plans to move forward with engine purchase. General discussion followed. Board member suggested that BACWA write a letter to air district highlighting our asks to make the process of establishing BACWA fair and transparent in the future.

Action item – Prepare draft letter for BAAQMD Board of Directors.

11 Informational: Alternative monitoring/CEC funding BACWA RPM summarized 2016 alternative monitoring & reporting order – which needs to evolve since the major cost saving therein, the sensitive species screening waiver, is superseded by the new Toxicity Provisions. RPM is developing a new list of proposed monitoring reductions. The Water Board plans to adopt a blanket permit amendment which would codify monitoring reductions while requiring funding to the RMP for CEC studies. There was a discussion about providing a sustainable funding source for RMP CECs projects.

Action item – RPM to share document with BACWA committees once complete for review.

12 Discussion: PFAS Phase I results and discussion of Phase II Executive Director shared that effluent concentrations were higher than influent concentrations due to transformation of precursors during secondary treatment. Unlike agencies operating under the 13267 Order to monitoring PFAS, Region 2 agencies are analyzing influent using the total organic precursor analysis, which will help quantify this observation. No problems with sample contamination. More details presentation at our May meeting when we start to think about Phase II.

Action item – *Executive Director working on getting timeline for agencies getting their data.*

OPERATIONAL

13 Discussion: Annual meeting schedule for 2022 BACWA Executive Director shared Friday January 28, 2022 as the proposed date for the 2022 Annual meeting at Scottish Rite Center in Oakland. There were concerns that this date conflicts with reporting deadlines. ED will send out a survey to choose an alternate date.

Action item – *Executive Director to send out a survey on date of annual meeting in 2022.*

14 Informational: Update on FY22 BACC Bid BACWA AED shared summary of BACC bid, website, billing summary and final steps.

15 Discussion: Discontinuation of sewer rate survey BACWA RPM shared that a document in packet provides sewer rate information from State Waterboard which is done every two years. Recommended that BACWA discontinue our own sewer rate survey as it is

duplicative with the State's efforts. The Board did not offer feedback that BACWA should continue to update the survey, so staff will not invest further resources in it.

REPORTS

16 Committee Reports BACWA Executive Director shared a recycled water committee update that a recycled water landscape guide that BACWA contributed to in 2011 is almost done.

17 Member highlights and emergency response roundtable Nothing to share.

18 Executive Director Report Executive Director shared report is in the packet.

19 Board Calendar and Action Items Executive Director shared document is in the packet.

20 Regulatory Program Manager Report RPM shared report is in the packet.

21 Other BACWA Representative Reports

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

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

c. Summit Partners Lorien Fono; Lori Schectel

d. ASC/SFEI Lorien Fono; Eileen White

e. Nutrient Governance Steering Committee Eric Dunlavey; Eileen White; Lori Schectel

e.i Nutrient Planning Subgroup Eric Dunlavey

e.ii NMS Technical Workgroup Eric Dunlavey

f. SWRCB Nutrient SAG Lorien Fono

g. NACWA Taskforce on Dental Amalgam Tim Potter

h. BAIRWMP Cheryl Munoz; Florence Wedington

i. NACWA Emerging Contaminants Karin North; Melody LaBella

j. CASA State Legislative Committee Lori Schectel

k. CASA Regulatory Workgroup Lorien Fono; Mary Cousins

l. ReNUWIt Jackie Zipkin; Karin North

m. ReNUWIt One Water Jackie Zipkin, Eric Hansen

n. RMP Microplastics Liaison Artem Dyachenko

o. Bay Area Regional Reliability Project Eileen White

p. WateReuse Working Group Cheryl Munoz

q. San Francisco Estuary Partnership Eileen White; Lorien Fono

r. CPSC Policy Education Advisory Committee Colleen Henry

s. California Ocean Protection Council Lorien Fono

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

u. CHARG - Coastal Hazards Adaptation Resiliency Group Jackie Zipkin

22 SUGGESTIONS FOR FUTURE AGENDA ITEMS

NEXT MEETING

The next meeting of the Board is scheduled for May 21, 2021

ADJOURNMENT 12:46 PM

Nutrient Strategy Team
April 28, 2021 Meeting Summary

ROLL CALL AND INTRODUCTIONS

1. **Executive Board Representatives:** Lori Schectel (Central Contra Costa Sanitary District); Amit Mutsuddy (San Jose); Eileen White (East Bay Municipal Utility District); Jacqueline Zipkin (East Bay Dischargers Authority).

Other Attendees:

Name	**Agency/Company**
Lorien Fono, Mary Cousins	BACWA
Blake Brown, Mary Lou Esparza, Melody LaBella, Amanda Cauble	CCCSD
Amanda Roa	Delta Diablo
Don Gray	EBMUD
Tom Hall	EOA
Jordan Damerel, Talyon Sortor, Meg Herston	FSSD
Karin North, Sam Engelage	Palo Alto
Eric Dunlavey	San Jose
Nohemy Revilla	SFPUC
Monte Hamamoto	SVCW
Cameron Kostigen Mumper, Melody Tovar	Sunnyvale
Tim Grillo, Armando Lopez	USD
Jennifer Harrington	Vallejo Flood & Wastewater District

The purpose of the meeting was to continue discussing BACWA's key tenets for the 3rd watershed permit, with the goal of having a key tenets document available in Summer 2021.

SOURCE APPORTIONMENT AND SUBEMBAYMENTS

- HDR's compliance feasibility data analysis should include scenarios for (a) the entire Bay as a single subembayment, (b) a two-subembayment scenario (North/South); and (c) a 4-subembayment scenario (North Bay, Central-South Bay, South Bay, Lower South Bay).
- If the 3rd watershed permit does not include a finding of impairment for the Bay or any of its subembayments, there is unlikely to be scientific justification for delineating subembayments based on unique management needs. If subembayments were included, it would be strictly to serve a regulatory purpose, such as facilitating trading.

EXCLUDING DISCHARGERS FROM LOAD CAPS

- Attendees supported the concept of excluding dischargers with dry season discharge

prohibitions from having load caps.

- Attendees moderately supported the concept of excluding very small dischargers (less than a certain kg/day threshold) from load caps, recognizing that this would not necessarily excuse them from participation in scientific studies and other regional planning efforts.
- Attendees did not support the concept of not requiring load caps for North Bay dischargers or those with a small % contribution to the overall Bay or any particular subembayment.
- It will be challenging to sell the program to Boards and the public if it is not transparent, easily explainable, and equitable. This is why attendees felt everyone needs to pay their "fair share," including smaller agencies.

COMPLIANCE IMPLICATIONS OF TRIGGERS AND LOAD CAPS

- Attendees discussed whether BACWA should support "triggers" in lieu of load caps. Exceeding a "load cap" would result in formal enforcement. By contrast, exceeding a "trigger" would have a lesser consequence such as spurring design and construction of nutrient removal facilities or implementation of a trading program. This concept would allow more time for the science work to reach a determination about impairment before dollars are invested in capital projects. Attendees did not support the concept of the triggers being lower than the load caps identified in the 2nd watershed permit.
- Attendees discussed the implications of having subembayment load caps and individual triggers, or vice versa. Some of the considerations discussed are listed below. A key takeaway is that there needs to be an adequate planning horizon between exceeding a load threshold and initiating project.

Option	Pros	Cons
Subembayment load caps Individual triggers	Load aggregation may provide a buffer for compliance; facilitates trading	Formal compliance is not under an agency's control. Large agencies that dominate subembayment loading could trip both thresholds at the same time, making the individual trigger meaningless
Subembayment triggers Individual load caps	Individual responsibility for compliance	Large agencies that dominate subembayment loading could trip both thresholds at the same time, making the subembayment trigger meaningless

NEXT STEPS

The next meeting to be held in mid- to late May 2021 will continue the discussion of draft key tenets for the 3rd watershed permit. Attendees requested that the timing of permit adoption for the 3rd watershed permit also be included as one of the key tenets. Lorien will start on a writeup of the key tenets document to distribute prior to the meeting.

The next meeting will also include a status update on the analysis of historical variability with respect to projected load caps, which is ongoing work being completed by HDR.

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

April 29, 2021

MEMO TO: Bay Area Clean Water Agencies Executive Board

MEMO FROM: Damien Charléty, Treasurer, East Bay Municipal Utility District

SUBJECT: Ninth Month FY 2021 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, 2020 through March 31, 2021** (Nine months of Fiscal Year 2021). This report covers expenditures, cash receipts, and cash transfers for the following BACWA funds:

- Bay Area Clean Water Agencies (BACWA),
- BACWA Legal Reserve Fund (Legal Rsrv),
- Water Quality Attainment Strategy (WQA CBC),
- Bay Area Biosolids Coalition (BABC),
- Bay Area Chemical Consortium (BACC),
- Water/Wastewater Operator Training (WOT),
- Prop84 Bay Area Integrated Regional Water Mgmt (PRP84)

Houck, Matt

From: Charléty, Damien
Sent: Tuesday, May 4, 2021 5:32 PM
To: Houck, Matt
Subject: RE: BACWA - March 2021 Treasurer's Report

Approved.

From: Houck, Matt <matt.houck@ebmud.com>
Sent: Thursday, April 29, 2021 3:49 PM
To: Charléty, Damien <damien.charlety@ebmud.com>
Subject: BACWA - March 2021 Treasurer's Report

Hi Damien,

Please approve BACWA - March 2021 Treasurer's Report for distribution.

Thanks,

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

Fund Balances

In FY21 BACWA has three operating funds (BACWA, Legal, and CBC) and two pass-through funds for which BACWA provides only contract administration services (WOT, BABC & BACC).

BACWA Fund: This fund provides the resources for BACWA staff, its committees, and other administrative needs. The ending fund balance on March 31, 2021 was $1,434,511 which is significantly higher than the target reserve of $209,430 which is intended to cover 3 months of normal operating expenses based on the BACWA FY21 budget. $200,017 of the ending fund balance is shown on the BACWA Fund & Investments Balance Report March 31, 2021 as encumbered to meet ongoing operating line-item expenses for BAPPG Committee Support, Legal services, IT services, Board meeting expenses, accounting services and BACWA staff support. This leaves actual unencumbered excess funds of $1,025,064 (i.e., actual fund balance of $1,234,494 less target reserves) as March 31, 2021. As the details of the costs of the various regulatory requirements included in the 2nd Nutrient Watershed Permit become better defined, these excess funds may be transferred to the CBC fund and used to offset potential Nutrient Surcharge increases to the BACWA members.

CBC Fund: This fund provides the resources for completing special investigations as well as meeting regulatory requirements. The ending fund balance on March 31, 2021 was $1,333,055 which is significantly higher than the target reserve of $1,000,000. $741,076 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 PFRAS Regional Study. This leaves an actual unencumbered fund balance of negative $408,021 (i.e., actual fund balance of $591,979 less $1,000,000 target reserves) as of March 31, 2021. Our target reserve has temporarily fallen due to a planned disbursement of $1,600,000 to fund the nutrient scientific investigations as required by the Nutrient Watershed Permit. Disbursements for FY21 from the CBC fund include $2.6m fund the nutrient scientific investigations as required by 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 March 31, 2021 (75% of the FY) are at 98%.

Expenses as of March 31, 2021 (75% of the FY) are at 77%

FY 2021
BACWA BUDGET to ACTUAL

BACWA BAY AREA CLEAN WATER AGENCIES

BACWA FY21 BUDGET	Line Item Description	FY 2021 Budget	Actual March 2021	Actual % of Budget Mar 2021	Variance	NOTES
REVENUES & FUNDING						
Dues	Principals' Contributions	$516,909	$516,910	100%	$1	5 @ $103,382
	Associate & Affiliate Contributions	$187,793	$191,673	102%	$3,880	13 Assoc @ $8,531; 45 Affiliate @ $1,708.
Fees	Clean Bay Collaborative	$675,000	$675,750	100%	$750	Prin: $450,000; Assoc/Affil: $225,000
	Nutrient Surcharge	$1,700,000	$1,699,970	100%	-$30	See Nutrient Surcharge Spreadsheet
	Voluntary Nutrient Contributions	$0	$0	0%	$0	
Other Receipts	AIR Non-Member	$7,075	$7,074	100%	-$1	Santa Rosa
	BAPPG Non-Members	$3,954	$3,953	100%	-$1	Stanta Rosa, Sac Reg'l, Vacaville; $1,317/each
	Other	$0	$2,601	0%	$2,601	
Fund Transfer	Special Program Admin Fees (WOT)	$5,202	$0	0%	-$5,202	Flat fee
	Special Program Admin Fees (BACC)	$20,010	$0	0%	-$20,010	300 hours of AED support, based on hours billed
	Special Program Admin Fees (BABC)	$6,000	$2,274	38%	-$3,726	AED and RPM support, hours billed
Interest Income	LAIF	$20,000	$16,654	83%	-$3,346	BACWA, Legal, & CBC Funds invested in LAIF
	Higher Yield Investments	$18,000	$0	0%	-$18,000	Alternative Investment Interest (Legal & CBC Funds invested in AltInv)
	Total Revenue	**$3,159,943**	**$3,116,859**	**98.64%**	**-$43,084**	

BACWA FY21 BUDGET	Line Item Description	FY 2021 Budget	Actual March 2021	Actual % of Budget Mar 2021	Variance	NOTES
EXPENSES						
Labor						
	Executive Director	$190,000	$126,667	67%	-$63,333	No change from FY20 contract
	Assistant Executive Director	$102,551	$79,485	78%	-$23,066	$66.7/hour; Reflects 1500 hours /yr
	Regulatory Program Manager	$141,170	$109,805	78%	-$31,365	$100.16/hour; Reflects 1375 hours/yr
	Total	**$433,721**	**$315,957**	**73%**	**-$117,764**	
Administration						
	EBMUD Financial Services	$42,448	$20,561	48%	-$21,887	
	Auditing Services	$5,345	$0	0%	-$5,345	Financial Audit Services through EBMUD
	Administrative Expenses	$7,959	$194	2%	-$7,765	Travel, Supplies, Parking, Mileage, Tolls, Misc.
	Insurance	$4,776	$4,971	104%	$195	SLIP Insurance. Alliant Insurance.
	Total	**$60,528**	**$25,726**	**43%**	**-$34,802**	
Meetings						
	EB Meetings	$2,653	$257	10%	-$2,396	Catering, Venue, other expenses
	Annual Meeting	$14,369	$2,519	18%	-$11,850	Catering, Venue, other expenses
	Pardee	$6,367	$0	0%	-$6,367	Catering, Venue, other expenses
	Misc. Meetings	$5,306	$571	11%	-$4,735	Hol & Comm Chair Lunch, Staff Mtgs, Fin Comm, Summit Ptnrs, CASA, NACWA Tech WS, Low Flow WS
	Total	**$28,695**	**$3,347**	**12%**	**-$25,348**	
Communication						
	Website Hosting	$612	$57	9%	-$555	Computer Courage
	File Storage	$765	$720	94%	-$45	Box.com
	Website Development/Maintenance	$1,530	$0	0%	-$1,530	Domain registrations, website changes
	IT Support	$2,652	$0	0%	-$2,652	As needed
	Other Commun	$1,785	$1,641	92%	-$144	MS Exchange, Survey Monkey, Carbonite, Doodle Polls, PollEv, GoToMtg, HelloSign, Zoom
	Total	**$7,344**	**$2,418**	**33%**	**-$4,926**	

FY 2021
BACWA BUDGET to ACTUAL

EXPENSES						
Legal						
	Regulatory Support	$2,706	$0	0%	-$2,706	Downey Brand LLP
	Executive Board Support	$2,176	$1,165	54%	-$1,011	Day Carter & Murphy LLP
	Total	**$4,882**	**$1,165**	**24%**	**-$3,717**	
Committees						
	AIR	$76,000	$48,908	64%	-$27,092	$75k consulting support, $1k misc expenses. Carollo Engineers
	BAPPG	$130,000	$91,675	71%	-$38,325	Includes CPSC @ $10,000, OWOW @ $10,000, and Pest. Reg Spt. @ $60,000. S.Hughes, TDC and SGA
	Biosolids Committee	$1,000	$0	0%	-$1,000	
	Collections System	$1,000	$0	0%	-$1,000	
	InfoShare Groups	$1,750	$0	0%	-$1,750	Funds for 2 workgroups ($750 for Asset Mgmt - new in FY21; $1,000 for O&M)
	Laboratory Committee	$1,000	$0	0%	-$1,000	
	Permits Committee	$1,300	$0	0%	-$1,300	All meetings moved to include lunch hour for commuting purposes
	Pretreatment	$1,000	$0	0%	-$1,000	
	Recycled Water Committee	$1,000	$0	0%	-$1,000	
	Misc Committee Support	$45,000	$0	0%	-$45,000	
	Manager's Roundtable	$1,000	$0	0%	-$1,000	
	Total	**$260,050**	**$140,583**	**54%**	**-$119,467**	
Collaboratives						
	Collaboratives					
	State of the Estuary (SFEP-biennial)	$20,000	$0	0%	-$20,000	Biennial in Odd Fiscal Years. (Paid bienniely in odd years for even year conference)
	Arleen Navarret Award	$0	$0	0%	$0	Biennial in Even Fiscal Years. Award amount increased in FY20
	FWQC (Fred Andes)	$7,500	$0	0%	-$7,500	
	Stanford ERC (ReNUWIt)	$10,000	$0	0%	-$10,000	
	Misc	$5,000	$0	0%	-$5,000	BayCAN, NBWA
	Total	**$42,500**	**$0**	**0%**	**-$42,500**	
Other						
	Unbudgeted Items					
	Other	$0	$0	0%	$0	
		$0	**$0**	**0%**	**$0**	
Tech Support						
	Technical Support					
	Nutrients					
	Watershed	$2,800,000	$2,600,000	93%	-$200,000	Advance funding for 2nd Watershed Permit Science Studies. SFEI
	NMS Voluntary Contributions	$0	$30,000	0%	$30,000	SFEI \ City of Palo Alto 2017 Lower South Bay modeling
	Additional work under permit	$100,000	$34,500	35%	-$65,500	Includes HDR PO for $225k spread out over FY20-24.
	Regional Study on Nature based systems	$200,000	$106,708	53%	-$93,292	New Line item in FY20. SFEI
	Regional Recycling Evaluation	$60,000	$46,546	78%	-$13,454	HDR PO for $154K FY20-24
	Nutrient Workshop(s)	$0	$0	0%	$0	Pilot Studies/Plant Review/InDecative Technologies
	General Tech Support	$250,000	$10,456	4%	-$239,544	AB617 emission factors, nutrient technical review, other nutrient support, PFAS
	CEC Investigations	$50,000	$0	0%	-$50,000	Support for studies through RMP (PFAS in FY21). SFEI
	Risk Reduction	$7,500	$0	0%	-$7,500	$50,000 over 5 years (FY19-FY23) 2 Contracts for $25,000 each over FY19, 20, & 21
	Total	**$3,467,500**	**$2,828,210**	**82%**	**-$639,290**	
	TOTAL EXPENSES	**$4,305,220**	**$3,317,406**	**77.06%**	**-$987,814**	
	NET INCOME BEFORE TRANSFERS	**-$1,145,277**				
	TRANSFERS FROM RESERVES	**$1,145,277**				aligns with strategy of drawing down reserves to lessen impact of Nutrient Surcharge
	NET INCOME AFTER TRANSFERS	**$0**				
	TOTAL OPERATING BUDGET	**$837,720**				
	OPERATING RESERVE	**$209,430**				

BACWA Fund Report as of March 31, 2021

BACWA FUND BALANCES - DATA PROVIDED BY ACCOUNTING DEPT.

DEPTID	DESCRIPTION	FISCAL YEAR BEGINNING FUND BALANCE	TOTAL RECEIPTS TO-DATE	TOTAL DISBURSEMENTS TO-DATE	MONTH-ENDING FUND BALANCE	OUTSTANDING ENCUMBRANCES	MONTH-END UNOBLIGATED FUND BALANCE
800	BACWA	1,195,233	728,474	489,196	1,434,511	200,017	1,234,494
804	LEGAL RSRV	300,000	-	-	300,000	-	300,000
805	CBC	1,772,881	2,388,384	2,828,210	1,333,055	741,076	591,979
	SUBTOTAL 1	*3,268,114*	*3,116,858*	*3,317,406*	*3,067,566*	*941,093*	*2,126,473*
802	BABC	*216,514*	93,250	164,591	145,173	*40,329*	104,844
806	BACC	*(1,563)*	-	*5,265*	(6,828)	*550*	(7,378)
810	WOT	276,164	-	-	276,164	-	276,164
	SUBTOTAL 2	*491,115*	*93,250*	*169,856*	*414,509*	*40,879*	*373,630*
*811	PRP84	196,806	-	-	196,806	-	196,806
	SUBTOTAL 3	*196,806*	-	-	*196,806*	-	*196,806*
	GRAND TOTAL	**3,956,035**	**3,210,108**	**3,487,262**	**3,678,881**	**981,972**	**2,696,909**

Top Chart: Reflects CASH on the Books — Includes Encumbrances
Bottom Chart: Reflects CASH in the Bank — Includes Payables (bills received but not paid)
Allocations: Priority for non-liquid investments

BACWA INVESTMENTS BALANCES - DATA PROVIDED BY TREASURY DEPT.

DEPTID	DESCRIPTION	FISCAL YEAR BEGINNING FUND BALANCE	TOTAL RECEIPTS TO-DATE	TOTAL DISBURSEMENTS TO-DATE	MONTH-ENDING FUND BALANCE	RECONCILIATION TO FINANCIAL STATEMENTS	MONTH-END RECONCILED FUND BALANCE	UNINVESTED CASH BALANCES	LAIF INVESTMENTS AMOUNTS	LAIF INVESTMENTS PERCENTAGE	ALTERNATIVE INVESTMENTS AMOUNTS	ALTERNATIVE INVESTMENTS IDENTIFIERS	ALTERNATIVE INVESTMENT INSTRUCTIONS AND NOTES
800	BACWA	1,195,233	728,474	489,196	1,434,511	51,409	1,485,920	856,375	629,545	28%	-		priority # 3 for allocation
804	LEGAL RSRV	300,000	-	-	300,000	-	300,000	-	300,000	13%	-		priority # 1 for allocation
805	CBC	1,772,881	2,388,384	2,828,210	1,333,055	-	1,333,055	-	1,333,055	59%	-		priority # 2 for allocation
	SUBTOTAL 1	3,268,114	3,116,858	3,317,406	3,067,566	51,409	3,118,975	856,375	2,262,600	100%	-		
802	BABC	216,514	93,250	164,591	145,173	-	145,173	145,173	-	0%	-		pass-through funds, no allocation
806	BACC	(1,563)	-	5,265	(6,828)	-	(6,828)	(6,828)	-	0%	-		
810	WOT	276,164	-	-	276,164	-	276,164	276,164	-	0%	-		pass-through funds, no allocation
	SUBTOTAL 2	491,115	93,250	169,856	414,509	-	414,509	414,509	-	0%	-		
811	PRP84	196,806	-	-	196,806	-	196,806	196,806	-	0%	-		pass-through funds, no allocation
	SUBTOTAL 3	196,806	-	-	196,806	-	196,806	196,806	-	0%	-		
	GRAND TOTAL	**3,956,035**	**3,210,108**	**3,487,262**	**3,678,881**	**51,409**	**3,730,290**	**1,467,690**	**2,262,600**	**-**			
							-	-	-		-		

*Org 811 beg balance adjusted to reflect disbursement (147.7K) accrued after June 2020 TR published.

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

Reconciliation to Trial Balance - accrual basis

Per Report above:					
General	3,116,858	STB	1493	2,262,600	
WOT	93,250	STB	1505	1,467,690	
PROP	-			**3,730,290**	-
subtotal	**3,210,108**	STB	2135	(51,409)	
				3,678,881	-

Billings-Pending Receipts

4686	Mem Contrib	(750)
4687	Transfer	-
4690	Assoc Contrib	(1,675)
4696	Other	20
4731	State Grant	-
4732	Grant Retention	-
subtotal		**(2,405)**

Trial Balance Revenue Accounts

4411	Interest	(16,653)
4686	Mem Contrib	(1,285,160)
4687	Transfer	(2,274)
4690	Assoc Contrib	(189,997)
4696	Other	(1,713,619)
4731	State Grant	-
4732	Grant Retention	-
subtotal		**(3,207,703)**
Difference		**-**

BACWA Revenue Report as of March 31, 2021

FUND #	DEPARTMENT	JOB	REVENUE TYPE	AMENDED BUDGET	CURRENT PERIOD			YEAR TO DATE				UNOBLIGATED
					Admin & General	Contributons	Interest, Transfers,Others	Admin & General	Contributons	Interest, Transfers,Others	ACTUAL	
800	Bay Area Clean Water Agencies	0408511	Administrative & General	-	-	-	-	-	-	-	-	-
800	Bay Area Clean Water Agencies	1011099	BDO Member Contributions	516,909	-	-	-	-	516,910	-	516,910	(1)
800	Bay Area Clean Water Agencies	1011108	BDO Other Receipts	-	-	-	-	-	-	-	-	-
800	Bay Area Clean Water Agencies	1011109	BDO Fund Transfers	5,202	-	-	(2,274)	-	-	-	-	5,202
800	Bay Area Clean Water Agencies	1011117	BDO- Interest Income from LAIF	20,000	-	-	-	-	-	3,989	3,989	16,011
800	Bay Area Clean Water Agencies	1011133	BDO Assoc.&Affiliate Contr	187,793	-	-	-	-	112,615	-	112,615	75,178
800	Bay Area Clean Water Agencies	1014251	BDO Non-Member Contr BAPPG	3,954	-	-	-	-	3,953	-	3,953	1
800	Bay Area Clean Water Agencies	1014252	BDO Non-Member Contr AIR	7,075	-	-	-	-	7,074	-	7,074	1
800	Bay Area Clean Water Agencies	1014511	BDO-Alternative Investment Inc	18,000	-	-	-	-	-	-	-	18,000
800	Bay Area Clean Water Agencies	1015567	BACC - AED Support	20,010	-	-	-	-	-	-	-	20,010
800	Bay Area Clean Water Agencies	1015568	BABC - AED and RPM Support	6,000	-	-	2,274	-	-	2,274	2,274	3,726
800	Bay Area Clean Water Agencies	1015265	BDO Other Receipts (Misc)	-	-	-	-	-	2,601	-	2,601	(2,601)
800	Bay Area Clean Water Agencies	1015266	BDO Affiliate/Associate Dues	-	-	-	-	-	41,004	-	41,004	(41,004)
800	Bay Area Clean Water Agencies	1015267	BDO Affil/CS/Assoc Dues	-	-	1,709	-	-	38,054	-	38,054	(38,054)
	BACWA TOTAL			**784,943**	**-**	**1,709**	**-**	**-**	**722,211**	**6,263**	**728,474**	**56,469**
805	WQA-CBC	1011099	BDO Member Contributions	675,000	-	750	-	-	675,750	-	675,750	(750)
805	WQA-CBC	1011108	BDO Other Receipts	1,700,000	-	-		-	1,699,970	-	1,699,970	30
805	WQA-CBC	1011117	BDO- Interest Income from LAIF	-	-	-	-	-	-	12,664	12,664	(12,664)
805	WQA-CBC	1014528	BDO-Voluntary Nutrient Contrib	-	-	-	-	-	-	-	-	-
	WQA CBC TOTAL			**2,375,000**	**-**	**750**	**-**	**-**	**2,375,720**	**12,664**	**2,388,384**	**(13,384)**
	TOTAL			**3,159,943**	**-**	**2,459**	**-**	**-**	**3,097,931**	**18,927**	**3,116,858**	**43,085**

	DEPARTMENT	JOB	REVENUE TYPE	AMENDED BUDGET	CURRENT PERIOD			YEAR TO DATE				UNOBLIGATED
					Admin & General	Contributons	Interest, Transfers, Others	Admin & General	Contributons	Interest, Transfers, Others	ACTUAL	
802	BABC	1011099	BDO Member Contributions	-	-	-	-	-	93,250	-	93,250	(93,250)
802	BABC	1011109	BDO Fund Transfers	-	-	-	-	-	-	-	-	-
	BABC TOTAL			**-**	**-**	**-**	**-**	**-**	**93,250**	**-**	**93,250**	**(93,250)**
810	WOT	1011117	BDO- Interest Income from LAIF	-	-	-	-	-	-	-	-	-
	WOT TOTAL			**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

	DEPARTMENT	JOB	REVENUE TYPE	AMENDED BUDGET	CURRENT PERIOD			YEAR TO DATE				UNOBLIGATED
					Admin & General	Contributons	Interest, Transfers, Others	Admin & General	Contributons	Interest, Transfers, Others	ACTUAL	
811	PROP 84	1011142	Administrative Support	-	-	-	-	-	-	-	-	-
	PROP TOTAL			**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Grand Total			**3,159,943**	**-**	**2,459**	**-**	**-**	**3,191,181**	**18,927**	**3,210,108**	**(50,165)**

BACWA Expense Detail Report for March 31, 2021

EXPENSE TYPE	JOB	AMENDED BUDGET	CURRENT PERIOD ENC	CURRENT PERIOD PV	CURRENT PERIOD DA	CURRENT PERIOD JV	YEAR TO DATE ENC	YEAR TO DATE PV	YEAR TO DATE DA	YEAR TO DATE JV	OBLIGATED	UNOBLIGATED
LABOR						-						
AS-Executive Director	1011123	190,000	(31,667)	31,667	-	-	63,333	126,667	-	-	190,000	-
AS-Assistant Executive Directo	1011124	102,551	(10,405)	10,405	-	-	23,066	79,485	-	-	102,551	-
AS-Regulatory Program Manager	1011149	141,170	(11,662)	11,662	-	-	29,792	109,805		-	139,597	1,573
ADMINISTRATION												
AS-EBMUD Financial Services	1011125	42,448	-	-	-	-	21,887	20,561	-	-	42,448	-
AS-Audit Services	1014512	5,345	-	-	-	-	5,240	5,240	-	(5,240)	5,240	105
AS-BACWA Admin Expense	1011118	7,959	-	-	-	-	-	-	194	-	194	7,765
AS-Insurance	1011126	4,776	-	-	-	-	-	-	4,971	-	4,971	(195)
MEETINGS												
GBS-Meeting Support-Annual	1014514	14,369	-	-	2,519	-	-	-	2,519	-	2,519	11,850
GBS-Meeting Support-Exec Bd	1014513	2,653	-	-	-	-	2,653	-	257	-	2,910	(257)
GBS-Meeting Support-Misc	1014516	5,306	-	-	165	-	-	-	571	-	571	4,735
GBS-Meeting Support-Pardee	1014515	6,367	-	-	-	-	-	-	-	-	-	6,367
COMMUNICATION												
CAR-BACWA File Storage	1014518	765	-	-	720	-	-	-	720	-	720	45
CAR-BACWA IT Software	1014520	1,785	-	-	64	-	-	-	1,641	-	1,641	144
CAR-BACWA IT Support	1014519	2,652	-	-	-	-	2,652	-	-	-	2,652	-
CAR-BACWA Website Dev/Maint	1011116	612	-	-	27	-	-	-	57	-	57	555
CAR-BACWA Website Hosting	1014517	1,530	-	-	-	-	-	-	-	-	-	1,530
LEGAL												
LS-Executive Board Support	1011110	2,176	-	-	-	-	1,091	1,165	-	-	2,256	(80)
LS-Regulatory Support	1011107	2,706	-	-	-	-	2,626	-	-	-	2,626	80
COMMITTEES												
AIR-Air Issues&Regulation Grp	1014253	76,000	(15,070)	15,070	-	-	26,092	48,908	-	-	75,000	1,000
BC-BAPPG	1011147	130,000	-	-	-	-	21,585	68,615	25,085	(2,025)	113,260	16,740
BC-Biosolids Committee	1011101	1,000	-	-	-	-	-	-	-	-	-	1,000
BC-Collections System	1011097	1,000	-	-	-	-	-	-	-	-	-	1,000
BC-InfoShare Groups	1011102	1,750	-	-	-	-	-	-	-	-	-	1,750
BC-Laboratory Committee	1011103	1,000	-	-	-	-	-	-	-	-	-	1,000
BC-Permit Committee	1011098	1,300	-	-	-	-	-	-	-	-	-	1,300
BC-Pretreatment Committee	1011146	1,000	-	-	-	-	-	-	-	-	-	1,000
BC-Water Recycling Committee	1011100	1,000	-	-	-	-	-	-	-	-	-	1,000
BC-Manager's Roundtable	1014777	1,000	-	-	-	-	-	-	-	-	-	1,000
BC-Miscellaneous Committee Sup	1011104	45,000	-	-	-	-	-	-	-	-	-	45,000
COLLABORATIVES												
CAS-Arleen Navaret Award	1012201	-	-	-	-	-	-	-	-	-	-	-
CAS-FWQC	1012202	7,500	-	-	-	-	-	-	-	-	-	7,500
CAS-Misc Collaborative Sup	1014521	5,000	-	-	-	-	-	-	-	-	-	5,000
CAS-PSSEP	1011112	20,000	-	-	-	-	-	-	-	-	-	20,000
CAS-Stanford ERC	1011969	10,000	-	-	-	-	-	-	-	-	-	10,000
BACWA TOTAL		**837,720**	**(68,804)**	**68,804**	**3,495**	**-**	**200,017**	**460,446**	**36,015**	**(7,265)**	**689,213**	**148,507**
TECH SUPPORT												
WQA-CE-Technical Support	1011127	250,000	(8,500)	8,500	-	-	104,076	10,456	3,548	(3,548)	114,532	135,468
WQA-CE-Nutrient WS Permit Comm	1014021	2,800,000	-	-	-	-	-	-	2,600,000	-	2,600,000	200,000
WQA-CE Risk Reduction	1014023	7,500	-	-	-	-	-	-	-	-	-	7,500
WQA-CE Addl Work Under Permit	1014254	100,000	-	-	-	-	147,500	34,500	-	-	182,000	(82,000)
WQA-CE Voluntary Nutr Contrib	1014529	-	-	-	-	-	-	-	30,000	-	30,000	(30,000)
Nutrient Workshops	1015015	-	-	-	-	-	-	-	-	-	-	-
WQA-CE-Nature Based Solutions	1015367	200,000	-	-	-	-	329,212	106,708	-	-	435,920	(235,920)
Recycled Water Evaluation	1015566	60,000	-	-	-	-	95,288	46,546	-	-	141,834	(81,834)
WQA - CEC Investigations	1015569	50,000	-	-	-	-	65,000	-	-	-	65,000	(15,000)
TECH SUPPORT (CBC) TOTAL		**3,467,500**	**(8,500)**	**8,500**	**-**	**-**	**741,076**	**198,210**	**2,633,548**	**(3,548)**	**3,569,286**	**(101,786)**
GRAND TOTAL		**4,305,220**	**(77,304)**	**77,304**	**3,495**	**-**	**941,093**	**658,656**	**2,669,563**	**(10,813)**	**4,258,499**	**46,721**
BABC												
AS-Assistant Executive Directo	1011124	-	-	-	-	-	-	-	-	-	-	-
Administrative Support	1011142	-	-	-	-	-	-	-	-	2,274	2,274	(2,274)
BDO Contract Expenses	1011143	-	-	-	-	-	-	-	4,621	-	4,621	(4,621)
AS-Regulatory Program Manager	1011149	-	-	-	-	-	-	-	-	-	-	-
Technology Research & Developm	1015372	-	-	-	-	-	-	-	5,000	-	5,000	(5,000)
Academia Research & Developmen	1015373	-	-	-	-	-	-	64,500	-	-	64,500	(64,500)
Collateral Development	1015374	-	-	-	-	-	-	1,125	37,400	-	38,525	(38,525)
Program Manager Expense	1015376	-	(7,986)	7,986	-	-	40,329	49,671	-	-	90,000	(90,000)
BABC TOTAL		**-**	**(7,986)**	**7,986**	**-**	**-**	**40,329**	**115,296**	**47,021**	**2,274**	**204,920**	**(204,920)**
BACC												
Administrative Support	1011142	-	(1,955)	1,955	814	-	550	4,451	814	-	5,815	(5,815)
BACC TOTAL		**-**	**(1,955)**	**1,955**	**814**	**-**	**550**	**4,451**	**814**	**-**	**5,815**	**(5,815)**
WOT												
Administrative Support	1011142	-	-	-	-	-	-	-	-	-	-	-
BDO Contract Expenses	1011143	-	-	-	-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-	-	-	-
GRAND TOTAL (BDO, CBC, BABC, BACC, WOT)		**4,305,220**	**(87,245)**	**87,245**	**4,309**	**-**	**981,972**	**778,403**	**2,717,398**	**(8,539)**	**4,469,234**	**(164,014)**

BACWA Expense Detail Report for March 31, 2021

DEPTID	DEPARTMENT	EXPENSE TYPE	AMENDED BUDGET	CURRENT PERIOD ENC	CURRENT PERIOD PV	CURRENT PERIOD DA	CURRENT PERIOD JV	YEAR TO DATE ENC	YEAR TO DATE PV	YEAR TO DATE DA	YEAR TO DATE JV	OBLIGATED	UNOBLIGATED
811	Prop84BayAreaIntegRegnlWtrMgmt	BDO Fund Transfers	-	-	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegnlWtrMgmt	Administrative Support	-	-	-	5,840	(5,840)	-	-	5,840	(5,840)	-	-
811	Prop84BayAreaIntegRegnlWtrMgmt	BDO Contract Expenses	-	-	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegnlWtrMgmt	Regional Green Infrastructure	-	-	-	118,045	(118,045)	-	-	118,045	(118,045)	-	-
811	Prop84BayAreaIntegRegnlWtrMgmt	Hacienda Ave Green St Improvem	-	-	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegnlWtrMgmt	Sears Point Wtlnd & Wtrshd Res	-	-	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegnlWtrMgmt	Bay Friendly Landscape TP	-	-	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegnlWtrMgmt	Weather Based Irrigation Cntrl	-	-	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegnlWtrMgmt	High Efficiency Toilet & UR	-	-	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegnlWtrMgmt	High Efficiency Toilet & UI	-	-	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegnlWtrMgmt	High Efficiency Clothes Washrs	-	-	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegnlWtrMgmt	Napa Co. Rainwater HP	-	-	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegnlWtrMgmt	Conservation Program Admin	-	-	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegnlWtrMgmt	Flood Infrastructure Mapping T	-	-	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegnlWtrMgmt	Stormwater Improvements & PBP	-	-	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegnlWtrMgmt	Richmond Shoreline & San PFP	-	-	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegnlWtrMgmt	Pescadero Integrated FRAH	-	-	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegnlWtrMgmt	Restoration Guidance, San FC	-	-	-	15,353	(15,353)	-	-	15,353	(15,353)	-	-
811	Prop84BayAreaIntegRegnlWtrMgmt	SF Estuary Steelhead MP	-	-	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegnlWtrMgmt	Stream Restoration in North BD	-	-	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegnlWtrMgmt	Watershed Program Admnstrtn	-	-	-	8,463	(8,463)	-	-	8,463	(8,463)	-	-
	PRP84 TOTAL		**-**	**-**	**-**	**147,701**	**(147,701)**	**-**	**-**	**147,701**	**(147,701)**	**-**	**-**

BACWA Revenue Report as of March 31, 2021

DEPTID	DEPARTMENT	JOB	REVENUE TYPE	AMENDED BUDGET	CURRENT PERIOD			YEAR TO DATE				UNOBLIGATED
					Admin & General	Contributons	Interest, Transfers,Others	Admin & General	Contributons	Interest, Transfers,Others	ACTUAL	
811	Prop84BayAreaIntegRegnlWtrMgmt	1011117	BDO- Interest Income from LAIF	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegnlWtrMgmt	1011142	Administrative Support	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegnlWtrMgmt	1011691	Water Efficient Landscape Reba	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegnlWtrMgmt	1011702	Sears Point Wtlnd & Wtrshd Res	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegnlWtrMgmt	1011705	Regional Green Infrastructure	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegnlWtrMgmt	1011706	Hacienda Ave Green St Improvem	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegnlWtrMgmt	1011707	WQ Improve Flood Mgmt & EP	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegnlWtrMgmt	1011911	Stream Restoration w/Schools i	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegnlWtrMgmt	1011912	Flood Infrastructure Mapping	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegnlWtrMgmt	1012209	Water Efficient LRP	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegnlWtrMgmt	1012210	Bay Friendly Landscape TP	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegnlWtrMgmt	1012211	Weather Based Irrigation Cntrl	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegnlWtrMgmt	1012212	High Efficiency Toilet & UR	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegnlWtrMgmt	1012213	High Efficiency Toilet & UI	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegnlWtrMgmt	1012214	High Efficiency Clothes Washrs	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegnlWtrMgmt	1012215	Napa Co. Rainwater HP	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegnlWtrMgmt	1012216	Conservation Program Admin	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegnlWtrMgmt	1012218	Stream Restoration in North BD	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegnlWtrMgmt	1012219	Flood Infrastructure Mapping T	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegnlWtrMgmt	1012220	Stormwater Improvements & PBP	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegnlWtrMgmt	1012221	Richmond Shoreline & San PFP	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegnlWtrMgmt	1012222	Pescadero Integrated FRAH	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegnlWtrMgmt	1012223	Restoration Guidance, San FC	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegnlWtrMgmt	1012224	SF Estuary Steelhead MP	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegnlWtrMgmt	1012225	Watershed Program Admnstrtn	-	-	-	-	-	-	-	-	-
	PROP 84 TOTAL			**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

BACWA EXECUTIVE BOARD ACTION REQUEST

AGENDA NO.: 4

MEETING DATE: May 21, 2021

TITLE: Nomination and Election of BACWA Executive Board Chair and Vice Chair for FY22

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

RECOMMENDED ACTION

Board nomination and election of the BACWA Executive Board Chair and Vice Chair.

SUMMARY

Section 7 of the Joint Powers Agreement establishing BACWA states that the agency shall designate a Chair and Vice Chair, chosen by the Executive Board, from the members of the Executive Board. These positions each have a one year term that coincides with BACWA's fiscal year. Historically, most BACWA Chairs and Vice Chairs are asked to serve for two consecutive terms.

Responsibilities of the Chair include signing contracts, approving payments, convening and presiding over Executive Board meetings, and serving on the BACWA Finance Committee. Responsibilities of the Vice Chair include serving as the Chair in the absence of the regularly elected Chair and serving on the BACWA Finance Committee.

BACWA Leadership History

Timeframe	Chair	Vice-Chair
2000 – 2002	Chuck Weir (EBDA)	Jim Kelly (CCCSD)
2002 – 2004	Jim Kelly (CCCSD)	Michael Carlin (SFPUC)
2004 – Feb. 2005	Michael Carlin (SFPUC)	Dave Williams (EBMUD)
March 2005 – June 2005	Dave Williams (EBMUD)	Bill Keaney (SFPUC)
July 2005 – June 2006	Bill Keaney (SFPUC)	Chuck Weir (EBDA)
July 2006 – May 2007	Bill Keaney (SFPUC)	Dave Williams (EBMUD)
June 2007 – June 2008	Dave Williams (EBMUD)	Dave Tucker (EBMUD)
July 2008 – March 2010	Dave Tucker (SJ)	Doug Craig (CCCSD)
April 2010 – June 2010	Dave Tucker (SJ)	Arleen Navarret (SFPUC)
July 2010 – October 2010	Arleen Navarret (SFPUC)	Ben Horenstein (EBMUD)
Nov 2010 – Feb 2013	Ben Horenstein (EBMUD)	Tommy Moala/Laura Pagano (SFPUC)
March 2013 – June 2015	Mike Connor (EBDA)	Laura Pagano (SFPUC)
July 2015 – June 2017	Laura Pagano (SFPUC)	Jim Ervin (SJ)
July 2017 – Feb 2018	Jim Ervin (SJ)	Lori Schectel (CCCSD)
March 2018 – June 2020	Lori Schectel (CCCSD)	Amit Mutsuddy (SJ)
July 2020 – present	Amit Mutsuddy (SJ)	Eileen White (EBMUD)

FISCAL IMPACT

This action has no fiscal impact.

ALTERNATIVES

This action does not require consideration of alternatives.

BACWA EXECUTIVE BOARD ACTION REQUEST

AGENDA NO.: _5_

MEETING DATE: May 21, 2021

TITLE: Approval of Fiscal Year 2021 Amendments to Contracts

☐RECEIPT ☐DISCUSSION ☐RESOLUTION ☒APPROVAL

RECOMMENDED ACTION

Authorize the approval of amendments to contracts to implement the Fiscal Year 2022 BACWA/CBC Budget and Workplan.

SUMMARY

The BACWA Fiscal Year 2021 begins July 1, 2021. In order to prevent a gap in core services, BACWA typically executes contracts for the coming FY before the end of June. The amendments summarized below ensure that, as of July 1, 2021 BACWA will have Executive Director (ED) and an Assistant Executive Director (AED) services available. These service contracts were included in the BACWA FY 2022 workplan and budget and will become effective July 1, 2021. There are no benefits associated with the service contracts. All contracts have a term of one year and will terminate on June 30, 2022.

Contractor	Services	Contract Amount	Number of Hours
Lorien Fono (Amendment #2)	Executive Director Services	$190,000	N/A
Jennifer Dyment (Amendment #2)	Assistant Executive Director Services	$108,800	1,600 hours (incl. 400 hours for BACC)
Mary Cousins (Amendment #1)	Regulatory Program Management Services	$127,400	1,300 hours

FISCAL IMPACT

The funding for these contracts is consistent with the FY 2022 Workplan and Budget for BACWA/CBC.

ALTERNATIVES

No other alternatives were considered for these contracts as the terms of these agreements are consistent with BACWA contracting policies.

***Attachments*:**

1. Lorien Fono Amendment #2
2. Jennifer Dyment Amendment #2
3. Mary Cousins Amendment #1
4. Original Contracts

Approved: _____ **Date:** May 21, 2021

Amit Mutsuddy, Chair

Amend 2 LFono

AMENDMENT NO. 2
TO AGREEMENT BETWEEN
BAY AREA CLEAN WATER AGENCIES and
Lorien Fono
FOR
Executive Director Support

This Amendment No. 2 is made this 21st day of May, 2021, in the City of Oakland and County of Alameda, State of California, to that certain agreement of December 19, 2019 (original agreement), by and between Lorien Fono and Bay Area Clean Water Agencies, (BACWA) (the "Agreement") in consideration of the covenants hereinafter set forth.

1. BACWA and Lorien Fono agree to a new contract amount of $190,000 for Executive Director Support for Fiscal Year 2022.

2. The new contract termination date will be June 30, 2022.

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

BAY AREA CLEAN WATER AGENCIES

May 21, 2021

By _____ Date _____

Amit Mutsuddy, Chair
BACWA Executive Board

By _____ Date _____

Lorien Fono

BAY AREA CLEAN WATER AGENCIES
PROFESSIONAL SERVICES CONTRACT
Executive Director

This PROFESSIONAL SERVICES CONTRACT, effective December 20, 2019, is between Bay Area Clean Water Agencies (BACWA), a joint powers agency which exists as a public entity separate and apart from its Member Agencies, created January 4, 1984 by a Joint Powers Agreement between Central Contra Costa Sanitary District, East Bay Dischargers Association, East Bay Municipal Utility District, the City and County of San Francisco and the City of San Jose, with a mailing address of P.O. Box 24055, MS 702, Oakland, CA 94623, and Lorien Fono (Consultant), an individual doing business at 1815 Delaware Street, Berkeley, CA for professional services as described in any Exhibit A attached hereto.

The primary purpose of BACWA is to advocate for regulations that are based on sound science. BACWA often supports scientific investigations such as funding the collection of data on aquatic life and quality of waters in the San Francisco Bay system, interpretation of the data to assess the effects of pollution and other factors on the Bay, developing and disseminating information about the Bay, and carrying out other programs of interest to its members.

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

1. Consultant will perform the Services as described by and in accordance with Exhibit A and other duties that may be requested from time to time by the BACWA Executive Board. Contractor retains the sole right to control and direct the manner in which it provides the services. Notwithstanding the foregoing, BACWA shall have a right to inspect the work, which shall include the right to stop the work if necessary to ensure that it conforms to BACWA's standards and expected results. This work will be performed to the satisfaction of the BACWA Executive Board.
2. Consultant shall not contract with or otherwise use any subconsultants, subcontractors or other non-employee persons or entities (Subconsultants) to perform the Services without the prior written approval of BACWA. If Consultant and BACWA agree that Subconsultants shall be used, Consultant shall ensure Subconsultants' compliance with all the terms and conditions of this agreement.
3. BACWA will pay Consultant a monthly flat rate of $15,833.00 for services rendered, for a maximum total of $79,165.00 for the remaining portion of the 2019-2020 Fiscal Year, (February 1, 2020 through June 30, 2020). Upon mutual agreement between BACWA and the Contractor, this Contract can be extended for 3 one-year terms starting July 1, 2020. With each extension BACWA agrees to increase the contract amount by the December year-over-year increase in the San Francisco Bay Area CPI.
4. No later than June 30 of each year the Executive Board shall evaluate performance under this Agreement and determine whether modification and/or renewal is appropriate.
5. BACWA agrees to reimburse Consultant for actual and reasonable expenses necessary to carry out the work described in Exhibit A. This includes, but is not limited to, travel expenses for BACWA-related meetings, and the cost of attending

trainings, conferences and other events necessary for the Consultant to act as the Executive Director.

6. Consultant shall submit invoices on a monthly basis. Payments under this Contract will be due thirty (30) days after BACWA's receipt of invoices. The invoices shall include a brief description (not to exceed three pages) of the activities and accomplishments of the previous period.
7. Consultant will maintain all 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.
8. All drawings, specifications, reports, programs, manuals, and other work product of Consultant that result from this Contract (Work Product) will be considered the exclusive property of BACWA. Consultant agrees that it will not use, disclose, communicate, publish or otherwise make available to third parties any products, analyses, data, compilations, studies, proposals, technical or business information, and any other information related to the Services provided to BACWA without BACWA's prior written approval.
9. The Consultant expressly agrees to indemnify, defend and hold BACWA, its officers, and directors, free and harmless from and against any and all loss, liability, expense, claims, costs, suits and damages, including attorney's fees, arising out of negligence of the Consultant's work and or performance under this Contract, excepting only such injury or damage as may be caused by the negligence of BACWA.
10. This contract shall automatically terminate on June 1, 2020. Either party may also terminate this Contract in whole or in part at any time for its convenience. For a termination for convenience, the termination will be effective thirty (30) days following receipt of a written notice of termination by one party from the other.
11. If this contract is terminated before June 30, 2020, the Consultant shall only be paid for services provided through the termination date. If the termination date is any date but the last day of the month, the Consultant shall receive payment for those days calculated on a daily pro rata basis.
12. This contract is non-exclusive. Consultant shall devote as much time, energy and ability to the performance of the Services hereunder as is necessary to perform them in a timely and productive manner. Consultant is free to perform services for his or her other clients outside the scope of this Agreement, provided such services do not create a conflict of interest with BACWA.
13. 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 and Exhibit B: Conflict of Interest Protocol.

CONSULTANT: Lorien Fono
1815 Delaware Street
Berkeley, CA 94703

_____
Tax Identification No.

_____ _____
Consultant Signature Date

_____
Name, Title

_____
BACWA Signature

_____
Name, Title

Amend 2 JDyment

AMENDMENT NO. 2
TO AGREEMENT BETWEEN
BAY AREA CLEAN WATER AGENCIES and
Jennifer Dyment
FOR
Assistant Executive Director Support

This Amendment No. 2 is made this 21st day of May 2021, in the City of Oakland and County of Alameda, State of California, to that certain agreement of February 21, 2020 (original agreement), by and between Jennifer Dyment and Bay Area Clean Water Agencies, (BACWA) (the "Agreement") in consideration of the covenants hereinafter set forth.

1. BACWA and Jennifer Dyment agree to a new contract amount of $108,800 for Assistant Executive Director Support for Fiscal Year 2021.

2. Hourly rate for FY22 is $68.00 per hour.

3. The new contract termination date will be June 30, 2022.

4. The Scope of Work has been updated for Fiscal Year 2022.

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

BAY AREA CLEAN WATER AGENCIES

May 21, 2021

By _____ Date _____

Amit Mutsuddy, Chair
BACWA Executive Board

By _____ Date _____

Jennifer Dyment

Exhibit A
BACWA ASSISTANT EXECUTIVE DIRECTOR
SCOPE OF SERVICES

CONSULTANT will act as the Assistant Executive Director and provide professional services as requested by the BACWA Executive Director (ED) to support BACWA and its Special Programs at a rate of $65.00/hour consistent with the following key activities:

1. Financial Management

- Communicate and coordinate with EBMUD Accounting to ensure proper and timely processing of contracts, invoices, dues and contributions to specific accounts and payments to BACWA vendors;

- On a monthly basis scan the EBMUD Treasurer's Report for consistency with BACWA's requests for payment of invoices and update the BACWA budget to actual revenue and expense spreadsheet;

- Coordinate with EBMUD Treasurer on the amount of reserves invested in longer term accounts to ensure that BACWA cash flow needs are met;

- Assist with annual budget development and management;

- Act as an intermediary between Project Managers and EBMUD Accounting to track revenues and expenditures for specific projects and Special Programs;

- Provide recommendations and support for revisions to accounting processes and financial reporting,

- Assist in developing contracting and fiscal policies for BACWA.

2. Meeting Support

- Attend monthly BACWA Board meetings and selected other meetings;

- Assist Executive Director in developing the Executive Board agenda and meeting packet; prepare and distribute meeting minutes;

- Work with the ED, Committee Chairs, consultants, and Project Managers on coordination, preparation, attendance, recordkeeping, meeting facilitation and follow up for special meetings, including but not limited to the following: Budget Planning Workshops, Pardee Technical Seminar, Annual Membership Meeting, Committee or BACWA-sponsored training and workshops.

- Assist with the coordination and facilitation of other meetings (e.g., Committee meetings) as requested by the ED.

3. Document Management

- Manage retention, organization, maintenance and storage of BACWA electronic and paper files;

- Maintain electronic records of policies, procedures, forms, and templates.

- Work with ED, Committee Chairs, and Project Managers to draft, edit, and execute contracts, amendments, contract scopes, and approval forms (e.g. Board Action Request (BAR)), Executive Director Authorizations, Chair Authorization, Travel Request), and other agreements;

- Compile background information or supporting documentation in response to requests from ED, Project Managers, and Committee Chairs;

- Act as BACWA's Filing Official and Filing Officer for Statements of Economic Interest as required by FPPC;

4. Communication and Website Management

- Manage the delivery of documents and information to members, including e-mail correspondence;

- Maintain BACWA contacts and distribution lists;

- Assist with the development of the BACWA Annual Report, including working with ED, Consultants, and Committee Chairs to compile content, edit draft, and oversee production and distribution;

- Assist with the delivery of selected communications to the RWQCB, including invitations to meetings, and formatting and submitting comment letters;

- Create, maintain and revise website content;

- Coordinate website revisions with consultants and Committee Chairs, including maintenance of the dynamic calendar and uploading of promotional materials;

- Provide content management system instructions for committees and others as needed;

- Manage BACWA private website user authorization;

- Assist ED with the development and implementation of communications plan, including website improvements and a newsletter;

- Respond to inquiries from the general public and members.

5. Miscellaneous

- Assist with other tasks and projects upon request from the ED
- <u>Act as Bay Area Chemical Consortium (BACC) Coordinator</u>

BAY AREA CLEAN WATER AGENCIES
PROFESSIONAL SERVICES CONTRACT
Assistant Executive Director

This PROFESSIONAL SERVICES CONTRACT, effective February 21, 2020, is between Bay Area Clean Water Agencies ("BACWA"), a joint powers agency which exists as a public entity separate and apart from its Member Agencies, created January 4, 1984 by a Joint Powers Agreement between Central Contra Costa Sanitary District, East Bay Dischargers Association, East Bay Municipal Utility District, the City and County of San Francisco and the City of San Jose, with a mailing address of P.O. Box 24055, MS 59, Oakland, CA 94623, and Jennifer Dyment ("Consultant"), an individual doing business at 829 Pomona Ave, Albany, CA, for professional services as described in any Exhibit A attached hereto.

The primary purpose of BACWA is to advocate for regulations that are based on sound science. BACWA often supports scientific investigations such as funding the collection of data on aquatic life and quality of waters in the San Francisco Bay system, interpretation of the data to assess the effects of pollution and other factors on the Bay, developing and disseminating information about the Bay, and carrying out other programs of interest to its members.

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

1. Consultant will perform the Services as described by and in accordance with Exhibit A in a manner acceptable to BACWA. Contractor retains the sole right to control and direct the manner in which it provides the services. Notwithstanding the foregoing, BACWA shall, have a right to inspect the work, which shall include the right to stop the work if necessary to ensure that it conforms to BACWA's standards and expected results.

2. Consultant shall not contract with or otherwise use any subconsultants, subcontractors or other non-employee persons or entities ("Subconsultants") to perform the Services without the prior written approval of BACWA. If Consultant and BACWA agree that Subconsultants shall be used, Consultant shall ensure Subsconsultants' compliance with all the terms and conditions of this agreement.

3. BACWA will pay Consultant for services at an hourly rate of $65.00, up to a maximum annual amount of $32,500 for the 2020 fiscal year. Consultant will not exceed the maximum amount payable without obtaining prior written approval from BACWA. Any future increases shall be implemented via an amendment to this contract.

4. BACWA agrees to reimburse Consultant for actual and reasonable expenses necessary to carry out the work described in Exhibit A. This includes, but is not limited to, travel expenses for BACWA-related meetings and events, and the cost of attending trainings necessary for the Consultant to act as the Assistant Executive Director. Travel to meetings, events and trainings outside of the San Francisco Bay and Sacramento Area must be approved by the Executive Director in advance.

5. Consultant shall submit invoices on a monthly basis. 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, back charges or claims incurred or anticipated by BACWA to the extent caused by Consultant.

6. Consultant will maintain all 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 to 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.

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

8. The Consultant expressly agrees to indemnify, defend and hold BACWA, its officers, and directors, free and harmless from and against any and all loss, liability, expense, claims, costs, suits and damages, including attorney's fees, arising out of negligence of the Consultant's work and or performance under this Contract, excepting only such injury or damage as may be caused by the negligence of BACWA.

9. This contract shall automatically terminate on June 30, 2020. Either party may also terminate this Contract in whole or in part at any time for its convenience. For a termination for convenience, the termination will be effective thirty (30) days following receipt of a written notice of termination by one party from the other.

10. This contract is non-exclusive. Contractor is free to perform services for his or her other clients outside the scope of this Agreement, provided such services do not create a conflict of interest with BACWA.

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 document is incorporated into and made a part of this Contract. Any conflicts between this document and this Contract will be resolved in favor of this Contract.

Exhibit A — Scope of Work

CONSULTANT: Jennifer Dyment

829 Pomona Ave
Street Address

Albany, CA 94706

City, State, Zip Code

Tax Identification No.

Consultant Signature

Date

Name, Title

Date: Feb 21, 2020

BACWA Signature

Lori Schectel, BACWA Executive Board Chair

Name, Title

Amend 1 MCousins

AMENDMENT NO. 1
TO AGREEMENT BETWEEN
BAY AREA CLEAN WATER AGENCIES and
Mary Cousins
FOR
Regulatory Program Management Support

This Amendment No. 1 is made this 21st day of May, 2021, in the City of Oakland and County of Alameda, State of California, to that certain agreement of August 21, 2020 (original agreement), by and between Mary Cousins and Bay Area Clean Water Agencies, (BACWA) (the "Agreement") in consideration of the covenants hereinafter set forth.

1. BACWA and Mary Cousins agree to a new contract amount of $127,400 for Regulatory Program Management Support for Fiscal Year 2022.

2. Hourly rate for FY22 is $98.00 per hour

3. The new contract termination date will be June 30, 2022.

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

BAY AREA CLEAN WATER AGENCIES

May 21, 2021

By _____ Date _____

Amit Mutsuddy, Chair
BACWA Executive Board

By _____ Date _____

Mary Cousins

File:

BAY AREA CLEAN WATER AGENCIES
PROFESSIONAL SERVICES CONTRACT
Regulatory Program Manager

This PROFESSIONAL SERVICES CONTRACT, effective August 21, 2020, is between Bay Area Clean Water Agencies ("BACWA"), a joint powers agency which exists as a public entity separate and apart from its Member Agencies, created January 4, 1984 by a Joint Powers Agreement between Central Contra Costa Sanitary District, East Bay Dischargers Association, East Bay Municipal Utility District, the City and County of San Francisco and the City of San Jose, with a mailing address of P.O. Box 24055, MS 59, Oakland, CA 94623, and Mary Cousins ("Consultant"), an individual doing business at 78 Sonia Street, Oakland, California, for professional services as described in any Exhibit A attached hereto.

The primary purpose of BACWA is to advocate for regulations that are based on sound science. BACWA often supports scientific investigations such as funding the collection of data on aquatic life and quality of waters in the San Francisco Bay system, interpretation of the data to assess the effects of pollution and other factors on the Bay, developing and disseminating information about the Bay, and carrying out other programs of interest to its members.

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

1. Consultant will perform the Services as described by and in accordance with Exhibit A in a manner acceptable to BACWA. Consultant retains the sole right to control and direct the manner in which it provides the services. Notwithstanding the foregoing, BACWA shall, have a right to inspect the work, which shall include the right to stop the work if necessary to ensure that it conforms to BACWA's standards and expected results.

2. Consultant shall not contract with or otherwise use any subconsultants, subcontractors or other non-employee persons or entities ("Subconsultants") to perform the Services without the prior written approval of BACWA. If Consultant and BACWA agree that Subconsultants shall be used, Consultant shall ensure Subsconsultants' compliance with all the terms and conditions of this agreement.

3. BACWA will pay Consultant for services at an hourly rate of $98.00 for a maximum of 1,000 hours in FY2021. Consultant will not exceed the maximum amount payable without obtaining prior written approval from BACWA. BACWA's Executive Director has discretion to increase the maximum amount payable in any fiscal year by a maximum of ten percent (10%). Any future increases shall be implemented via an amendment to this contract.

4. BACWA agrees to reimburse Consultant for actual and reasonable expenses necessary to carry out the work. This includes, but is not limited to, travel expenses for BACWA-related meetings and events, and the cost of attending trainings necessary for the Consultant to act as the Regulatory Program Manager. Travel to meetings, events and trainings outside of the San Francisco Bay and Sacramento Area must be approved by the Executive Director in advance.

5. Consultant shall submit invoices on a monthly basis. Payments under this Contract will be due thirty (30) days after BACWA's receipt of invoices. BACWA may withhold from any progress or final payment any damages, backcharges or claims incurred or anticipated by BACWA to the extent caused by Consultant.

6. Consultant will maintain all 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.

7. All drawings, specifications, reports, programs, manuals, and other work product of Consultant that result from this Contract ("Work Product") will be considered the exclusive property of BACWA. Consultant agrees that it will not use, disclose, communicate, publish or otherwise make available to third parties any products, analyses, data, compilations, studies, proposals, technical or business information, and any other information related to the Services provided to BACWA without BACWA's prior written approval.
8. The Consultant expressly agrees to indemnify, defend and hold BACWA, its officers, and directors, free and harmless from and against any and all loss, liability, expense, claims, costs, suits and damages, including attorney's fees, arising out of negligence of the Consultant's work and or performance under this Contract, excepting only such injury or damage as may be caused by the negligence of BACWA.
9. This contract shall automatically terminate on June 30, 2021. 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.
10. This contract is non-exclusive. Contractor is free to perform services for his or her other clients outside the scope of this Agreement, provided such services do not create a conflict of interest with BACWA.

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 document is incorporated into and made a part of this Contract. Any conflicts between this document and this Contract will be resolved in favor of this Contract.

Exhibit A – Scope of Work

CONSULTANT:

78 Sonia Street

Street Address

Oakland, CA 94618

City, State, Zip Code

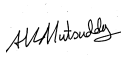
Tax Identification No.

Mary Cousins 08 / 24 / 2020

Consultant Signature *Date*

Mary Cousins, Regulatory Program Manager

Name, Title



08 / 24 / 2020

BACWA Signature *Date*

Amit Mutsuddy, BACWA Executive Board Chair

Name, Title

EXECUTIVE DIRECTOR AUTHORIZATION REQUEST

AGENDA.: 6

DATE: May 13, 2021

TITLE: Executive Director Authorization for a $1,500 Increase to the contract with Stephanie Hughes, ChE P.E for Fiscal Year 2021.

RECOMMENDED ACTION

Authorize Amendment #3 to the contract with Stephanie Hughes, ChE P.E. to provide professional training (mercury and copper), prepare comment letters, and provide policy support (pesticides, pharmaceuticals, etc.)., in an amount not to exceed $17,500 for Fiscal Year 2021 (FY21). This is an increase of $1,500 over Amendment #2.

SUMMARY

In FY 2021, the level of effort for engaging veterinary associations to provide education about flea-control alternatives exceeded the anticipated number of hours in BAPPG's budget. BAPPG leadership is requesting $1,500 in additional funding to communicate and coordinate with the American Veterinary Medical Association. This work is invaluable for crafting BAPPG's outreach messaging for pet spot flea treatments (fipronil and imidacloprid).

FISCAL IMPACT

This contract amendment would make use of the Miscellaneous Committee Support line item in the approved FY21 BACWA budget. This line item includes $45,000, none of which has yet been accessed for FY21.

ALTERNATIVES

Do not authorize the contract increase. This alternative is not recommended, as BAPPG leadership has recommended that this work be funded as a high priority in its pesticides advocacy efforts for FY21.

Attachments:

1. Amendment #3 to contract with Stephanie Hughes, ChE P.E

Approved: _____

Date: May 13, 2021

Lorien Fono
Executive Director, BACWA

Amend 3 Hughes

AMENDMENT NO. 3
TO AGREEMENT BETWEEN
BAY AREA CLEAN WATER AGENCIES and
Stephanie Hughes, ChE P.E. ,
FOR
BAPPG Support

This Amendment No. 3 is made this 13th day of May 2021, in the City of Oakland and County of Alameda, State of California, to that certain agreement of June 15, 2018 by and between Stephanie Hughes, ChE P.E. and Bay Area Clean Water Agencies, (BACWA) (the "Agreement") in consideration of the covenants hereinafter set forth.

1. BACWA and Stephanie Hughes, ChE P.E. agree to a new contract amount of $17,500.00 for BAPPG Support for Fiscal Year 2021.

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

BAY AREA CLEAN WATER AGENCIES

By _____ Date May 13, 2021
Lorien Fono, Executive Director

By _____ Date _____

Stephanie Hughes

EXECUTIVE DIRECTOR AUTHORIZATION REQUEST

AGENDA.: __7_____

DATE: May 13, 2021

TITLE: Executive Director Authorization for a $3,000 increase to the contract with SGA for Fiscal Year 2021.

RECOMMENDED ACTION

Authorize Amendment #2 to the contract with SGA. to provide professional training (mercury and copper), prepare comment letters, and provide policy support (pesticides, pharmaceuticals, etc.)., in an amount not to exceed $33,000 for Fiscal Year 2021 (FY21). This is an increase of $3,000 over Amendment #1.

SUMMARY

Many agencies are now grappling with how they should advise residents regarding the disposal of gel packs as they become a more frequent item for households to manage with their use in prepared food services. It appears that typical gel packs should be disposed of in the trash, to prevent drain clogging drain clogging, while the drain-safe product is unlikely to have an impact on either collection systems or wastewater treatment. The primary issue with respect to the cold packs appears to be that of possible clogging of drains due to their viscous nature.

BAPPG is requesting authorization of an increase in SGA's contract to create an information page on the BayWise website providing information on how to handle gel packs, using the information provided in the Memorandum noted above. This increase would be funded through BAPPG's Unplanned Expenses line item.

FISCAL IMPACT

This contract amendment would make use of the Unplanned Expenses line item within BAPPG's annual budget. BAPPG's total budget was approved as a line item in BACWA's FY21 Budget.

ALTERNATIVES

Do not authorize the contract increase. This alternative is not recommended, as BAPPG leadership has recommended that this work be funded as a high priority in its residential outreach program and is aimed at preventing sewer system blockages.

Attachments:

1. Amendment # 2 to SGA contract

Approved: Date: May 13, 2021

Lorien Fono
Executive Director, BACWA

Amend 2 SGA

AMENDMENT NO. 2
TO AGREEMENT BETWEEN
BAY AREA CLEAN WATER AGENCIES and
S. Groner Associates .
FOR
BAPPG Committee Support

This Amendment No. 2 is made this 13th day of May 2021, in the County of Alameda, State of California, to that certain agreement of July 19, 2019, between and Bay Area Clean Water Agencies, (BACWA) (the "Agreement") in consideration of the covenants hereinafter set forth.

1. BACWA and S. Groner Associates agree to a new contract amount of $33,000 for BAPPG Committee Support for Fiscal Year 2021.

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

BAY AREA CLEAN WATER AGENCIES

May 13, 2021

By _____ Date _____

Lorien Fono, Executive Director

By _____ Date _____

Stephen Groner, PE

S. Groner Associates

BACWA EXECUTIVE BOARD ACTION REQUEST

AGENDA NO.: _8 _
MEETING DATE: May 21, 2021

TITLE: BACWA Executive Board Authorization of Fiscal Year 2022 Amendments to IT and Legal Support Contracts

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

ACTION

Executive Board Authorization of amendments to contracts to implement the Fiscal Year 2022 BACWA/CBC Budget and Workplan.

SUMMARY

The BACWA Fiscal Year 2022 begins July 1, 2021. In order to prevent a gap in core services, BACWA typically executes contracts for the coming FY before the end of June. The amendments summarized below will ensure that, as of July 1, 2021 BACWA has Executive Board Legal Support, Regulatory Legal Support, and IT Support. All of these contract amendments were included in the BACWA FY 2022 workplan and budget and will become effective July 1, 2021. All contracts have a term of one year and will terminate on June 30, 2022.

Contractor	Services	Contract Amount
Day Carter Murphy	Executive Board Legal Support (as needed)	$2,264.00
Downey Brand	Regulatory Legal Support (as needed)	$2,815.00
Cayuga Information Systems	IT Support (as needed)	$2,652.00

FISCAL IMPACT

The funding for these contracts is consistent with the FY 2022 Workplan and Budget for BACWA/CBC.

ALTERNATIVES

No other alternatives were considered for these contracts as the terms of these agreements are consistent with BACWA contracting policies.

Attachments:
1. Day Carter Murphy Rate Email FY22
2. Downey Brand Rate Sheet FY22
3. Cayuga Information Systems Rate Email FY22

Approved:

Date: May 21, 2021

Amit Mutsuddy
Chair, BACWA Executive Board

From: Pineda, Patricia
To: Jennifer Dyment; Hidalgo, Robert
Subject: RE: FY22 Rate Sheet
Date: Friday, May 14, 2021 12:51:44 PM

Please see the below.

Our reference No. 33277.00002
M.Thorme - $400
N. Granquist - $400
Associates Capped at $395

Our reference No. 33277.00007
C.Ferrannini - $450
S.McElhern - $470

Patricia Pineda
Legal Secretary to Cassandra Ferrannini,
Dan McVeigh, Alex LaFountain, and Daria Gossett

Downey Brand LLP
621 Capitol Mall, 18th Floor
Sacramento, CA 95814
916.444.1000 Main
916.520.5255 Direct
916.520.5655 Fax
ppineda@downeybrand.com
www.downeybrand.com

From: Jennifer Dyment <jdyment@bacwa.org>
Sent: Thursday, May 13, 2021 1:33 PM
To: Hidalgo, Robert <rhidalgo@DowneyBrand.com>
Subject: RE: FY22 Rate Sheet

HI Rob

I just wanted to check in with you on this .. we were hoping to get the Downey Brand contract for FY22 approved at our board meeting next week.

Thank you!
Jennifer

From: Murray, Dee
Sent: Tuesday, May 11, 2021 9:53 AM
To: Jennifer Dyment ; Hidalgo, Robert
Subject: RE: FY22 Rate Sheet

HOURLY RATES/REIMBURSABLE EXPENSES
Day Carter Murphy Fiscal Year 2022

Ralph R. Nevis	$425.00 per hour
Joshua L. Baker	$425.00 per hour
Megan Sammut	$400.00 per hour
Reimbursable Expenses:	None

From: Larry Tubbs
To: Jennifer Dyment
Subject: RE: FY22 Cayuga"s rate sheet
Date: Thursday, May 13, 2021 1:41:36 PM

Jennifer,

Sorry about that, your email got buried in my exploding inbox.

Our hourly rate for BACWA FY22 will be $90/hour for both onsite and phone/remote support, travel within your service area on BACWA business is billed at 50% of that rate. This is unchanged from previous years, and are our standard small business and government terms.

Larry
925-324-1472 cell

From: Jennifer Dyment [mailto:jdyment@bacwa.org]
Sent: Thursday, May 13, 2021 1:33 PM
To: Larry Tubbs <larryt@cayugais.com>
Subject: RE: FY22 Cayuga's rate sheet

Hi Larry

I just wanted to check in with you on this .. we were hoping to get your contract for FY22 approved at our board meeting next week.

Thank you!
Jennifer

From: Jennifer Dyment
Sent: Tuesday, May 11, 2021 9:54 AM
To: larryt@cayugais.com
Cc: Lorien Fono (lfono@bacwa.org) <lfono@bacwa.org>
Subject: FY22 Cayuga's rate sheet

HI Larry

BACWA is planning to approve its FY21 as-needed support agreements at our May Board Meeting meeting. Could you send us Cayuga's FY22 Rate Sheet?

Thanks,
Lorien

BACWA EXECUTIVE BOARD ACTION REQUEST

AGENDA NO.: 9

MEETING DATE: May 21 2021

TITLE: Request for BACWA Executive Board Approval for Amendment #2 to the Agreement with Carollo Engineers for FY22 AIR Committee Support.

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

RECOMMENDED ACTION

Authorize Amendment #2 with Carollo Engineers to implement the Fiscal Year 2022 BACWA and Special Programs Budget and Workplan AIR Committee Support line item for a not to exceed amount of $75,000.

SUMMARY

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

FISCAL IMPACT

The funding for this contract is consistent with the Fiscal Year 2022 workplans and budget for BACWA and Special Programs.

ALTERNATIVES

Discontinue consultant support for BACWA's AIR committee. This alternative is not recommended, since member agencies have expressed the need for expert assistance on air issues that affect POTWs in the Region.

Attachments: FY 22 Carollo Engineers Amendment #2
Carollo Engineers, Inc. Scope of Work and FY22 Rates
FY20 Agreement with Carollo Engineers, Inc.

May 21, 2021

Approved: _____ Date: _____

Amit Mutsuddy Chair,
BACWA Executive Board

Amend 2 Carollo

AMENDMENT NO. 2
TO AGREEMENT BETWEEN
BAY AREA CLEAN WATER AGENCIES and
Carollo Engineers
FOR
AIR Committee Support

This Amendment No. 2 is made this 21st day of May 2021, in the City of Oakland and County of Alameda, State of California, to that certain agreement of June 21, 2019 by and between Carollo Engineers and Bay Area Clean Water Agencies, (BACWA) (the "Agreement") in consideration of the covenants hereinafter set forth.

1. BACWA and Carollo Engineers agree to a new contract amount of $75,000 for AIR Committee Support for Fiscal Year 2022.

2. BACWA and Carollo Engineers agree to a new period of July 1, 2021 — June 30, 2022.

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

BAY AREA CLEAN WATER AGENCIES

May 21, 2021

By _____ Date _____

Amit Mutsuddy, Chair
BACWA Executive Board

By _____ Date _____

Sarah A. Deslauriers
Carollo Engineers

EXHIBIT A

SCOPE OF WORK

Professional Services by Carollo

Task 1 - Quarterly Meetings with the AIR Committee
Under this task, it is assumed we will organize at least four formal meetings with the AIR Committee in each Fiscal Year. This includes coordination of meeting locations and preparation of agendas and meeting materials (e.g., handouts and presentation slides), and following each meeting with minutes. We will support AIR Committee meetings to present information on current air issues, facilitate discussions between members, and identify follow on action items. One of these meetings will be the annual BAAQMD-BACWA meeting to address issues of concern to AIR Committee members.

Task 2 - Track and Communicate Regulatory Issues, Technical Resources, and Grant Opportunities
This task is to allow for continued monitoring of regulatory agencies involved in developing air quality and climate change regulations that may affect Bay Area WWTPs, including but not limited to the BAAQMD, the San Francisco BCDC, the California Air Resources Board, and the U.S. Environmental Protection Agency. We will also track related and relevant technical resources and grant opportunities of interest to BACWA AIR member agencies. This task also includes preparation and distribution of informational material via e-mail to members to keep them informed of regulatory activities, and AIR Committee activities, between meetings.

Task 3 - Coordination and Communication with other WWTP Organizations and Regulators
When directed by the AIR Committee Chairs, we will participate in meetings with regulators (including BAAQMD leaders at least two times per year), participate in member or regulator workshops and hearings, draft correspondence for AIR Committee member review and approval prior to submission, and perform other related activities. We will also coordinate with other WWTP organizations on issues of common interest. The purpose of this coordination is to share/exchange useful information, identify areas of joint interest, and prepare consistent or complementary responses on key issues, where appropriate. WWTP organizations whose objectives/interests coincide with the AIR Committee include SCAP, CVCWA, CASA, WERF, and NACWA. Activities may include conference calls, meetings, and exchange of published information.

Task 4 - Response on Special Assignments (Optional or As Needed)
This task includes performing special technical assignments under the direction of the AIR Committee Chairs (i.e., as needed). Special technical assignments may include coordinating a specialty workshop for the AIR Committee or general BACWA members (e.g., Regulation 2 amendments and implementation of Rule 11-18), participating in AIR Committee strategy meetings, or performing other activities not included in Tasks 1-3.

EXHIBIT B

HOURLY RATES/REIMBURSABLE EXPENSES

Sarah Deslauriers	$225
Courtney Mizutani	$215

BAY AREA CLEAN WATER AGENCIES
PROFESSIONAL SERVICES CONTRACT

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

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

Description and Standard of Services to be Performed

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

Payment for Services

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

Document Ownership and Retention

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

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

Indemnification

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

Insurance

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

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

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

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

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

Assignment

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

Independent Contractor

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

Termination of Contract; Suspension of Services

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

Dispute Resolution

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

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

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

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

Severability

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

Survival

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

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

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

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

CONSULTANT: **CAROLLO ENGINEERS, INC.**

2700 Ygnacio Valley Road, Suite 300
Street Address

Walnut Creek, CA 94598
City, State, Zip Code

86-0899222
Tax Identification No.

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

Lydia Holmes, Vice President
Name, Title

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

BACWA Signature *Date*

Lori Schectel, BACWA Chair
Name, Title

BACWA EXECUTIVE BOARD ACTION REQUEST

AGENDA NO.: 10

MEETING DATE: May 21, 2021

TITLE: Request for BACWA Executive Board Approval for Amendment #4 to the Agreement with Stephanie Hughes, ChE P.E. for BAPPG Support

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

RECOMMENDED ACTION

Authorize Amendment #4 to the contract with Stephanie Hughes to provide professional training, prepare comment letters, and provide policy support in an amount not to exceed $16,000.00 for FY22.

SUMMARY

In 2018, BACWA and BAPPG underwent a competitive process to select a consultant to provide professional outreach and support. At the June 15, 2018 Executive Board Meeting, the BACWA Executive Board approved a contract with Stephanie Hughes for BAPPG support. The contract allows for up to four one-year extensions. This will be the third year of five possible contract years. This agreement will provide support for: (1) training to professional groups (veterinarians, dental hygienists/assistants, plumbers, etc.) on mercury, pesticides and other relevant pollutants of concern to BACWA agencies; (2) Policy Support and Comment Letters; (3) Communications support for BAPPG.

FISCAL IMPACT

The funding for this contract is consistent with the Fiscal Year 2022 workplans and budget for BACWA and Special Programs.

ALTERNATIVES

1. Discontinue consultant support. This alternative is not recommended since this work was included in BAPPG's approved FY21 budget and will assist BACWA with executing pollution prevention outreach to professional groups.
2. Select another consultant to conduct the work. This alternative is not recommended since BACWA conducted a competitive process which resulted in Stephanie Hughes being selected as the most qualified technical consultant.

Attachments: FY22 Contract Amendment #4
FY22 Scope of Work and Rates
FY19 Agreement with TDC Environmental, Inc.

Approved: _____ Date: May 21, 2021
Amit Mutsuddy, Chair,
BACWA Executive Board

AMENDMENT NO. 4
TO AGREEMENT BETWEEN
BAY AREA CLEAN WATER AGENCIES and
Stephanie Hughes, ChE P.E.
FOR
BAPPG Support

This Amendment No. 4 is made this 21st day of May 2021, in the City of Oakland and County of Alameda, State of California, to that certain agreement of June 15, 2018 by and between Stephanie Hughes, ChE P.E. and Bay Area Clean Water Agencies, (BACWA) (the "Agreement") in consideration of the covenants hereinafter set forth.

1. BACWA and Stephanie Hughes, ChE P.E. agree to a new contract amount of $16,000.00 for BAPPG Support for Fiscal Year 2022.

2. BACWA and Stephanie Hughes, ChE P.E. agree to a new period of July 1, 2021 — June 30, 2022.

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

BAY AREA CLEAN WATER AGENCIES

By _____ Date May 21, 2021
Amit Mutsuddy, Chair, Executive Board

By _____ Date _____
Stephanie Hughes

STEPHANIE HUGHES, ChE P.E.
Consulting Engineer / University Lecturer
1445 Emory Street, San Jose, California 95126

BAPPG: Professional Training and Policy/Regulatory Support

Scope of Work and Cost Estimate for 2021-22

DATE: 12-May-2021

SCOPE OF WORK DESCRIPTION	BUDGET		TOTAL
	Rate: $199.00 **ODC**	**Hour Est**	
TASK 1. Professional training: Conduct trainings to community colleges and professional associations - either in-person or via zoom. The foci are expected to be (1) dental mercury and other dental office wastes, and (2) non-toxic flea and tick control. Consultant also has prior BAPPG experience providing trainings regarding pharmaceutical disposal, hazardous material identification during building demolition, and copper plumbing BMPs. As part of this effort, consultant shall update contact database, communicate with contacts, and seek speaking engagements. Edit/update presentations as warranted per new regulatory context. ***This scope assumes up to a total of 8 presentations.***	$279	18	$3,861.00
Task 2. Outreach and Regulatory Support: Consultant will: * Update flea/tick alternatives to expand upon physical tick controls per the recommendation of AVMA Committee on Environmental Issues (CEI). Continue to track peer-reviewed research and insights about flea/tick alternative controls. Update flea/tick pesticide database to include new (or in-development) flea/tick pesticides and insights. Update Baywise website as warranted. * Continue educating AVMA CEI and building relationships between BACWA, AVMA, and NACWA in prep for October 2021 Chicago meeting. Support communication between DPR and AVMA re fipronil alternatives. * Be on-call to conduct literature reviews or provide other technical support. Topics could include but are not limited to metals, nutrients, salinity, and emerging constituents. * ***This scope assumes 7 hrs/month in summer (due to AVMA fall goal); 4 hrs/month rest of year.***		57	$11,343.00
Task 3. Communications. Prepare relevant outreach sections to the BAPPG Annual Reports to be submitted to the BACWA Board of Directors. Speak at one BAPPG meeting to provide significant updates of a technical nature.		4	$796.00
Totals	**$279**	**79**	**$16,000.00**

www.stephaniehughes.net

THANK YOU FOR YOUR BUSINESS!

19-09 Date: 6/15/18

BAY AREA CLEAN WATER AGENCIES

CONSULTING AGREEMENT

TO:	Stephanie Hughes, ChE P.E. 1445 Emory Street San Jose, CA 95126	steifehughes@yahoo.com (408) 499-9271
FROM:	David Williams, Executive Director BACWA PO Box 24055, MS702 Oakland, CA 94623	dwilliams@bacwa.org Phone: 925-765-9616 FAX: (510) 287-1351

RE: BACWA Agreement for FY19 with Stephanie Hughes, ChE P.E. to provide professional training (mercury and copper), prepare comment letters, and provide policy support (pesticides, pharmaceuticals, etc.).

This Agreement covers professional services to be performed by Stephanie Hughes, ChE P.E. in order to provide support for: (1) training to professional groups (dental hygienists/assistants, plumbers, etc.) on mercury, copper and other relevant pollutants of concern to BACWA agencies; (2) preparing comment letters; (3) evaluating regulatory documents; (4) performing research related to controlling pollutants at their source; (5) continuing outreach to Veterinary Medical Associations and the general public related to pet spot-on flea treatments; and (6) providing policy support on pesticides, pharmaceuticals, and other pollutants of emerging concern. These efforts will be carried out under the supervision of Autumn Cleave of the San Francisco Public Utilities Commission. The total cost of professional services to be performed by Stephanie Hughes, ChE P.E. is not to exceed $16,000. This contract will be funded by the BACWA Budget under the BAPPG Committee line item.

This agreement may be extended for up to four additional one-year terms upon approval of the BACWA Executive Board and an amendment to this agreement.

This Agreement may be terminated by either party at any time for convenience with 30-day notice. In the event of termination by BACWA, BACWA shall pay Stephanie Hughes, ChE P.E. for professional and competent services rendered to the date of termination upon delivery of assigned work products to BACWA.

Stephanie Hughes, ChE P.E. shall submit invoices to the BACWA Assistant Executive Director via e-mail along with approval by BAPPG. Invoices shall indicate hours associated with each task. Invoices will be paid within thirty (30) days of receipt.

BACWA AED E-mail: Sherry Hull shulll@bacwa.org

Approved:

By _____
Lori Schectel
Chair, BACWA Executive Board

Date: June 15, 2018

By _____
Stephanie Hughes, ChE P.E.

Date: June 15, 2018

BACWA EIN: 94-3389334

BACWA EXECUTIVE BOARD ACTION REQUEST

AGENDA NO.: 11__

MEETING DATE: May 21, 2021

TITLE: Reimburse the City of Livermore in $26,558.78 for overpayments, FY18 through FY21

☐RECEIPT ☐DISCUSSION ☐RESOLUTION ☒APPROVAL

RECOMMENDED ACTION

Authorize the reimbursement of the City of Livermore the difference between associate and affiliate BACWA member dues from Fiscal Year 2018 through Fiscal Year 2021.

SUMMARY

In December 2016, BACWA adopted its classes of membership policy which established the 10 mgd threshold that differentiates affiliate and associate members. It became effective beginning in the 2018 Fiscal Year invoicing period.

In April 2021, staff from the City of Livermore contacted BACWA and noted that they have been charged as associate members, although their rated flow is 8.5 mgd. BACWA staff investigated the history of our billing practices and concluded that the City of Livermore has been overcharged. It is requested that the BACWA Executive Board authorize reimbursement to the City of Livermore for the difference between associate and affiliate membership dues from FY18 through FY21. The overpayment for each fiscal year is in the table below, and the total reimbursement would be $26,558.78.

	Affil /paid	Assoc	Difference
FY 2018	$8,090.00	$1,600.00	$6,490.00
FY 2019	$8,200.00	$1,643.00	$6,557.00
FY 2020	$8,364.00	$1,675.00	$6,689.00
FY 2021	$8,531.28	$1,708.50	$6,822.78
Total Owed			**$26,558.78**

FISCAL IMPACT

The reimbursement will be billed as an unplanned expense against BACWA's Approved FY21 budget.

ALTERNATIVES

1. No alternatives are considered for this action, as Livermore has been overcharged membership dues due to BACWA's error.

***Attachments*:**

1. BACWA Classes of membership policy BP001, approved 12-18-2016

Approved: _____ **Date:** May 21, 2021

Amit Mutsuddy, Chair

BACWA BOARD POLICIES

POLICY NUMBER: BP-001

NAME OF POLICY: Dues and Fees Associated with Classes of Membership

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DATE APPROVED: 12-18-2016

LAST REVISED: 12-18-16

PURPOSE: In accordance with the BACWA JPA define the various classes of members.

POLICY: BACWA supports the establishment of differing classes of members each having their own dues and/or fee structure.

DEFINITIONS:

Dues: Dues cover an agency's membership in BACWA and support the operation of BACWA. Dues are not a function of the number of wastewater plants and agency owns and operates. EDBA is a special situation where its dues cover multiple POTWs that are members of the EBDA JPA in accordance with the BACWA JPA.

CBC Fee: All members are charged a CBC Fee which provides BACWA the resources to conduct special investigations and advocacy efforts on behalf of its members on a variety of issues including biosolids, water quality, permitting, pretreatment, O&M, collection systems.

Nutrient Surcharge: The Nutrient Surcharge is a special assessment use to supplement the CBC Fee financial resources and was specifically developed to meet the significant financial obligations of the Nutrient Watershed Permit. This fee is assessed to only those members who are listed in the Nutrient Watershed Permit. It will be continued until all obligations under the Permit are met.

Principals: The five BACWA Principals are comprised on the five original signers of the BACWA JPA. The Principals have the largest flows and loadings and thus bear the burden of the majority of BACWA's operating costs. All Principals pay the same dues, CBC fees and Nutrient Surcharge.

Associates: Associates Members of BACWA are those members whose POTW design flows are greater than or equal to 10 million gallons per day (mgd). Being larger POTWs their dues and fees are slightly higher that Affiliate Members. All Associate dues are the same, however since the CBC and Nutrient Surcharge are based on loadings, these charges can vary among different Associate members.

Affiliates: Affiliate Members are the smaller to medium size POTWs with design flows less than 10 mgd. Affiliates have the lowest dues structure. Like Associates, since the CBC and Nutrient Surcharge are based on loadings, these charges can vary among different Affiliates. Members who operate collection systems and not a POTW are placed in the Affiliate class of membership and pay fixed dues and a fixed CBC Fee, but since they do not operate a POTW they are not assess the Nutrient Surcharge.

Non-BACWA Members: BACWA membership is open to all POTWs and public collection systems entities within the jurisdiction of the San Francisco Bay Regional Water Quality Control Board (Water Board). This area generally covers the nine Bay Area counties, but is defined by the watershed tributary to San Francisco Bay within those nine counties. Public entities outside of the Water Board's jurisdiction may have an interest in joining one or more of the BACWA committees or initiatives. Recognizing that these entities may not have the same regulatory issues as the regular BACWA membership, these entities may be allowed to join a BACWA committee or initiative based on a case-by-case review by the BACWA Board and provided their interests are aligned with that of the general BACWA membership. Financial participation for any non-BACW member would be established on a case-by-case basis by the BACWA Board.

APPLICABILITY: This Policy applies to all BACWA Members

PRELIMINARY AGENDA
BACWA Nutrient Strategy Team Meetings
May 24, 2021, 3-5pm

1. Introductions

2. Review preliminary results from HDR data analysis

3. Review Key Tenets v 0.1

4. Discuss steps for investigating nutrient crediting or trading

5. Reach consensus or identify informational needs on following:
    a) How to incentivize early actors?
    b) How to incentivize multi-benefit projects?
    c) How to calculate compliance for agencies with cogeneration projects?

6. Action items/Next steps

7. Adjourn

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

date: May 4, 2021, 9:00 AM to 1:00 PM

location: Teleconference only

https://us02web.zoom.us/j/2579831092

call-in: (669) 900-9128 or (253) 215-8782

Meeting ID: 257 983 1092

AGENDA

	Agenda Item	Lead	Time
1	**Welcome, Introductions and Agenda Review**		9:00-9:05
2	**Overview: NMS Science Priorities and Potential FY2022 Work** • Provide NTW with an overview of NMS Priorities, and the considerations shaping FY2022 priority work *Materials*: See meeting materials	DS	9:05-9:25
3	**Monitoring: Sustainable, Robust Program** • Summarize and gather NTW feedback on proposed FY2022 monitoring work *Materials*: See meeting materials	DS	9:25-10:00
3	**Addressing Key Knowledge/Data Gaps: Mechanistic Field Studies** • Summarize and gather NTW feedback on proposed FY2022 field studies *Materials*: See meeting materials	DR/AC	10:00-10:50
	Break		10:50-11:00
4	**Numerical Model Development and Applications** • Summarize and gather NTW feedback on proposed FY2022 modeling work	DS	11:00-11:50
5	**Discussion and Capture Feedback** • Discuss NMS science priorities, looking across focus areas and program areas • Capture NTW feedback •	SFEI team	11:50-12:50
	Wrap-up and Adjourn		12:50-1:00

UNCERTAINTY IN NUMERICAL MODEL APPLICATIONS TO MANAGE COASTAL EUTROPHICATION

Spring 2021 Webinar Series and Workshop

Webinar Series and Workshop Goals

The goals of this virtual webinar series and workshop are to:

#1 Educate managers on basic approaches to estimating uncertainty in numerical model applications to investigate coastal eutrophication.

#2 Discuss the relevance of these approaches for ongoing investigations of effects of land-based nutrients in the San Francisco Bay estuary and the southern California Current System.

Who Should Attend? How to Sign Up?

Who Should Attend: Scientists, staff of California sanitary agencies, stormwater agencies, water quality regulatory and natural resource agencies.

To sign up for our listserv and get updates, click here.

To review background materials, click here.

Why Uncertainty? Two separate efforts are independently using coupled physical and biogeochemical numerical models to quantify the effect of land-based nutrients on eutrophication in the San Francisco Bay (San Francisco Nutrient Management Strategy) and on the California Coast (Ocean Protection Council Coastal Ocean Acidification and Hypoxia (OAH) Modeling). The outcomes of these modelling research programs could drive important management decisions on nutrient management to the tune of billions of dollars. For managers and policy makers to confidently use the results of the model, the model uncertainty would ideally be smaller than the change the model is predicting is attributable to anthropogenic nutrients. Managers are seeking information on approaches to take these uncertainty analyses to the next level and their efficacy in how models are used to support management conversations.

Half Day Virtual Workshop and Panel Discussion

Friday, May 28, 8:15 AM - noon PDT

Click here to register as an attendee now

(Invited participants and panelists do not need to register)

The virtual workshop will consist of a panel of scientists, modelers and agency staff that discuss the key benefits and limitations of uncertainty approaches for the two California coastal modeling research programs. Selected panelists will give short, summary talks and the facilitator will engage the group in discussion on questions related to the workshop theme and from the audience. The ultimate goal is to educate workshop attendees on what uncertainty approaches are relevant and how they could be specifically used to inform the key management questions.

Completed Webinars

Marjorie Friedrichs, Ph.D.
Professor, Virginia Institute of Marine Science (VIMS)
When: Thu. Apr 15
12pm-2pm PDT
Link to Slides and Recording

Dr. Friedrichs uses mathematical computer models and observations to quantify the impacts of climate, land-use changes and local management efforts on hypoxia, acidification, and biogeochemistry in coastal systems. Go here for more on her research.

Talk Title: Quantifying and communicating model uncertainty: a Chesapeake Bay case study

Christopher Edwards, Ph.D.
Professor, University of California, Santa Cruz
When: Wed. Apr 21
12pm-2pm PDT
Link to Slides and Recording

Dr. Edwards conducts research in physical oceanography and ocean ecosystem dynamics, and geophysical fluid dynamics using numerical modeling and ocean observing systems. Go here for more on his research.

Talk Title: Uncertainty in coastal ocean biological and physical modeling

Samantha Siedlecki, Ph.D.
Professor, University of Connecticut
When: Wed. Apr 28
12pm-2pm PDT
Link to Slides and Recording

Dr. Siedlecki is a biogeochemical oceanographer who uses numerical models to understand mechanism and influences on biogeochemical dynamics in coastal ocean ecosystems. Go here for more information on her research.

Talk Title: Forecasting the future of ocean acidification and hypoxic conditions in the Northern California Current system

John Dunne, Ph.D.
Oceanographer,
NOAA Geophysical Fluid Dynamics Lab, Princeton, NJ
When: Wed. May 05
12pm-2pm PDT
Link to Slides and Recording

Dr. Dunne is an expert in ocean biogeochemistry, climate, and earth system modeling with 30 years of experience developing instruments, collecting field observations, and performing analysis and modeling studies. Go here for more information.

Talk Title: Uncertainties in global projection of biogeochemical change on the US West Coast

Questions?

Contact us at uncertaintyinfo@sccwrp.org

Workshop Organizing Team

Allie King, Farid Karimpour, David Senn, San Francisco Estuary Institute
Minna Ho, Faycal Kessouri, Martha Sutula, Southern California Coastal Water Research Project
Phil Markle, LA County Sanitation District
Ami Latker, City of San Diego
Lorien Fono, Bay Area Clean Water Agencies

Assessment Framework Update, Deep Subtidal

	Project	Product	Timing
1	Trends: detection/quantification method development	-- report -- manuscript	✓ -- Mar 2021 ✓ -- Apr 2021
2	Trends: web-tool -- chl-a, GPP, DO (surface, mg/L) -- DO%sat (depth-average) -- SPM, other	-- web-tool	✓ -- Sep 2020 ☐ -- *Apr/May 2021* -- *May/Jun 2021*
3	AF2.0 Planning: regulator/stakeholder input, work plan	-- report	☐ -- *Apr 30*
4	AF1.0 'Test-Drive'	-- report	☐ -- *Apr 30*
5	Trends synthesis: -- chl-a, GPP, and DO over space/time -- causal factors	-- report #1 (eventual manuscript) -- report #2 (eventual manuscript)	☐ -- *May/Jun 2021* -- *Fall 2021 (cont'd in fy2022)*
6	HABs: molecular techniques, improved sensitivity /accuracy, characterizing occurrence/abundance of new HABs, recommended HAB monitoring approach	-- report #1 -- report #2 -- report #3	✓ -- Sep 2020 -- *Apr/May 2021* -- *Mar 2022*
7	Expert Advisory Group: deep subtidal Work Plan, approaches for next round of Deep Subtidal analysis, uncertainty, etc.	-- expert group, report out	☐ -- *Aug/Sep 2021*
8	Data-report/synthesis: assembling new data to inform priorities/planning for Deep Subtidal AF (Work Plan)	-- report	-- *Aug/Sep 2021*
9	HAB synthesis: HA occurrence/abundance, toxins, space-time variability	-- report #1 -- report #2	-- *Jul/Aug 2021* -- *Spring 2022*

Planning Subcommittee Meeting No. 56
April 23, 2021
1:00 pm – 4:00 pm
Teleconference
Chair: Tom Mumley
Meeting Notes

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

1. *Agenda Modifications (All) 5 min*
   None

2. *Review Outstanding Action items (LF) 5 min*

   - Ian to develop revised Blueprint Actions for off-line review and finalization at the April PS meeting. Share via Google docs for version control - complete
   - Ian to send out a doodle for the April/May NTW meeting - complete
   - SFEI to develop multi-year mechanistic dose-response workplan along with proposed budgets - ongoing
   - SFEI staff will work with the Water Board to identify potential slough sensor sites - ongoing

3. Other Updates

Science program update
Staffing – Lisa Hunt has started in the program management role. Other two new staff are making plans to relocate to the Bay Area.

Modeling team recently completed a major Delta Suisun Modeling deliverable, and is now turning its attention back to SF Bay work. This work will have benefits for the SF Bay model as well, both for Suisun Bay, plus general modeling calibration.

The mooring work is ongoing, and 3 mooring stations along the shoal are operating well. The data are showing different conditions than in the deep subtidal channels. One of the surface-visible field sensors has been lost from a shoal site. The surface-visible sensors are easier to maintain compared to bottom sensors, which is why they are favored even though they are more at risk to theft or vandalism. A dive team will go out next week to look for it. There was a discussion about tracking technology to prevent future losses.

Dave gave an update on ship-based sampling. The Water Science Center is now officially managing the project, and has access to the RV Peterson vessel any time it is not engaged in a standard cruise, as long as they pay for fuel. Two interns could be funded to assist this project this summer. There was a discussion about whether the vessel could be made available to the RMP for their sampling program.

Dave discussed setting up a PSC google folder to share agendas and minutes.

Funding request for LSB modeling work - Dave asked for authorization to fund two interns at $5K each to conduct field sampling in the Lower South Bay this Summer. The Committee approved the request.

4. *Priority Updates*

Other Report-Outs – There was a discussion about a SOW to have HDR look at historic data variability. The Water Board has been considering different subembayment scenarios. BACWA will share the SOW with the Water Board. Tom reiterated some WSP 3.0 concepts. BACWA and the Water Board will stay in touch regarding their parallel efforts.

NMS Calendar Review – The group agreed to push out the next PSC meeting to May 18 to plan for the June Steering committee meeting.

5. *Other Updates*

Modeling reports/Uncertainty workshop series – Dave gave an update on progress on the webinar series. BACWA is supporting Mike Connor to represent the POTW perspective. There was a discussion about how the ways of measuring and communicating uncertainty could be applied in the Bay Area, and how much it matters for implementing a load cap approach.

Estuary Blueprint – proposed tasks for Action #28 – Ian shared a Google doc prior to the meeting and walked through his proposed actions, and progress towards completing previously identified actions. There was a discussion that this should include nutrient science needs that are outside of the funding available from the BACWA agencies. There was a discussion that there should be a document the sums up the planning and permitting status with respect to nutrients. Dave noticed that this would be a worthwhile effort even outside of the needs of the blueprint. The NMS website is out of date and needs updating. BACWA would like to move this forward to facilitate communication with its members, and is willing to put resources into updating it. The group will review the google doc and get Ian comments within the next two weeks.

Nutrients Watershed Permit #2 decisions – Need to develop an explicit list of needs for LSB prior to the adoption of the next WSP. Then extrapolate this thinking to other targets and pathways. SFEI will put together a summary of what they thought they heard and get consensus at our May 18 meeting on a set of goals. This will be similar to the program plan from 2019, but updated with more recent information. Dave stressed that we need to come to an agreement about whether studies that don't get done during this permit term can be conducted in a future permit term at a reduced funding level. Tom stressed that we'd need to consider what would be critical after that point.

6. *Planning the NTW/Steering Committee meeting*

Dave has been working with the modeling team on the program plan update. They will set up a time to talk with Water Board staff about monitoring proposals. Materials for the NTW meeting will be sent out by April 29, which will include alternatives proposals based on

feedback from PSC members that had been articulated at previous meetings. Based on feedback from the NTW, Lisa will make a proposal for the program plan for the PSC to review at the May 18 meeting.

7. *Action items:*

- (ongoing) SFEI to Develop multi-year mechanistic dose-response workplan along with proposed budgets.
- (ongoing) SFEI staff will work with the Water Board to identify potential slough sensor sites.
- SFEI and Ian to develop recap of decisions about LSB science needs
- Members to collaborate on development of NMS status document/fact sheet that pulls together planning, permitting, and science.
- Tom and Lorien to review proposed Estuary Blueprint actions and comments by May 7.

8. Adjourn or address Parking Lot items

Parking Lot of Identified PS Future Agenda Items

a. Modeling
b. Outreach to resource agencies re: DO objectives
c. Brainstorming on future priorities for the PS (ALL)
d. EPA nutrient criteria discussion
e. Discuss concept of holding an annual forum on nutrients
f. Finish

Proposed Evolution of the 2016 Alternate Monitoring & Reporting Program to Add Support to the Regional Monitoring Program

Bay Area Clean Water Agencies

May 2021 DRAFT

BACWA
BAY AREA
CLEAN WATER
AGENCIES

Contents

Figures

Tables

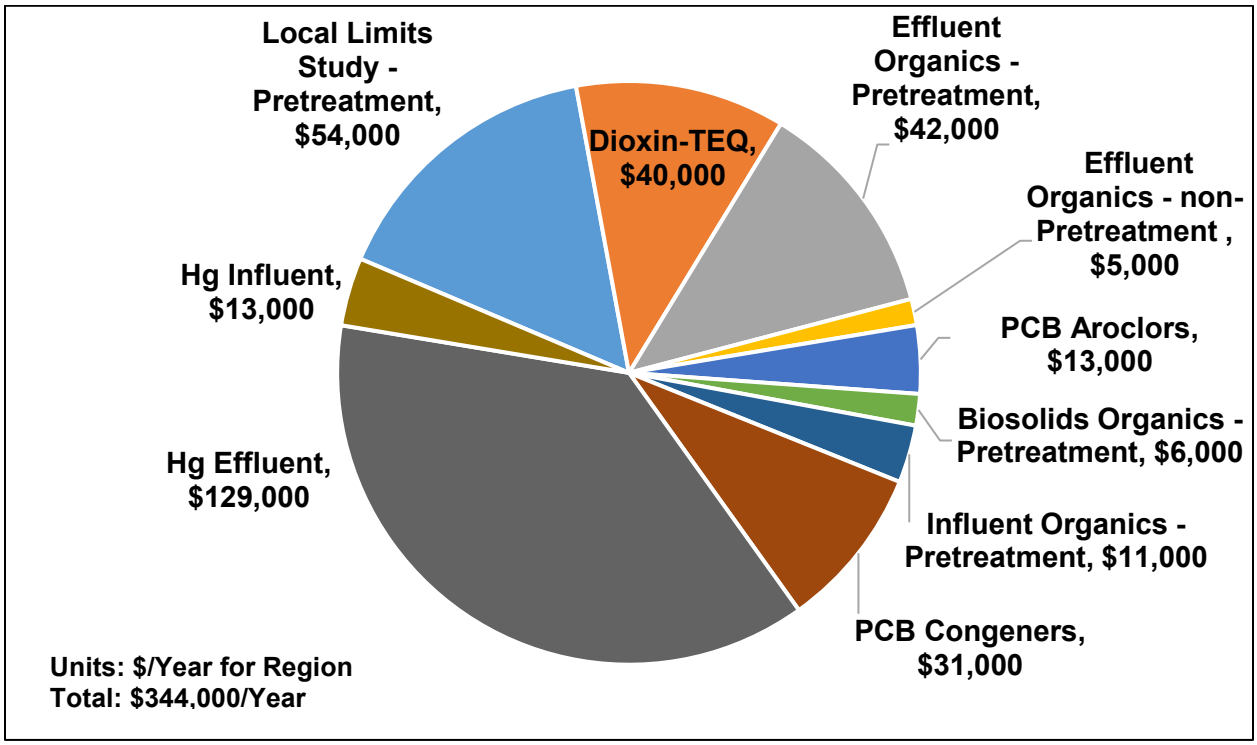
Acronyms

BACWA	Bay Area Clean Water Agencies
BNAs	Base, Neutral, and Acid-Extractable Organics
CEC	Constituents of Emerging Concern
CIWQS	California Integrated Water Quality System
EPA	Environmental Protection Agency
MGD	Million Gallons per Day
NPDES	National Pollutant Discharge Elimination System
PCBs	Polychlorinated biphenyls
PFAS	Per- and polyfluoroalkyl substances
POTW	Publicly-Owned Treatment Works
RMP	Regional Monitoring Program
R2	Region 2 of the California Regional Water Quality Control Boards
SFEI	San Francisco Estuary Institute
TEQ	Toxic equivalency
TMDL	Total Maximum Daily Load
VOCs	Volatile Organic Compounds

Executive Summary

The San Francisco Bay Regional Water Quality Control Board's 2016 Order *Alternate Monitoring and Reporting Requirements for Municipal Wastewater Dischargers for the Purpose of Adding Support to the San Francisco Bay Regional Monitoring Program* (RMP) successfully raised $1.3M over a 5-year period to support the RMP. However, one of the key aspects of the 2016 Order – a waiver of the requirement to conduct chronic toxicity species sensitivity screening studies – is expected to sunset later in 2021 when it is superseded by new statewide toxicity provisions. BACWA proposes to replace the 2016 Order with a new set of monitoring reductions to provide a similar level of support for RMP monitoring of Constituents of Emerging Concern (CECs). Estimated cost savings from the proposed monitoring reductions are shown below in **Figure ES-1.**

Figure ES-1: Proposed Monitoring Reductions to Add Support to RMP CEC Monitoring



This report provides :

1. Background information about implementation of the 2016 Order;
2. Rationale for continuing most elements of the 2016 Order, with the exception of the chronic toxicity species sensitivity screening; and
3. Specific proposals for new monitoring and reporting reductions to be implemented along with the remnants of the 2016 Order in a new blanket permit amendment.

1. Background

1.1 The Regional Monitoring Program

The Regional Monitoring Program for Water Quality in San Francisco (RMP) was established in 1993 as a collaborative effort between the San Francisco Bay Regional Water Quality Control Board, the San Francisco Estuary Institute (SFEI), and the regulated discharger community (municipal wastewater dischargers, industrial dischargers, stormwater, dredgers, etc.). The guiding principal of the RMP is to collect data and communicate information about water quality in the San Francisco Estuary in support of management decisions to restore and protect beneficial uses of the region's waters.

Bay Area Clean Water Agencies (BACWA) members discharging into the San Francisco Estuary or one of its tributaries ("**Dischargers**" in this report) are required by their individual NPDES permits to participate in the RMP by paying an annual fee. The fee is set annually in accordance with a budget allocation approved by the Regional Water Board's Executive Officer. Fees apply on a calendar year basis; agencies are invoiced several months ahead of the calendar year.

1.2 The 2016 Alternative Monitoring & Reporting Program

Historically, SFEI and others have identified more water quality issues meriting study than the Regional Water Board's cost allocations can support. In 2016, BACWA worked with Regional Water Board staff and SFEI staff to propose reduced monitoring frequencies for certain water quality parameters so that 100 percent of the cost savings from the reductions could be directed to supplement additional RMP studies. The effort was meant to correct an imbalance in the high cost of monitoring for certain pollutants that were rarely detected (such as chronic toxicity and priority pollutants), while not enough funding was available to study water quality constituents of emerging concern (CECs).

Studying CECs is a core activity of the RMP; one of the RMP's six workgroups is devoted entirely to emerging contaminants, while others focus on the fate and transport of emerging contaminant that reach the Bay. The RMP has developed an emerging contaminants strategy that guides decisions on monitoring and management. Early identification of problem pollutants and quick action to prevent potential impacts is an optimal and cost-effective strategy for protecting water quality. This is especially true in an ecosystem like the Bay, which can act as a long-term trap for persistent contaminants, with recovery taking decades or centuries when contamination is extensive (SFEI 2021).

The 2016 effort led by BACWA and supported by the Regional Water Board and SFEI resulted in the Regional Water Board's adoption of Order No. R2-2016-0008, *Alternate Monitoring and Reporting Requirements for Municipal Wastewater Dischargers for the Purpose of Adding Support to the San Francisco Bay Regional Monitoring Program* (RMP) which had an effective date of April 1, 2016 (San Francisco Bay Regional Water Quality Control Board 2016). Participation in the 2016 Order was voluntary, and 36 of the 38 eligible permittees participated.

The 2016 Order contains reduced monitoring requirement for the following constituents:

1. Chronic Toxicity species re-screening (Provision VI.B.1 of the 2016 Order)
2. Dioxin-TEQ via EPA Method 1631 (Provision VI.B.2)

3. Volatile Organics (VOCs) via EPA Method 624 and Base, Neutral, and Acid-Extractable Organics (BNAs) via EPA Method 625 (Provision VI.B.3)
4. PCB Aroclors via EPA Method 608 (Provision VI.B.4)

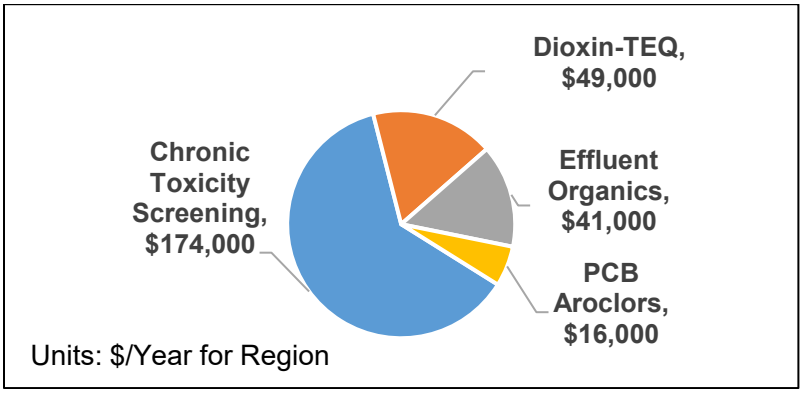
1.3 Implementation of the 2016 Order

Since 2016, the Alternative Monitoring and Reporting Program has raised $1.3M to support the RMP.

When the 2016 Order was implemented, agencies were asked to commit to five years of participation. Participating agencies provide a "supplemental contribution" to the RMP in addition to paying regular RMP fees. These funds were used to support a variety of RMP-led special studies, such as those related to nutrients, selenium, microplastics, and emerging constituents like PFAS. Since 2016, the Alternative Monitoring and Reporting Program has raised $1.32M for support of RMP Special Studies (BACWA 2017, 2018, 2019, 2020, and 2021).

Tables F-2 and F-3 of the 2016 Order provide a breakdown of the cost savings related to monitoring reductions of specific constituents. The largest component of the cost savings in the 2016 Order (over half) is related to chronic toxicity species screening studies, as shown below in **Figure 1.** Chronic toxicity screening studies are normally required once every 5 years prior to an NPDES permit reissuance, but the 2016 Order waived the requirement.

Figure 1. Cost Impact of Monitoring Reductions from 2016 Order



1.4 Statewide Toxicity Provisions

In December 2020, the State Water Resources Control Board (SWRCB) adopted a resolution containing new toxicity provisions for Publicly-Owned Treatment Works (POTWs). The *Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California* contains new effluent limitations and monitoring requirements for chronic toxicity. The new provisions will come into effect after review and approval by the Office of Administrative Law and the USEPA, which is expected to occur later in 2021. After that, they will be implemented in NPDES permits in the San Francisco Bay region.

The new statewide toxicity provisions will override current monitoring requirements found in BACWA member agency NPDES permit, which are based on the *Water Quality Control Plan (Basin Plan) for the San Francisco Bay Basin* (San Francisco Bay Regional Water Quality Control Board, 2019). The statewide toxicity provisions require a species sensitivity screening to be performed once every 15 years. The new frequency of once per 15 years is less frequent

than the baseline requirement found in current NPDES permits (1/5 years) but more frequent than required under the 2016 Order, which waived the requirement.

Once the statewide toxicity provisions go into effect, the cost savings identified in Table F-2 of the 2016 Order will no longer be applicable. Screening studies will once again be mandatory, over-riding the waiver previously provided by the 2016 Order. This change will negate more than half of the financial benefit of the program to the RMP.

1.5 Replacing the 2016 Order

BACWA proposes to replace the 2016 Order with a replacement suite of monitoring reductions that will continue to free up funding for CEC monitoring to be carried out by the RMP. The proposed replacement would have the following features:

- Monitoring reductions equivalent to a cost savings of approximately $300,000 per year, to continue to provide a comparable revenue stream for RMP CEC monitoring.

  CEC monitoring encompasses monitoring in the Bay, monitoring within wastewater facilities (collection systems, influent, effluent, biosolids, or recycled water), as well as related efforts to improve laboratory analysis methods or characterize fate and transport of CECs within the Bay.

- Implementation within NPDES permits through a permit amendment, with edits to monitoring frequencies incorporated directly into agency permits as they are reissued. Individual NPDES permits would also include language requiring additional funding for the RMP CEC monitoring program. Mandating participation would simplify implementation compared to the 2016 Order, which was optional. The 2016 Order was also confusing for enrollees because actual monitoring requirements were not reflected within their individual NPDES permits.

The following sections provide technical justification for the cost estimates and for the specific proposed monitoring reductions.

2. Basis of Cost Estimates

Each of the proposed monitoring reductions in this report is associated with an estimated cost savings, based on the current required and proposed monitoring frequencies. The basis of these cost estimates is a November 2020 survey of BACWA Laboratory and Permits Committee members. Survey respondents were asked to provide unit cost estimates for the parameters listed below in **Table 1** and shown in **Figure 2.**

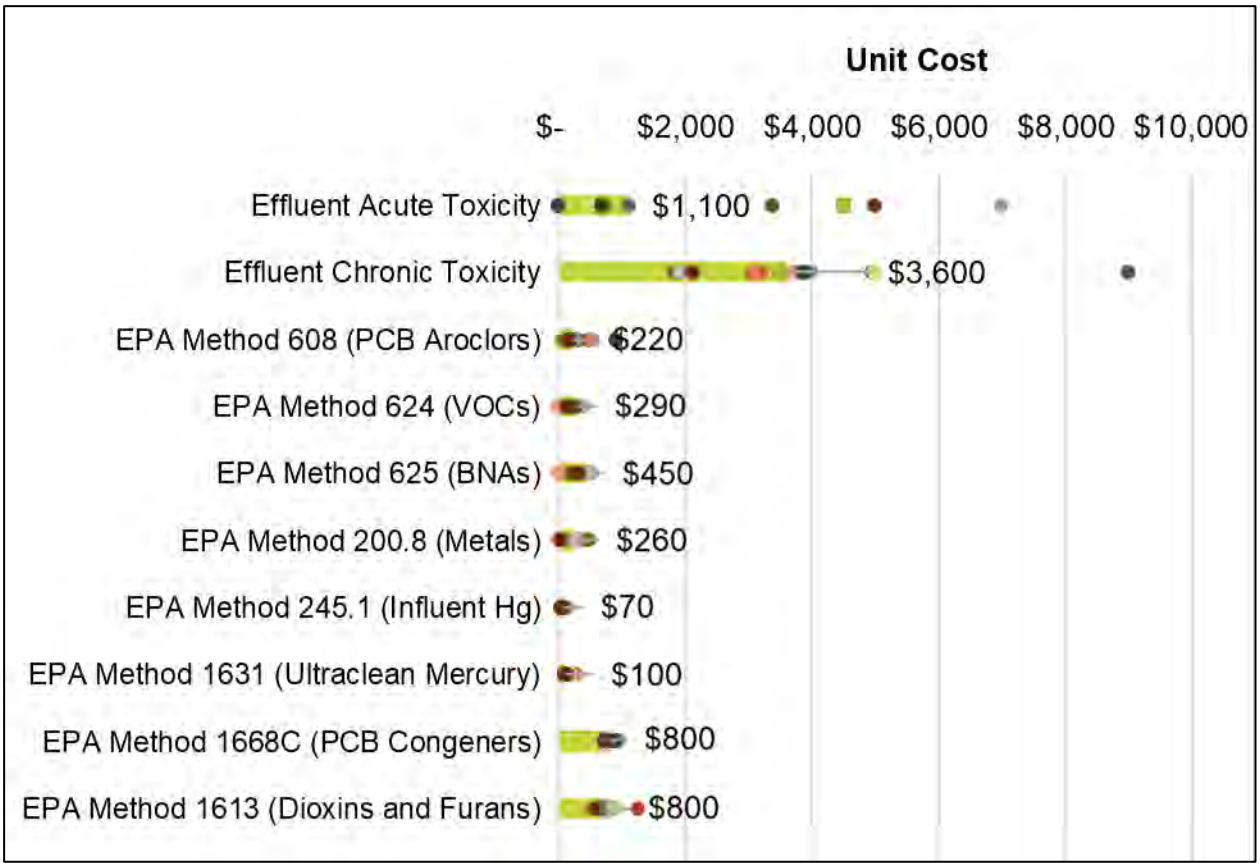
Table 1. Basis of Cost Estimates for Laboratory Analytes

Constituent	Number of Survey Respondents	Minimum Cost per Sample	Maximum Cost per Sample	Median Cost per Sample[1]
Acute Toxicity	9	$500	$7,000	$1,100
Chronic Toxicity	16	$1,845	$9,000	$3,600
EPA Method 608 (PCB Aroclors & Organochlorine Pesticides)	16	$50	$900	$220
EPA Method 624 (VOCs)	15	$64	$375	$290

Constituent	Number of Survey Respondents	Minimum Cost per Sample	Maximum Cost per Sample	Median Cost per Sample[1]
EPA Method 625 (Base/Neutrals and Acids)	15	$140	$520	$450
EPA Method 200.8 (Metals)	14	$16	$484	$260
EPA Method 245.1 (Influent Hg)	12	$25	$142	$70
EPA Method 1631 (Ultraclean Mercury)	16	$87	$284	$100
EPA Method 1668C (PCB Congeners)	17	$700	$975	$800
EPA Method 1613 (Dioxins and Furans)	14	$525	$1,250	$800
EPA Method 8260B (VOCs) and 8270C (BNAs)	8	$195	$804	$570

Notes
1. Rounded to the nearest $10.

Figure 2. Monitoring Costs Reported by BACWA Members

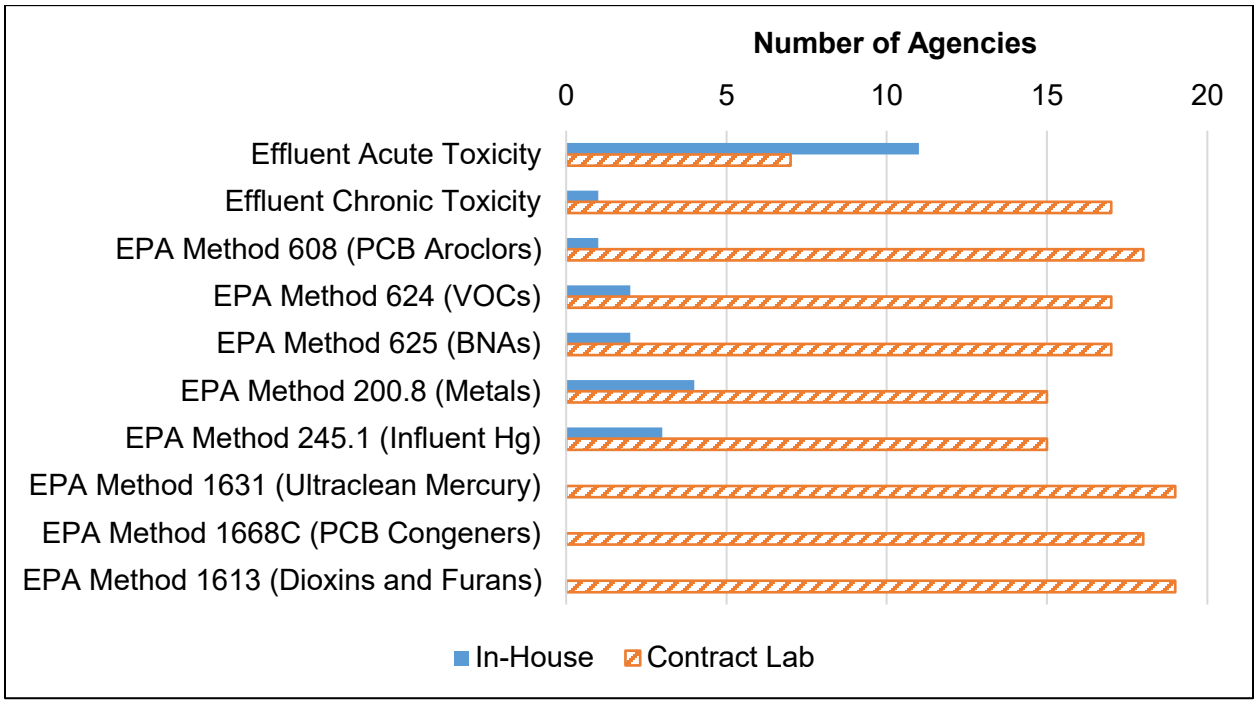


Dots indicate individual agency responses; bars and numbers indicate median values.

Some of the variability in monitoring costs represents a disparity in the cost of an in-house laboratory compared to a contract laboratory. A small number of POTWs use an in-house laboratory for EPA Method 608 (PCB Aroclors), 624 (VOCs), 625 (BNAs), 200.8 (Metals), and

245.1 (Influent Hg), but most samples are sent to contract laboratories for analysis, as shown in **Figure 3.** All survey respondents reported using a contract laboratory for EPA Method 1631 (Ultraclean Hg), 1668C (PCB Congeners), and 1613 (Dioxins and furans).

Figure 3. Use of In-House vs. Contract Laboratories



Throughout this proposal, all monitoring costs are presented as an annual total for the region ($/Year), rounded to the nearest thousand dollars. Monitoring costs were calculated by summing up individual frequencies for each agency, assuming that each agency's costs are based on the median unit costs.

3. Proposed Elements of the 2016 Order to be Retained

All elements of the 2016 Order are proposed to be carried forward, except for the provision waiving the requirement to conduct a Chronic Toxicity Re-Screening (Provision VI.B.1). This provision cannot be carried forward due to the new statewide toxicity provisions, as explained in Section 1.4 No changes to the frequencies from the 2016 Order are proposed. This section provides updated cost estimates for these monitoring reductions.

The total value of the monitoring reductions described in the sections below is estimated to be $100,000. This is very close to the $103,087 cost reduction estimated in Table F-2 and F-3 of the 2016 Order (excluding chronic toxicity), which affirms the cost-estimating approach.

3.1 Effluent Dioxin-TEQ via EPA Method 1613

Dischargers are required to monitor for 17 dioxin and furans congeners, which are used to calculate a toxic equivalency measure called dioxin-TEQ. Compliance monitoring is required because each individual NPDES permit contains a numeric effluent limitation for dioxin-TEQ to implement the narrative water quality objective for bioaccumulation. The monitoring requirement is listed within individual NPDES permits.

Consistent with the 2016 Order, BACWA proposes a monitoring frequency of 1/Permit Term (0.2 samples per year) for all Dischargers.

As noted in the Fact Sheet of the 2016 Order, all of the dioxin and furan congeners are typically non-detect except for low levels of hepta-congeners and octa-congeners, which are the least toxic of the congeners. This continues to be the case for monitoring conducted since 2016. The only congeners reported among the Dischargers at quantifiable levels from 2015 through January 2021 were hepta- and octa-congeners (CIWQS, 2021).

The median laboratory cost reported by survey respondents was $800/sample. This is slightly lower than the $1,000 per sample assumed in the 2016 Order. The total estimated savings from retaining this element of the 2016 Order is $40,000 per year, as shown below in **Table 2.**

Table 2. Cost Impact of Proposed Monitoring Reduction for Dioxin-TEQ

Default Monitoring		**Proposed Monitoring**		**Unit Cost**		**Estimated Regional Cost Impact ($/Year)**
Typical Freq.	# Samples per year in R2	Freq.	# Samples per year in R2	Range	Median	
Ranges from 1/Permit Term (minor) up to 2x/year (major)	57 Samples per year	1/Permit Term	7.4 Samples per year	$525-$1,250	$800	$40,000/Year

3.2 Effluent VOCs and BNAs via EPA Methods 624 & 625

Dischargers are required to monitor for VOCs and BNAs via EPA Method 624 and 625 to fulfill one or both of the requirements below:

(a) **Pretreatment Program Monitoring.** Agencies with an industrial pretreatment program are required to monitor influent and effluent to fulfill pretreatment program requirements. This impacts all facilities with a dry weather flow capacity greater than 5 MGD, and smaller plants with significant industrial users. Twenty-eight (28) Dischargers are in this category, including agencies that share an outfall but do not have an individual NPDES permit, such as the East Bay Dischargers Authority member agencies. The required monitoring frequency ranges from 1/permit term to 2/year.

(b) **Effluent Characterization.** All dischargers, including the eighteen (18) dischargers without pretreatment programs, are required to characterize effluent by conducting monitoring of the priority pollutants listed in Attachment G of each individual NPDES permit. Depending on discharger size, this monitoring requirement ranges in frequency from 1/5 years (most common, since most dischargers in this category are small) up to from 2/year (for the largest dischargers such as the East Bay Dischargers Authority, which is not affiliated with a specific pretreatment program).

To avoid double-counting monitoring costs, agencies were identified as being in one of the two groups listed above, but not both.

As in the 2016 Order, the proposed effluent monitoring frequency is 1/Permit Term (0.2 samples per year) for all Dischargers. For cost-estimating purposes, ten dischargers that also have individual water quality-based effluent limitations for a constituent analyzed using Method 624

(e.g., chlorodibromomethane) or 625 (e.g., benzo(a)anthracene) were assumed to have no monitoring reductions and therefore no cost savings from this change.

There is no regulatory minimum frequency for these monitoring requirements, and except for a few pollutants, these effluent scans often result in non-detects.

The median laboratory cost reported by survey respondents was $290 for VOCs via EPA Method 624 and $450 for BNAs via EPA Method 625. The combined cost of $740 is lower than the combined cost of $840 assumed in the 2016 Order. The total estimated savings from retaining this element of the 2016 Order is $47,000 per year, as shown below in **Table 3.**

Table 3. Cost Impact of Proposed Effluent Monitoring Reduction for VOCs and BNAs

Default Monitoring		**Proposed Monitoring**		**Unit Cost**		**Estimated Regional Cost Impact ($/Year)**
Typical Freq.	# Samples per year in R2	Freq.	# Samples per year in R2	Range	Median	
(a) Agencies with Pretreatment Programs: 2x/year	64 Samples per year	1/Permit Term	7.2 Samples per year[1]	$204-$895	$740	$42,000/Year
(b) Agencies without Pretreatment Programs: Ranges from 1/Year to 1/Permit Term	16 Samples per year	1/Permit Term	9.4 Samples per Year[2]	$204-$895	$740	$5,000/Year
Total	**80 Samples per Year**	**1/Permit Term**	**16 Samples per Year**		**$740**	**$47,000/Year**

Notes
1. Does not include CCCSD, whose individual NPDES permit contains a WQBEL for a constituent analyzed via Method 624 or 625.
2. Does not include Calistoga, Las Gallinas Valley Sanitary District, Mt. View Sanitary District, Rodeo Sanitary District, Sausalito-Marin City Sanitary District, Sewerage Agency of Southern Marin, Sonoma Valley County Sanitation District, St. Helena, or Treasure Island. All have WQBELs for a constituent analyzed via Method 624 or 625.

BACWA also proposes changes to the influent and biosolids monitoring requirements for VOCs and BNAs, as noted below in Section 4.4 (see page 15).

3.3 Effluent PCB Aroclors and Organochlorine Pesticides via EPA Method 608

Dischargers are required to complete effluent analysis using EPA Method 608 to fulfill two requirements:

(a) **Compliance with PCB Effluent Limitations.** Table E-3 of the Mercury and PCBs Watershed Permit (NPDES Permit No. CA0038849, currently Order No. R2-2017-0041)

requires effluent monitoring for PCB Aroclors using EPA Method 608 at a frequency of 1/Year for minor dischargers and 2/Year for major dischargers. The data are used to assess compliance with the limitations for PCBs listed in Table 4B of the Mercury and PCBs Watershed Permit.

Based on data available in CIWQS (2021), there have been no detections in POTW effluent during the period of January 2015 to January 2021 for the seven PCB Aroclors (PCB-1016, PCB-1221, PCB-1232, PCB-1242, PCB-1248, PCB-1254, and PCB-1260).

(b) **Effluent Characterization.** All dischargers are also required to characterize effluent by conducting monitoring of priority pollutants listed in Attachment G of each individual NPDES permit. Method 608 is included in the full scan for priority pollutants.

For all Dischargers, the frequency required under the Mercury and PCBs Watershed Permit is higher than the frequency required for effluent characterization. Therefore, cost savings were estimated using the monitoring frequencies from the Mercury and PCBs watershed permit. The cost of running a scan using Method 608 was assumed to be the same, regardless of whether organochlorine pesticides were included with the scan of PCB Aroclors.

Consistent with the 2016 Order, BACWA proposes a monitoring frequency of 1/permit term (0.2 samples per year) for all Dischargers. The exception is that one discharger (EBMUD) has a water quality-based effluent limit for another constituent run using Method 608, heptachlor. For this agency, no monitoring reduction or cost savings were assumed.

The median laboratory cost for Method 608 reported by survey respondents was $220, close to the cost of $230 per sample listed in Table F-3 of the 2016 Order. The total estimated savings from retaining this element of the 2016 Order is $13,000 per year, as shown below in **Table 4.**

Table 4. Cost Impact of Proposed Monitoring Reduction for PCBs and Organochlorine Pesticides

Default Monitoring		Proposed Monitoring		Unit Cost		Estimated Regional Cost Impact ($/Year)
Typical Freq.	# Samples per year in R2	Freq.	# Samples per year in R2	Range	Median	
1x/year (minor); 2x/year (major)	68 Samples per year	1/Permit Term	9.4 Samples per year	$50-$900	$220	$13,000/Year

4. Proposed New Monitoring and Reporting Reductions to Augment RMP Funding

BACWA proposes several new monitoring and reporting reductions to add on to the elements from the 2016 Order:

- Reduced monitoring frequency for PCB Congeners in effluent
- Reduced monitoring frequency for mercury in influent and effluent
- Reduced monitoring frequency for VOCs and BNAs in influent and biosolids
- Reduced frequency for submitting a local limits evaluation report
- Accelerated phase-out of acute toxicity monitoring

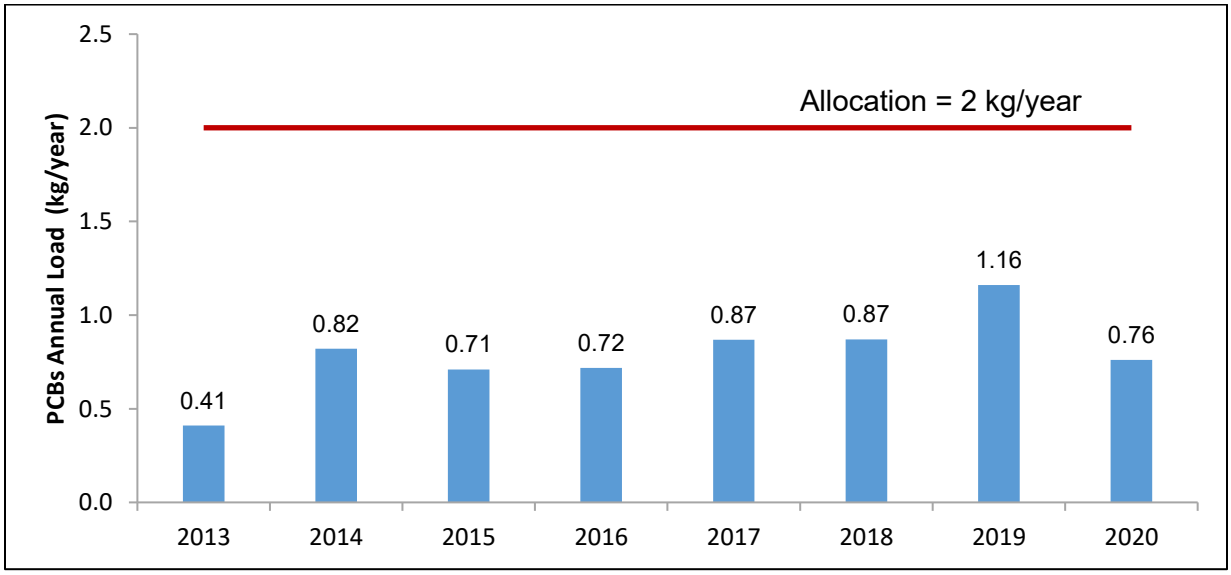
Each of these monitoring reductions is discussed in the sections below.

4.1 Effluent PCB Congeners via Method 1668C

Dischargers are required to monitor for PCB congeners via Method 1668C according to Table E-3 of the Mercury and PCBs Watershed Permit (Order No. R2-2017-0041). The required monitoring frequency ranges from 1/year for the smallest dischargers (those with a design flow less than 5 MGD) up to 1/quarter for the largest dischargers (those with a design flow greater than 50 MGD).

The total sum of PCB congeners is used to calculate the total PCB load from the Dischargers to San Francisco Bay. Regional Water Board staff use this total PCB load for comparing with the TMDL load allocation for municipal wastewater. Over the period 2013-2020, the average municipal wastewater load was less than 1 kg/year, or about 3% of the total estimated load of 33 kg/year to San Francisco Bay (Basin Plan Table 7.2.3-1). Annual loading values were well below the TMDL load allocation of 2 kg/year, as shown below in **Figure 4**.

Figure 4. Municipal Wastewater Annual PCBs Mass Loading



Notes
Source: San Francisco Bay Regional Water Quality Control Board, 2021.
https://www.waterboards.ca.gov/rwqcb2/board_info/agendas/2021/March/4_ssr.pdf

PCB aroclor data, not PCB congener data, are used to track individual permittee compliance with effluent limitations. Even though Method 1668C (PCB congeners) has a lower detection limit than Method 608 (PCB aroclors), it cannot be used for permit compliance because Method 1668C is not a fully approved and promulgated method under 40 C.F.R. Part 136.

The proposed change in monitoring frequency for PCB Congeners is listed below in **Table 5.**

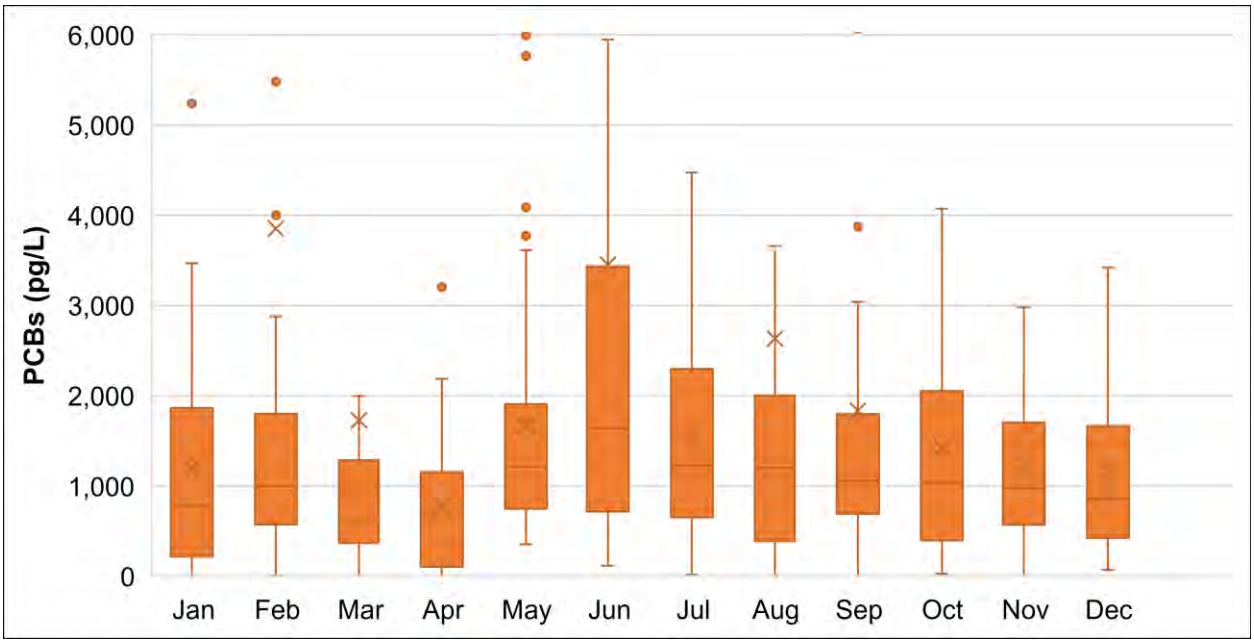
Table 5. Proposed Monitoring Reduction for PCB Congeners via Method 1668C

Discharger Size		Current Frequency	Proposed Frequency
Large	Design Flow > 50 MGD	1/Quarter	1/Year

Medium	5 MGD < Design Flow < 50 MGD	2/Year	1/Year
Small	Design Flow < 5 MGD	1/Year	1/Year (No change)

BACWA considers the proposed monitoring reduction to be reasonable because there is no obvious seasonal signal in PCB concentrations, as shown below in **Figure 5**. Order No. R2-2017-004 notes that "the primary source of PCBs in municipal wastewater is expected to be human waste" (page F-12), so the lack of a strong seasonal trend is not surprising.

Figure 5. Monthly Variability in PCB Congeners at Municipal POTWs, 2015-2020



Notes
PCB data provided by James Parrish, San Francisco Bay Regional Water Quality Control Board via email on March 1, 2021 in the file "PCB Load Summary 2011-2020.xlsx" All municipal wastewater results for 2015-2020 (n=420) were used to create the box and whisker plot. Sample results exceeding 6,000 pg/L (n=10) are not displayed.

BACWA proposes to implement this change along with a note to indicate reporting in units of pg/L rather than µg/L for reporting to CIWQS. This change would simplify the use of CIWQS data for tracking the total load.

The median laboratory cost for PCB congeners via Method 1668C as reported by survey respondents was $800. The total estimated savings from this proposed monitoring reduction is $31,000 per year, as shown below in **Table 6.**

Table 6. Cost Impact of Proposed Monitoring Reduction for PCB Congeners

Default Monitoring		**Proposed Monitoring**		**Unit Cost**		**Estimated Regional Cost Impact ($/Year)**
Typical Freq.	# Samples per year in R2	Freq.	# Samples per year in R2	Range	Median	
Ranges from 1/Quarter to 1/Year	61 Samples per year	1/Year	23 Samples per year	$700-$975	$800	$31,000/Year

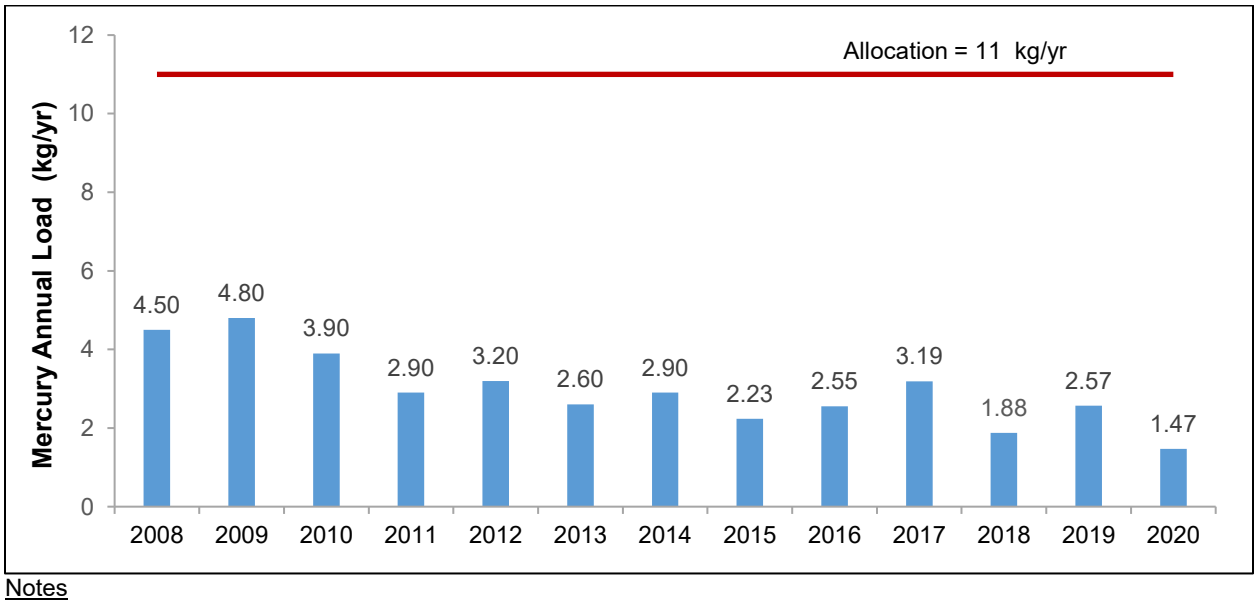
4.2 Effluent Mercury via Method 1631

Dischargers are required to conduct effluent monitoring for mercury via Method 1631 per Table E-3 of Order No. R2-2017-0041. Major dischargers (design flow greater than 1 MGD) are required to sample monthly, while minor dischargers (design flow less than 1 MGD) are required to sample quarterly. Two very small dischargers have a sampling frequency of once per year.

Effluent mercury monitoring data are used to assess compliance with the effluent limits for mercury found in Table 4A of Order No. R2-2017-0041, which includes limits expressed as an average annual mass (kg/year), an average monthly concentration (µg/L), and an average weekly concentration (µg/L). Plants that provide filtration ("advanced secondary") have lower concentration limits than those that provide secondary treatment only.

Effluent mercury monitoring data are also used to assess compliance with the San Francisco Bay Mercury TMDL, which allocates 11 kg/year to municipal wastewater. As shown below in **Table 5,** annual loading is well below the TMDL load allocation and shows a declining trend.

Figure 6. Municipal Wastewater Annual Mercury Mass Loading

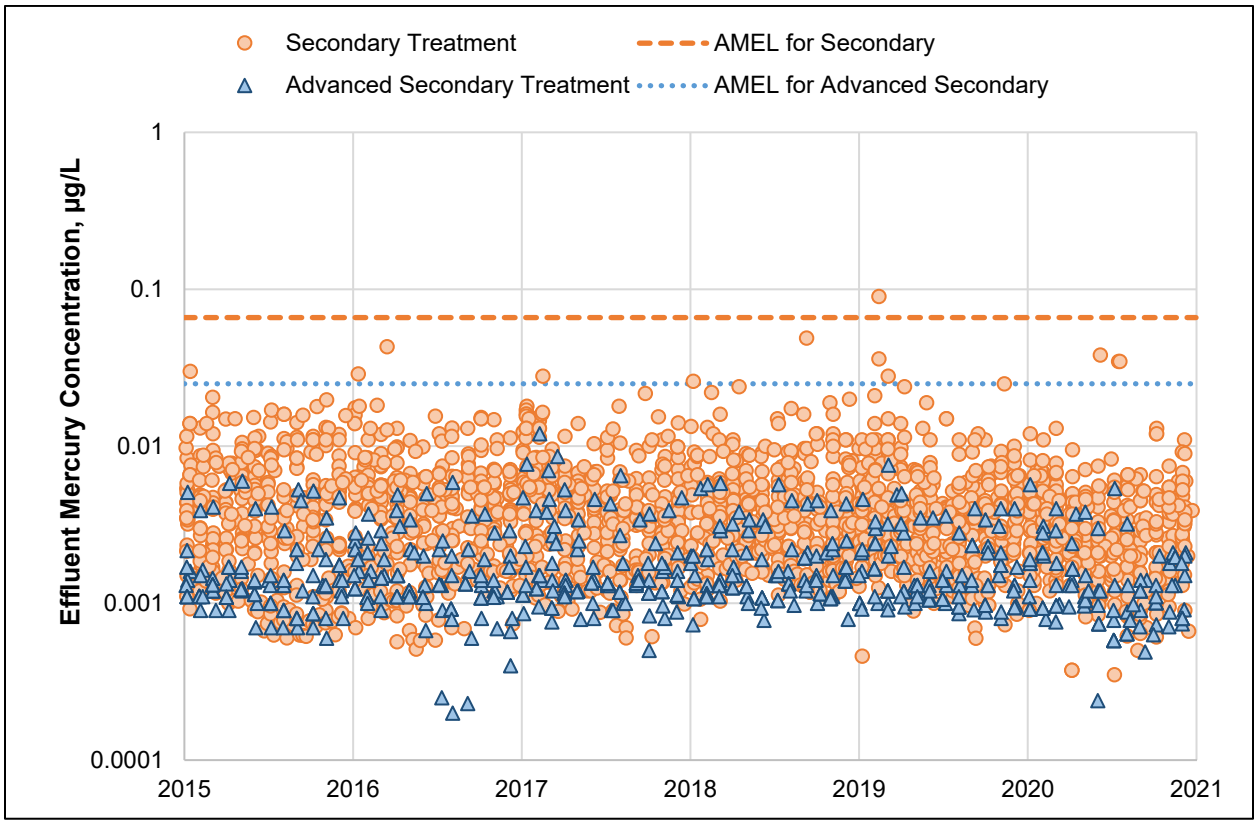


Notes
Source: https://www.waterboards.ca.gov/rwqcb2/board_info/agendas/2021/March/4_ssr.pdf

Figure 7 below shows that effluent concentrations for mercury are typically an order of magnitude below the average monthly effluent limitations. Out of 2,763 samples collected during the six-year period of 2015-2020, just one sample result violated the effluent limit (Rodeo Sanitary District, February 2019). Accelerated monitoring within the following month for this discharger indicated that the problem did not persist, with concentrations falling to more than 20 times below the outlier value.

Since typical effluent concentrations are well below limits, BACWA believes that a lower monitoring frequency would be sufficient to demonstrate ongoing compliance with the Mercury and PCBs watershed permit.

Figure 7. Municipal Wastewater Effluent Data for Mercury, 2015-2020



Notes
Source: CIWQS query for effluent data, January 2015 through December 2020. Only detected values are shown (n=2,749). Non-detected values (n=14) are not shown.

BACWA proposes reducing the effluent monitoring frequency required by the Mercury and PCBs Watershed Permit for major dischargers, from 12/year to 4/year. BACWA proposes that the requirement for minor dischargers be reduced from 4/year to 2/year.

Ultra-clean sampling (EPA Method 1669) and ultra-clean analytical methods (EPA Method 1631) are required for effluent mercury monitoring. The use of ultra-clean methods provides comparatively low detection limit and quantitation limits. The method requires analysis of four samples: the effluent sample, a bottle blank, field blank, and equipment blank. The analysis cost therefore includes the cost of four samples per sampling event.

The median laboratory cost for analysis of mercury via Method 1631 as reported by survey respondents was $100. Assuming four samples per monitoring event, the total estimated savings from the proposed monitoring reduction is $129,000 per year, as shown below in **Table 7.**

Table 7. Cost Impact of Proposed Monitoring Reduction for Effluent Mercury

Default Monitoring		Proposed Monitoring		Unit Cost		Estimated Regional Cost Impact ($/Year)[1]
Typical Freq.	# Samples per year in R2	Freq.	# Samples per year in R2	Range	Median	
1/Month (Major) 1/Quarter (Minor)	493 Samples per year	1/Quarter (Major) 2/Year (Minor)	170 Samples per year	$87-$284	$100	$129,000/Year

Notes
1. Assumes analysis of four samples per sampling event.

4.3 Influent Mercury via Method 245.1

Dischargers with pretreatment programs are required to conduct influent mercury monitoring as indicated in their individual NPDES permits, typically in a table called "Pretreatment and Biosolids Monitoring" in the Monitoring and Reporting Program (Attachment E). For most dischargers with an influent monitoring requirement, the required frequency is 1/Month. The exception is the City of Burlingame, which is required to sample annually for influent mercury, and Delta Diablo, which has no influent monitoring requirement. The analytical method for influent mercury samples is typically EPA Method 245.1. Ultra-clean sampling (EPA Method 1669) and ultra-clean analytical methods (EPA Method 1631) are typically not performed for influent monitoring. Influent monitoring for mercury is used to fulfill the following pretreatment programmatic requirements:

- Confirm the effectiveness of residential and commercial source control programs, such as the requirement for dental offices to install amalgam separators.
- Track mercury removal through the treatment plant (typically on the order of 90% removal), which is used to establish technically-justified local limits for industrial dischargers.
- Confirm that influent loads are not increasing due to unpermitted discharges.

Because of the large amount of baseline information already available regarding influent water quality, the typical ranges for influent concentrations are well-established. Quarterly monitoring is sufficient to fulfill the data requirements listed above.

The median laboratory cost for analysis of mercury via Method 245.1 as reported by survey respondents was $70. The total estimated savings from this proposed monitoring reduction is $13,000 per year, as shown below in **Table 8.**

Table 8. Cost Impact of Proposed Monitoring Reduction for Influent Mercury

Default Monitoring		Proposed Monitoring		Unit Cost		Estimated Regional Cost Impact ($/Year)[1]
Typical Freq.	# Samples per year in R2	Freq.	# Samples per year in R2	Range	Median	
1/Month	277 Samples per year	1/Quarter	93 Samples per year	$25-$142	$70	$13,000/Year

The potential cost savings from reduced influent monitoring is considerably less than the estimated savings from reduced effluent monitoring. Despite the relatively small cost-saving potential of this proposal, it has the additional benefit of providing paired influent-effluent data, and is logical for laboratory staff to implement.

4.4 Pretreatment Program VOCs and BNAs

Dischargers with pretreatment programs are required to monitor for VOCs and BNAs in influent and biosolids. The VOC and BNA data are used by pretreatment program staff to ensure that industrial loading of organic pollutants is not threatening treatment plant operation, effluent quality, or biosolids quality, and to ensure that illicit industrial activity is not occurring. The information is not required for biosolids landfill disposal or for biosolids land application.

The current monitoring frequency for agencies with pretreatment program ranges from 2/year to 1/permit term. BACWA proposes to reduce the monitoring frequency for 12 agencies currently monitoring 2/year for influent organics and/or biosolids organics. The 14 agencies currently performing monitoring 1/year or 1/permit term would not be affected by this change. Their experience demonstrates that a higher monitoring frequency is not necessary for successful pretreatment program operation.

Influent organics are analyzed using EPA Method 624 for VOCs and EPA Method 625 for BNAs. As noted previously, the combined median cost for these analyses according to survey respondents is $740 per sample. Biosolids organics are analyzed using EPA Method 8260B for VOCs and EPA Method 8270C for BNAs. The combined median cost for these analyses according to survey respondents is $570 per sample. The total estimated savings from these proposed monitoring reductions is $17,000 per year, as shown below in **Table 9**.

Table 9. Cost Impact of Proposed Influent and Biosolids Monitoring Reductions for VOCs and BNAs

Default Monitoring		**Proposed Monitoring**		**Unit Cost**		**Estimated Regional Cost Impact ($/Year)**
Typical Freq.	# Samples per year in R2	Freq.	# Samples per year in R2	Range	Median	
Influent – 1/permit term 1/year, or 2/year	37 Samples per year	1/permit term or 1/year	22 Samples per year	$204-$895	$740	$11,000/Year
Biosolids – 1/permit term 1/year, or 2/year	32 Samples per year	1/permit term or 1/year	21 Samples per year	$195-$804	$570	$6,000/Year
Total	**69 Samples per Year**	**1/permit Term**	**43 Samples per Year**			**$17,000/Year**

4.5 Evaluation of the Need to Revise Local Limits

Dischargers with pretreatment programs are required to evaluate local limits once every 5 years due to a Special Provisions within each of the individual NPDES permits. Sample language from EBMUD's NPDES Permit (Order No. R2-2020-0024) is listed below:

"**6.3.4. Special Provisions for Publicly-Owned Treatment Works**

6.3.4.1. Pretreatment Program. The Discharger shall implement and enforce its approved pretreatment program in accordance with federal pretreatment regulations … The Discharger's responsibilities include, but are not limited to, the following:

6.3.4.1.4 Evaluation of the need to revise local limits under 40 C.F.R. section 403.5(c)(1) and, within 180 days following the effective date of this Order, submission of a report describing the changes, with a plan and schedule for implementation."

The requirement to evaluate local limits once per permit term is not a state or federal requirement. Local limits must be technically-based, but there is no minimum frequency for updating the technical analysis in a written report. Elsewhere in the state, it is common to conduct local limits studies less frequently than once every 5 years, and the studies are often performed according to the timing of major plant upgrades, changes in industrial discharger loading, or similar triggers. BACWA proposes to modify this requirement so that the local limits studies can be conducted as infrequently as once every 10 years.

The cost to perform a local limits study was conservatively estimated at $20,000 based on the typical cost of hiring a consultant team to perform a local limits study (typically at least $30,000). Some agencies perform this analysis in-house, which may be more cost-efficient.

Table 10. Cost Impact of Proposed Reduction in Local Limits Study Frequency

Default Monitoring		**Proposed Monitoring**		**Unit Cost**		**Estimated Regional Cost Impact ($/Year)**
Typical Freq.	# Samples per year in R2	Freq.	# Samples per year in R2	Range	Median	
Once every 5 years	5.4 Studies per year	Once every 10 Years	2.7 Studies per year	n/a	$20,000	$54,000

4.6 Accelerated Phase-Out of Acute Toxicity Monitoring

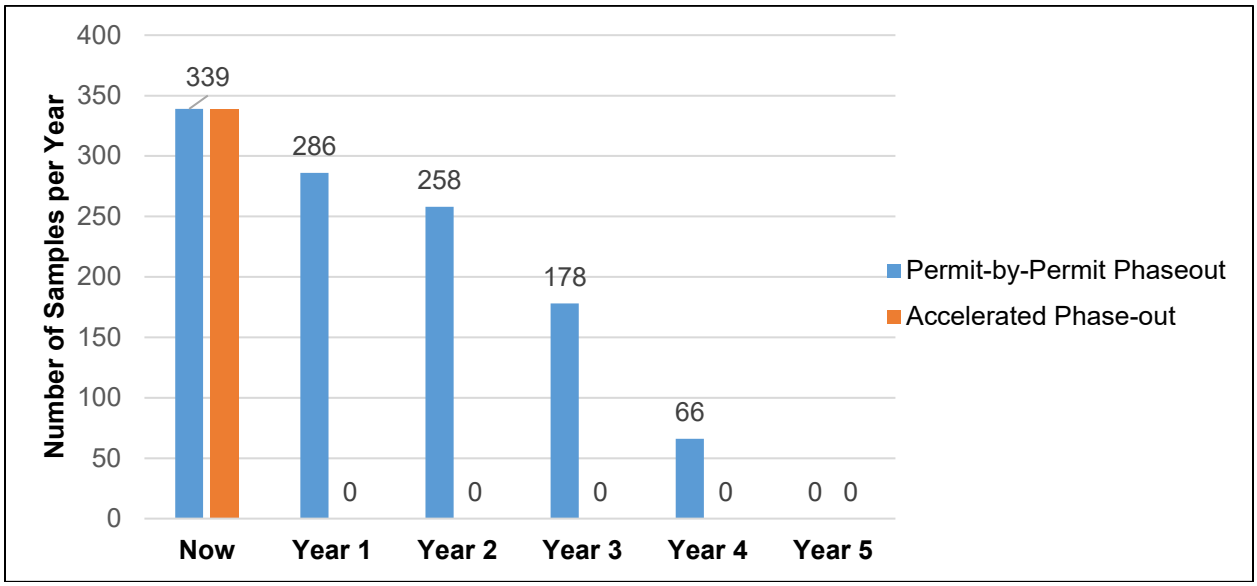
All POTWs discharging to inland or estuarine receiving water currently conduct acute toxicity monitoring, on a frequency ranging from 1/Year to 1/Month. The requirement to conduct acute toxicity monitoring is expected to be superseded by the new statewide toxicity provisions, if and when they come into effect. This change could be rolled out on a permit-by-permit basis, which would require five years for full implementation. Alternatively, the change could be implemented within a blanket permit amendment, which would accelerate implementation and the resultant cost savings.

Assuming a blanket permit amendment is adopted by the end of 2021 (to be conservative) the number of acute toxicity tests that could be avoided was estimated as follows:

- Permits adopted in 2016 or 2021: 4 years of testing avoided (2022 through 2025)
- Permits adopted in 2020: 3 years of testing avoided (2022, 2023, 2024)
- Permits adopted in 2019: 2 years of testing avoided (2022, 2023)
- Permits adopted in 2018: 1 year of testing avoided (2022)
- Permits adopted in 2017: No tests avoided – new requirement would go in 2022 permits

The number of tests performed per year will vary, depending on whether the Regional Water Board pursues a permit-by-permit implementation vs. an accelerated implementation. The difference in the number of tests is shown below in **Figure 8.**

Figure 8. Accelerated Phase-Out of Acute Toxicity Monitoring



Unlike other monitoring costs discussed in this report, there is no long-term ongoing cost savings attributable to accelerated phase-out of the acute toxicity monitoring requirement. The monitoring requirement, and resultant cost savings, will phase out after 5 years. Nonetheless, BACWA proposes to bundle this monitoring change with the blanket permit amendment as a way of accelerating cost savings and freeing up resources for other pressing laboratory initiatives. The laboratory accreditation regulations recently adopted by the state's Environmental Laboratory Accreditation Program add a significant workload for POTW laboratory staff, and removing acute toxicity monitoring requirements would free up staff time for this work, particularly in larger labs that conduct the test in-house. Based on the survey responses, at least 11 POTW labs conduct the test in-house; see **Figure 3**.

The median laboratory cost for acute toxicity testing was reported by survey respondents was $1,100. There is a large range of reported costs ($500 - $7,000), reflecting a high valuation of laboratory staff time for those labs that perform the test in-house. The total estimated savings from this proposed monitoring reduction is $638,000 over 4 years, as shown below in **Table** 11Table 11**.**

Table 11. Cost Impact of Accelerated Phase-Out of Acute Toxicity Monitoring

Default Monitoring		**Proposed Monitoring**		**Unit Cost**		**Estimated Regional Cost Impact ($/Year)**
Typical Freq.	# Samples per year in R2	Freq.	# Samples per year in R2	Range	Median	
Ranges from 1/Month to 1/Year	339 Samples per year	None	0	$500-$7,000	$1,100	$638,000 over 4 years

Spread over ten years, the accelerated phase-out of acute toxicity monitoring is equivalent to a cost savings of approximately $64,000 per year.

5. Summary

The estimated cost savings from the proposed monitoring reductions discussed in Section 3 and Section 4 are summarized below in **Table 12** and illustrated in

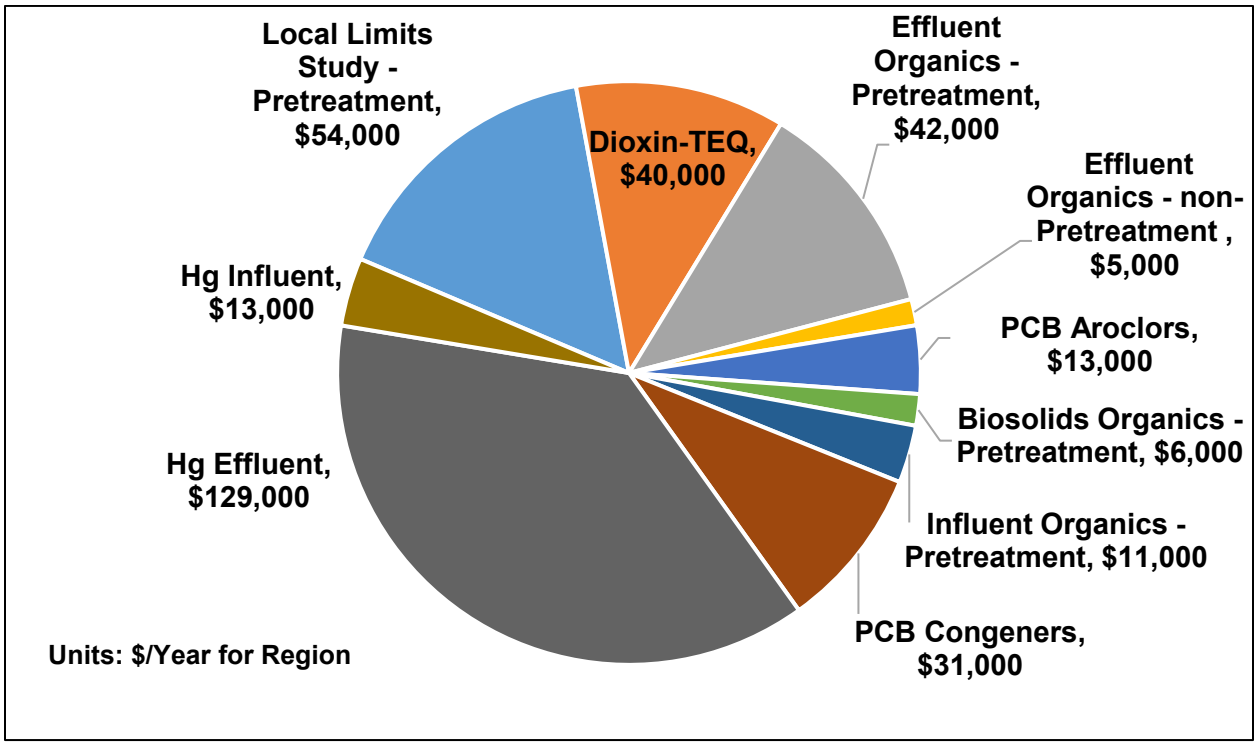
Table 12. Summary of Estimated Cost Savings from Proposed Monitoring Reductions

Description of Monitoring Requirement	Default Frequency	Proposed Frequency	Unit sample cost	Estimated Regional Cost Impact
Dioxin-TEQ[1]	Ranges from 2x/year (Major) to 1/Permit Term (Minor)	1/Permit Term	$800	$40,000
Effluent Organics – Pretreatment[1]	2x/year	1/Permit Term unless WQBELs apply	$740	$42,000
Effluent Organics – non-Pretreatment[1]	Ranges from 1/Year to 1/Permit Term	1/Permit Term unless WQBELs apply	$740	$5,000
PCB Aroclors[1]	2x/year (Major) 1x/year (Minor)	1/Permit Term	$220	$13,000
PCB Congeners	Ranges from 1/Quarter to 1/Year	1/Year	$800	$31,000
Hg Effluent	1/Month (Major) 1/Quarter (Minor)	1/Quarter (Major) 2/Year (Minor)	$100 x 4	$129,000
Hg Influent – Pretreatment	1/Month	1/Quarter	$70	$13,000
Influent Organics – Pretreatment	1/permit term, 1/year, or 2/year	1/permit term or 1/year	$740	$11,000
Biosolids Organics – Pretreatment	1/permit term, 1/year, or 2/year	1/permit term or 1/year	$570	$6,000
Local Limits Study - Pretreatment	Once every 5 years	Once every 10 Years	$20,000	$54,000
Subtotal				**$344,000 per Year**
Acute Toxicity	Ranges from 1/Month to 1/Year	Monitoring ceases in 2022	$1,100	$638,000 over a 4-year period (2022-2025)
Total with Acute Toxicity phase-out spread over 10 years				**$408,00 per year**

Notes

1. For agencies participating in the 2016 Order, this monitoring frequency for this constituent was revised to a lower frequency. The “current typical frequency” is the requirement in the absence of the 2016 Order.

Figure 9. Contributions of Proposed Monitoring Reductions to Estimated Cost Savings



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Issue Descriptions for the 2021 Triennial Review of the San Francisco Bay Basin Water Quality Control Plan

April 2021

Contents

1. Introduction

The San Francisco Bay Regional Water Quality Control Board (Water Board) is conducting the 2021 triennial review of the water quality standards in its Water Quality Control Plan (Basin Plan, http://www.waterboards.ca.gov/sanfranciscobay/basin_planning.shtml). The last triennial review was completed in 2018. The Water Board's triennial review will identify those issues that are considered a priority to address through Basin Plan amendment projects. Based on previous stakeholder comments, coordination with the statewide Basin Plan roundtable, and a review of regulatory program needs, Water Board staff has identified the following issues within the Basin Plan for consideration in the upcoming 2021 triennial review. The projects are presented in categories of project type: beneficial uses, water quality objectives, implementation plans, other plans and policies, and essential basin planning activities. Their order within these categories does not reflect their priority, which will be established through the triennial review public process. We prepared this list to inform the public and inspire interested parties to generate ideas to share with us to assist in our efforts to identify and prioritize Basin Plan amendment projects that will best address the water quality planning needs of our region.

2. Update Beneficial Uses

State policy for water quality control in California is directed toward achieving the highest water quality consistent with maximum benefit to the people of the State. The beneficial uses described in Chapter 2 of the Basin Plan define the resources, services, and qualities of the State's aquatic systems. The Water Board is charged with protecting all these beneficial uses from pollution and nuisance that may occur as a result of waste discharges in the Region. Beneficial uses of surface water bodies (lakes, rivers, and wetlands) and groundwater aquifers presented here serve as a basis for establishing water quality objectives and discharge prohibitions to attain this goal.

2.1. Designate Tribal Tradition and Culture, Tribal Subsistence Fishing, and Subsistence Fishing Beneficial Uses in the San Francisco Bay Region

In 2017, the State Water Board adopted Resolution No. 2017-0027. The provisions for this resolution (Final Part 2 of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California—Tribal and Subsistence Fishing Beneficial Uses and Mercury Provisions) defined three new beneficial uses: Tribal Tradition and Culture (CUL), Tribal Subsistence Fishing (T-SUB), and Subsistence Fishing (SUB). Resolution No. 2017-0027 established these three uses in the Statewide Plan for Inland Surface Waters, Enclosed Bays and Estuaries of California, but it did not designate these uses for any specific waterbodies in California nor require that the uses be designated. Regional Water Boards are generally responsible for designating beneficial uses for specific waterbodies (where the use applies) within their respective regions, and this designation occurs through a basin planning process.

This candidate project is to amend the Basin Plan to designate these three uses for waterbodies in the San Francisco Bay Region. In executing this project, Water Board staff would work with local tribes as well as groups representing subsistence fishing communities to document the existence of these uses along with relevant spatial and temporal attributes. Upon reviewing the available documentation, Water Board staff would determine the appropriate geographic scope (e.g., specific waterbodies or regional designation) of the use designations for the Basin Plan amendment.

2.2. Modify Groundwater Sub-Basin Boundaries

This candidate project would involve revising the boundaries of two groundwater basins located in San Francisco and San Mateo counties to be consistent with the California Department of Water Resources Bulletin 118. DWR's Bulletin 118 defines the Westside Basin and the Islais Valley Basin each as one entire groundwater basin with no delineated sub-basins. This update can also provide an opportunity to make a small adjustment to the boundaries of the Niles Cone sub-basin in the Fremont area. The Basin Plan, Figure 2-10C and Table 2-2, may not conform to Bulletin 118 and should be reviewed and updated as necessary.

The Bulletin 118 boundaries are used as the basis for statewide water resource, planning, management, and funding decisions, as well as the California Statewide Groundwater Elevation Monitoring Program. DWR's draft Basin Boundary Regulations, published on July 17, 2015, state that, "revision of any basin boundaries or creation of new sub-basins approved by the Department shall be consistent with the State's interest in the sustainable management of groundwater as expressed in the Sustainable Groundwater Management Act (SGMA)." While elements of the Basin Plan are not required to be consistent with SGMA, maintaining consistency in statewide groundwater management will make planning efforts more effective and efficient.

3. Update Water Quality Objectives

The overarching purpose of water quality regulation is to protect and maintain thriving aquatic ecosystems and the resources those systems provide to society and to accomplish this in an economically and socially sound manner. California's regulatory framework uses water quality objectives both to define appropriate levels of environmental quality and to control activities that can adversely affect aquatic systems. The following candidate projects provide specific examples of water quality objectives that we are considering updating.

3.1. Clarify Implementation Requirements for Municipal Supply and Agricultural Supply Water Quality Objectives

The Basin Plan should be revised to update the primary and secondary maximum contaminant levels (MCLs) listed in Table 3-5 and clarify appropriate implementation measures for the secondary MCLs. Basin Plan section 3.3.22 prospectively establishes the primary and secondary MCLs specified in Title 22 of the California Code of Regulations as municipal supply water quality objectives. U.S. EPA developed the secondary MCLs as non-mandatory drinking water standards to guide public water systems in managing drinking water for aesthetic considerations, such as taste, color, and odor; concentrations above secondary MCLs do not necessarily present human health risks. When these objectives were originally included in the Basin Plan, the administrative record provided some background information about their implementation. Moreover, California regulations related to drinking water provide guidance on the appropriate averaging periods for determining compliance with MCLs. The MUN and AGR objectives were "meant to be applied at the tap because the level of water treatment or the quality/quantity of blending water could vary significantly. If necessary, exemptions from achieving these objectives could be granted if a consistent level of treatment or blending could be demonstrated."

The Basin Plan should also clarify appropriate implementation measures for the agricultural supply water quality objectives listed in Table 3-6. The Basin Plan does not currently explain how to implement “threshold values” versus “limits.”

3.2. Consider Incorporating Clean Water Act Section 304(a) Criteria into the Basin Plan

Federal regulations at 40 CFR 131.20(a) require states to review their water quality standards in comparison to Clean Water Act Section 304(a) criteria as new information becomes available. Water Quality objectives (WQOs) in Basin Plan Chapter 3 or in effect under the federal California Toxics Rule (2000) that are not as protective as the U.S. EPA nationally recommended criteria need to be updated. States should consider adopting new or revised 304(a) criteria as objectives as part of the Triennial Review process.

In 2015, U.S. EPA issued 304(a) recommendations for new and revised human heath water quality criteria for seven pollutants that are not in the California Toxics Rule (CTR, Arsenic, Chloroform, 3-Methyl-4-Chlorophenol, 1,1,1-Trichloroethane, 1,2,4-Trichlorobenzene, and Zinc). The 2015 ruling contains revised water quality criteria that are more stringent than the CTR for 64 pollutants and contains revised water quality criteria that are less stringent than the CTR for 19 pollutants.

This candidate project would update the Basin Plan to incorporate, as necessary, the revised 304(a) criteria. The Water Board has the authority to incorporate new or updated WQOs into its Basin Plan as needed to adequately protect beneficial uses. However, for pollutants that are part of the CTR, further action by U.S. EPA to de-promulgate the CTR criterion may be necessary in situations where the updated WQO is less stringent than the CTR criterion. Moreover, it is often the case that adopting any new or revised 304(a) criteria is more appropriately and efficiently accomplished by the State Water Board, because the criteria should apply statewide rather than to a single region.

3.3. Develop Flow Criteria for Selected Bay Area Streams and Rivers

The Basin Plan does not currently include narrative or numeric objectives for in-stream flow. There are some water bodies (e.g., creeks, streams, rivers) in the Region where anthropogenically-reduced flows may be harming beneficial uses related to aquatic life during at least a portion of the year.

For this project, flow criteria or objectives would be tributary- or watershed-specific. Water Board staff would determine which water bodies in the Region have beneficial uses at risk from reduced flows, collect available instream flow data, and investigate various modeling and monitoring approaches to ultimately identify high priority water bodies. Flow criteria developed elsewhere relied on multiple years of stream gage data, which are not available for most tributaries in the San Francisco Bay Area. Thus, our approach may require modeling the hydrograph for many catchments. We would seek to leverage limited available resources to conduct needed studies over large geographic areas while addressing multiple species, life stages, and fluvial processes.

The California Environmental Flows Workgroup’s Technical Team is currently developing the California Environmental Flows Framework (CEFF). The CEFF will define a framework for determining in-stream ecological flow criteria to protect aquatic life beneficial uses, recommend

guidelines for its implementation, and provide a coarse resolution set of ecological flow recommendations for all stream classes in California. This effort will support various regulatory and management agencies in developing and implementing local, regional, and statewide ecological flow criteria. The CEFF is a two-tiered framework that provides a set of coarse ecological flow criteria for all streams in California (Tier 1) and a technical guidance document for estimating refined ecological flow criteria at regional to site-specific scales (Tier 2). It is anticipated that the CEFF will serve as a foundation for efforts by the California Environmental Flows Workgroup to develop robust ecological flow regime recommendations statewide.

Flow criteria could address minimum low flows during critical time periods (e.g., summer), but can also incorporate ecological benefits of a complete flow regime, which includes the magnitude, variability, duration, and timing of flows. This project is highly complex and would require close coordination with the California Department of Fish and Wildlife as well as State Water Board's Division of Water Rights because of the nexus with water rights laws.

3.4. Nutrient Management Strategy and Dissolved Oxygen Objectives in San Francisco Bay

This candidate project would involve staff participation in the Nutrient Management Strategy (NMS) for San Francisco Bay and development of a Basin Plan amendment to memorialize key outcomes of the NMS. Water Board staff has been working with stakeholders and scientists including the San Francisco Estuary Institute (SFEI) and the Southern California Coastal Water Research Program (SCCWRP) to support regulatory management decisions through an improved understanding of the role nutrients play in water quality in the San Francisco Bay Estuary. The NMS Science Plan includes: a monitoring program to gather the observations necessary to support modeling of the Bay ecosystem's response to nutrients, a framework to assess the Bay's condition with respect to nutrients, and development of nutrient management strategies, particularly for NPDES municipal wastewater facilities.

The Basin Plan amendment would likely include: a description of the nutrient management strategy for NPDES wastewater facilities (possible nutrient load limitations) and a description of the SF Bay nutrient assessment framework and associated observation program developed through the NMS. Additionally, the candidate Basin Planning project would investigate whether site-specific dissolved oxygen objectives (SSOs) are needed for sloughs and possibly other margin habitats in South San Francisco Bay. If needed, these SSOs would likely be informed by a completed project that included dissolved oxygen SSOs for Suisun Marsh because the approach taken to develop site-specific objectives for Suisun Marsh is expected to be applicable to other shallow-water habitats around the Bay.

3.5. Review Un-ionized Ammonia Water Quality Objective for San Francisco Bay and Freshwaters

This candidate project would be to review and revise, as necessary, the un-ionized ammonia water quality objective for San Francisco Bay Region waterbodies and its associated implementation provisions. Specifically, the purpose of the project is to ensure that the Basin Plan's objective and implementation provisions (e.g., for NPDES permits) are consistent with the magnitude and averaging period of U.S. EPA's acute and chronic saltwater criteria (1989) for un-ionized ammonia as well as U.S. EPA's 2013 recommended freshwater criteria.

3.6. Temperature Limits to Protect Salmonids

This candidate project would involve reviewing the latest scientific information applicable to Bay Area streams to set appropriate temperature thresholds and an acceptable range of water temperatures to protect salmonids at various life stages. The material reviewed would include available information on the multiple stressors to steelhead in Bay Area creeks and whether local steelhead populations are adapted to local conditions. The goal would be to amend Chapter 3 (Water Quality Objectives) of the Basin Plan to incorporate the protective temperature thresholds along with explanatory guidance as to their applicability.

3.7. Clarify Turbidity Water Quality Objective

The Basin Plan's turbidity water quality objective is difficult to interpret:

> *Waters shall be free of changes in turbidity that cause nuisance or adversely affect beneficial uses. Increases from normal background light penetration or turbidity relatable to waste discharge shall not be greater than 10 percent in areas where natural turbidity is greater than 50 NTU.*

This language is often subject to misinterpretation when determining whether dredging operations are negatively impacting water quality in the Bay. The language can be improved for clarity as well as consistency with turbidity objectives found in the Basin Plans from other regions. The project will also revise the objective to state that waste discharges should not increase normal background light penetration or turbidity above 55 NTU in areas where natural turbidity is 50 NTU or less. Such revision would codify the conventional interpretation of this objective.

4. Update Implementation Plans

The Water Board's overall mission is to protect the beneficial uses supported by the quality of the Region's surface water and groundwater. Together, the beneficial uses described in detail in Chapter 2 define the resources, services, and qualities of aquatic ecosystems that are the ultimate goals of protecting and achieving water quality. The objectives presented in Chapter 3 present a framework for determining whether water quality is indeed supporting these beneficial uses. Chapter 4 of the Basin Plan (Implementation Plans) describes in detail the Water Board's regulatory programs and specific plans of action for meeting water quality objectives and protecting beneficial uses. The following are specific implementation plan sections we have identified as candidates for updating.

4.1. Dredge and Fill Policy Update

This candidate project would involve incorporating the "State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State" (Procedures) adopted by the State Water Board into Existing Basin Plan requirements for the placement of fill into waters of the State. Existing Basin Plan requirements apply in some circumstances where the new statewide policy does not (e.g., agricultural roads and stock ponds). Therefore, incorporation of the new Procedures will involve careful clarification of the applicable requirements for various fill activities.

4.2. Environmental Screening Levels (ESLs) for Groundwater Cleanups

Water Board staff would update the Basin Plan with a description of the tiered decision process used to determine relevant exposure pathways and appropriate site cleanup levels using environmental screening levels (ESLs). ESLs are conservative contaminant concentrations in a specific media (soil, soil gas, or groundwater) below which the contaminant can be assumed not to pose a significant, long-term (chronic) threat to human health and the environment. The decision process expands the existing protection of groundwater beneficial uses to include potential risk to human health from indoor air exposure and protection of aquatic receptors.

Accomplishing this project would both promote consistency and optimal resource allocation in groundwater cleanup projects, because ESLs are a powerful tool to focus regulatory attention on the most significant contaminant concerns during site assessment and cleanup. This update would not incorporate the current ESL criteria as fixed numbers but rather memorialize the approach for deriving and applying ESLs to cleanup sites. This project would document our current process for screening sites using a multiple pathway conceptual model, which includes groundwater and surface water interactions.

4.3. Regional Stream Protection Policy

The candidate project is a Basin Plan amendment that would emphasize the importance of protecting riparian corridors and ephemeral ponds in the region. The project would consist of two components. First, we would add information to Chapter 1 that presents current scientific understanding about how riparian corridors and ephemeral ponds play an important role in maintaining healthy aquatic ecosystems. Second, we would add language in Chapter 4 that includes clear definitions and delineation procedures for ephemeral streams and riparian corridors along with policy measures to promote their protection in a variety of permitting contexts.

4.4. Update Cyanide Dilution Credits

The project would be to update Table 4-6 to add cyanide dilution credits for shallow water dischargers and discharge locations not already in the table. This project may also involve simultaneously adding dilution credits for chronic toxicity. Some dischargers (e.g., Fairfield-Suisun and City of Palo Alto) discharge to waters not listed in the table. Therefore, with each permit reissuance, the Water Board must consider appropriate mixing zones and dilution credits for the discharges not listed in Table 4-6. Often, the same effluent is discharged to two or more receiving waters. In these cases, compliance with the effluent limitations is typically measured at just one location; however, different effluent limits may apply. Cyanide effluent limitations may differ for no reason other than that the mixing zones (or lack thereof) result in different dilution credits. As a result, the effective effluent limitations may be more stringent than the Water Board intended when it adopted Table 4-6. This project would ensure consistency and reduce the effort needed to resolve these challenges during permit preparation. This project could be combined with the project to add to the Basin Plan unnamed waterbodies receiving NPDES discharges.

5. Update Plans and Policies

In addition to the Basin Plan, many other plans and policies direct the Water Board's actions or clarify the Water Board's intent. Chapter 5 describes numerous State Water Board plans and

policies and Water Board policies. The following are specific examples of policies we are considering updating.

5.1. Climate Change and Wetland Policy Update

Climate scientists agree that the earth's climate is changing, and sea levels are rising as a result. As the earth's climate changes, California will likely experience rising sea levels, warmer temperatures, more extreme weather, including droughts, and changes in the seasonal patterns of rainfall and snowmelt runoff. California's changing climate can present challenges for every Water Board program, but the Basin Plan does not currently mention climate change or how climate change may affect the Water Board's mission to protect and restore water quality.

The first element of the candidate project would update the Basin Plan to reflect the relationship between climate change and water quality regulation and would consist of multiple elements. First, a narrative description would be added to Chapter 1 to explain how climate change could lead to physical and biological impacts like severe drought, inundation of low-lying areas from sea level rise, threats to wetlands and infrastructure, changes in aquatic species composition, impediments to drainage from low gradient streams, mobilization of contaminants from near-shore contaminated areas, and desiccation of first-order streams.

The second project element would review existing policies that could be used to promote resilience of Bay ecosystems and shoreline areas to sea level rise. Staff efforts to date have focused on three policy areas. We are reviewing: (1) how existing policies regulating wetland fill, wetlands conservation, and ecosystem restoration can best incorporate consideration of sea level rise; (2) the need for updating existing policies to facilitate the use of treated wastewater and stormwater as a source of freshwater to nourish tidal marshes (see candidate project description 4.2); and (3) how sediment management policies can optimize the beneficial reuse of dredged sediment to enhance flood control, support baylands restoration, and promote shoreline resilience.

The scope of the problem makes this project technically complex and challenging, but there is a growing body of information that can inform our policies at the regional level. Other phases of this project could explore other potential changes to the Basin Plan to address other program needs or additional policy development to advance use of natural infrastructure and living shoreline solutions as shoreline adaptation solutions.

6. Essential Basin Planning Activities

Approximately one-sixth of Basin Planning staff resources will likely be reserved for activities that are not discretionary. These essential, or non-discretionary activities, fall into three categories. First, we intend to dedicate a portion of Basin Planning staff resources to attend to projects promoting environmental justice. For example, Project 2.1 (Designate Tribal Tradition and Culture, Tribal Subsistence Fishing, and Subsistence Fishing Beneficial Uses in the San Francisco Bay Region) may be supported in this manner. Second, Basin Planning staff must participate in the Nutrient Management Strategy for San Francisco Bay as well as statewide regulatory program roundtables and workgroups associated with development of statewide policies (e.g., the Biostimulatory Substances Objective and Program to Implement Biological Integrity). Finally, the Planning Division has a responsibility to ensure that the Basin Plan is kept up-to-date and accurate.

This third category of essential activity (ensuring accuracy of the Basin Plan) involves making changes to the Basin Plan that clarify or update some of the program descriptions to be consistent with new laws, plans, and regulations or to correct minor errors. These changes are sometimes needed for clarity and to ensure that the public is informed about the latest requirements to protect water quality. These editorial changes will sometimes be non-regulatory. That is, they would not impose new requirements on permittees, but rather clarify existing regulatory requirements or program descriptions. Because we intend to allocate a portion of our staffing resources to making these editorial changes, the activities described below will not be ranked with the previously described projects. However, we invite public review and comment as well as additional editorial suggestions for the section below.

6.1. Editorial Revisions, Minor Clarifications, or Corrections

Possible Basin Plan editorial changes have been identified by Water Board staff and through suggestions submitted by the public during previous Triennial Reviews. Some of these could be included as additional components for another Basin Planning project. In addition to non-regulatory components from other candidate projects, potential changes include but are not limited to:

- Update Section 4-8 (Stormwater Discharges) to incorporate by reference the limitations on point source stormwater and nonpoint source discharges to provide special protections for marine aquatic life and natural water quality in Areas of Special Biological Significance (ASBS).
- Update Sections 4-8 and 4-14 on urban stormwater to remove outdated and confusing terminology. The two sections should be combined, streamlined, and edited to be consistent with current regulatory practices.
- Discuss requirements of the Sustainable Groundwater Management Act in chapter 4.
- Discuss direct and indirect potable use programs in chapter 4.
- Document the approved Salt and Nutrient Management Plans (SNMPs) for Sonoma Valley, Livermore-Amador Valley, and Santa Clara Valley. There may also soon be specific management actions developed to protect groundwater basins, such as in the nitrate areas of concern of the Livermore and Coyote valleys.
- Cleanup Chapters 5 and 6 in terms of citations to plans and policies as well as water quality monitoring information. Consider dropping Chapter 6 and moving essential material elsewhere in the Basin Plan.
- Update or delete Figure 4-4 noting dredge material disposal and beneficial reuse sites.
- Add to the Basin Plan several unnamed water bodies that receive permitted discharges. The Basin Plan names some of the water bodies in the San Francisco Bay Region and designates beneficial uses for these water bodies. However, a small number of NPDES wastewater permits cover discharges to water bodies not named in the Basin Plan. This should be a straightforward project that could feasibly be combined with another Basin Plan amendment.
- Incorporate statewide mercury objectives into the Basin Plan. In 2017, the State Water Board adopted Resolution No. 2017-0027, which established five new mercury water quality objectives for the protection of people and wildlife that consume fish and apply to all the inland surface waters, enclosed bays, and estuaries of the State that have the applicable beneficial uses. This effort involves making non-regulatory amendments to the

Basin Plan to incorporate these new objectives and make necessary clarifications as to their applicability for various waterbodies throughout the Region.

- Update the Basin Plan's toxicity testing requirements. In December 2020, the State Water Board approved an amendment to the Toxicity Control Provisions of the Policy for Implementation of Toxic Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California. The new toxicity provisions supersede aspects of the Basin Plan's current toxicity policy, so the Basin Plan must be edited to conform to the policy.
- Align the Ocean Plan and Basin Plan for recreational contact use (REC1). The applicability of the water contact recreation (REC1) beneficial use in the Pacific Ocean is defined in the California Ocean Plan. The Ocean Plan restricts effluent limits intended to protect REC1 to a zone bounded by the shoreline and a distance of 1,000 feet from the shoreline or the 30-foot depth contour and areas designated with REC1 by a regional board. The Basin Plan provides no specific details on where REC1 applies, which leads to complications in writing NPDES permits for the San Francisco Public Utilities Commission's Oceanside outfall that discharges effluent well beyond three nautical miles. The project would clarify that the Basin Plan's application of REC1 to the Pacific Ocean would be equivalent to the Ocean Plan's distance and depth contour specification.

7. Projects Removed from Candidate Project List

Two candidate projects from the 2018 Triennial Review (*Revise Instantaneous Chlorine Effluent Limits* and *Incorporate Revised U.S. EPA Recreational Water Quality Criteria for Bacteria*) were removed because we completed them since the previous review. The project in Lake Merced (*Dissolved Oxygen and pH Objectives*) is not a candidate project for the 2021 review because we have already committed staff resources for its completion, so it is not necessary to rank it.

Five additional candidate projects from the 2018 Triennial Review do not appear on the candidate project list for the 2021 Triennial Review. Of these five, two projects (*Addition of Sport Fishing Beneficial Use to Lakes*, and *Revise Pentachlorophenol (PCP) Water Quality Objectives for Salmonids*) are not currently priorities for Water Board regulatory programs. For two additional projects (*Develop Numeric Nutrient Endpoints (NNEs) in Freshwater Streams and Estuaries*, and *Review and Implement Biological Assessment Tools*), there is ongoing staff work and use of Basin Planning resources (see Section 6), but there will not be a need for Basin Planning projects during the next three years for these projects. These may reappear as a candidate Basin Planning projects during the next Triennial Review. Finally, staff evaluated the project (*Review and Update of Policy 94-086 - Using Wastewater to Create, Restore, and Enhance Wetlands*) after the 2018 workshop and determined that no changes to the policy were necessary in order to permit foreseeable restoration projects.

Biosolids White Paper Draft Outline
Version saved on 4/20/21

Please note that this outline is a working draft and remains subject to revision.

1. Purpose and Introduction
    a. How we got here
    b. The Baylands: Ecological and landscape importance
    c. Purpose of white paper: Objectives, outcomes, intended audience
    d. Biosolids and Sea Level Rise: Shared community problems and opportunities
    e. Context: Biosolids as a regional issue with state-wide implications

2. The Baylands fringing San Francisco Bay (content largely exists in SR37 white paper)
    a. Importance of baylands: where we've been and where we're going
        i. Landscape change: historical marshes, present diked baylands, future marshes
    b. Restoration opportunities and flooding vulnerabilities
    c. Ecological investments
    d. Restoration investments

3. Biosolids
    a. What are they?
    b. Current quantities / forecasted quantities
    c. Where / how can they be disposed / used?
        i. Landfill application
        ii. Land application
        iii. Energy
    d. Who manages biosolids?
        i. Individual cities
        ii. Cities acting as a group (e.g. through a JPA)
        iii. BACWA
        iv. Companies who contract to dispose of biosolids
    e. What are beneficial uses of biosolids for agriculture, etc.?
    f. How is agricultural application beneficial/harmful?
        i. Application in baylands requires further treatments (e.g. lime, tilling, herbicide)
        ii. Constituents (e.g. heavy metals, PFA's)
        iii. Elevation change
    g. Opportunities / constraints

4. Current biosolids regulation
    a. State of CA
    b. SF Bay Area
        i. US EPA
        ii. BCDC jurisdiction, etc.
        iii. RWQCB
    c. Focus on north bay because of extensive diked baylands
        i. Sonoma, Marin, Napa and Solano Counties

5. Why are baylands attractive for biosolids?

a. Land application criteria
    i. No impacts to threatened or endangered species or designated critical habitat
b. Legislation about landfills
    i. SB 1383 (Short-lived climate pollutants: organic waste methane emissions reductions)

6. Biosolids in the Baylands
    a. State of CA
    b. SF Bay Area
    c. Four counties of San Pablo Bay

7. Conflicts with conservation
    a. Contaminants
        i. Potential to require capping or removal and remediation depending on constituents and concentrations
    b. Unplanned levee breaches due to flooding and sea level rise
    c. Competition for acquisition
        i. Potential to make biosolid parcels unavailable to restoration for decades
    d. Are there impacts from land application adjacent to tidal wetlands? Runoff, groundwater, etc.?

8. True cost of biosolids in the Baylands
    a. Cost of not restoring to tidal marsh
    b. Cost of land application in baylands vs other locations vs other methods for biosolids disposal
        i. City of Santa Rosa Biosolids Management Strategic Plan https://srcity.org/DocumentCenter/View/13830/Biosolids---2014-Master-Plan
    c. Cost of land application in the baylands factoring in the threat of sea level rise

9. Are there opportunities to manage restoration and biosolids together with public utilities agencies?
    a. What are the existing habitat values of biosolid areas?
    b. Are there habitat enhancements to existing biosolid areas?
    c. Is there a way to do land application that facilitates future restoration?
    d. Can you design a site to accommodate both activities?
    e. What testing is needed to ensure biosolid remediation is not needed prior to restoration?
    f. Implications of land use – i.e. does oat hay harvest keep loading of contaminants of concern to a minimum by taking the crop off the land?
    g. Soil amendment research - e.g. UC Davis?

10. Conclusion / Recommendations
    a. Recommendations for SF Bay Area
    b. Recommendations for four San Pablo Bay counties

Executive Board Special Meeting Agenda

SF Bay Regional Water Board / BACWA Executive Board Joint Meeting

Wednesday, June 2, 1 – 3 PM

ROLL CALL AND INTRODUCTIONS – 1 PM

PUBLIC COMMENT – 1:03 PM

DISCUSSION/OTHER BUSINESS- 1:05 PM

Topic	Goal	Time
1. Agency Updates	• Roundtable from BACWA and Regulators about COVID-19 impacts, drought emergency impacts, and other important updates	1:05
2. Statewide Sanitary Sewer Systems General Order (SSS-WDR)	• Ongoing engagement with State Water Board	1:20
3. Drought	• Recycled water planning • Indoor water use efficiency standards	1:25
4. PFAS	• Update on Regional Special Study, Phase I • Schedule for Phase I and Phase II	1:35
5. CECs and Alternate Monitoring Requirements overhaul	• Schedule update for new statewide toxicity provisions • Update on BACWA efforts to identify monitoring and reporting elements for reduction	1:45
6. Chlorine Residual Basin Plan Amendment	• Schedule update for State and EPA Review • Blanket permit amendment	2:00
7. Nutrients	• Update on development of key tenets for 3rd watershed permit • Discussion of subembayment allocation framework	2:10
8. Triennial Review	• BACWA input	2:30
9. Biosolids	• SB1383 implementation and regulator concerns	2:45

ADJOURNMENT

BayCAN
BAY AREA CLIMATE ADAPTATION NETWORK

We look forward to building resilience with you in 2021/22!

The Bay Area Climate Adaptation Network (BayCAN) is a regional collaborative network of local governments and their partners designed to help the Bay Area respond effectively and equitably to the impacts of climate change on human health, infrastructure and natural systems.

Impacts: BayCAN addresses the full range of climate impacts, including wildfires, heat waves, sea level rise, extreme storm events, and drought.

Geography: BayCAN's geographic focus is the nine-county Bay Area—Santa Clara, San Mateo, Alameda, Contra Costa, San Francisco, Marin, Sonoma, Napa and Solano—with strategic consideration of other regions that significantly affect Bay Area resources and systems.

Adaptation Focus: While BayCAN is principally focused on understanding and equitably addressing climate change adaptation, we recognize that adaptation is inextricably linked to both climate mitigation and to other hazards. Therefore, this network engages, as appropriate, with networks and organizations addressing these other issues, but always from the perspective of climate adaptation and resilience.

2021-22 Member Benefits

Regional Meetings
Four Bay Area-wide meetings (half day) per year for networking, information-sharing, in-depth presentations from climate experts, and the latest adaptation news on leading practices, funding, legislation, and more.

Personal Consultations
Two Personal Consultations per year with BayCAN staff to help problem-solve your top questions/needs.

Adaptation Resource Hub
Access to the latest climate news and resources on the BayCAN **website** www.baycanadapt.org, via the monthly BayCAN Newsletter, and through our regional adaptation project **matrix**.

Equity Program
Supporting the BayCAN membership to embed equity within all adaptation work through consultations, cutting-edge equity resources & **trainings**, cross-region **networking**, and ongoing **education** through our "community of practice," the Equity Work Group

Climate Science Services Program*
Get help with locating, translating and using actionable **science** through this new program for 2020-21.

State Government Engagement*
Input on new state and regional climate policies, tracking **legislation** and **funding** and more through BayCAN's work and our collaboration with the Alliance of Regional Collaboratives for Climate Adaptation (ARCCA).

Peer-to-Peer Networks*
The opportunity to work with peers across the region to problem-solve and share best practices. For 2021-22, there will be two new networks for **Counties** and **Water Districts**.

Emerging Hot Topics*
Work with BayCAN members to prepare for and respond to the 2021 **fire** and **hot weather** seasons.

*Expanded or new programs for 2021-2022

BayCAN Membership Dues Structure
FY 2021-22

Entity	Level	Annual Dues
Counties	-	$5,000
Cities (based on population)	> 250,000 100,000 – 250,000 < 100,000 - $1,000	$5,000 $2,500 $1,000
Water and Wastewater Districts (based on population served)	> 1 million 500,000 – 1 million < 500,000	$3,000 $2,000 $1,000
NGOs/Consortiums/ Independent Local Agencies/ Special Districts (based on annual revenue)	> $5 million $1 million – $5 million $500,000 - $1 million < $500,000	$2,500 $1,500 $500 $250
Private Sector (based on annual revenue)	> $5 million $500,000 - $1 million $500,000 - $1 million < $500,000	$5,000 $2,500 $1,500 $500
Equity-focused organizations or frontline CBOs	-	No Dues

Photos and Testimonials

"BayCAN provides a unique and valuable opportunity for local governments and organizations to connect, learn, and share on a critical topic —how our region can equitably adapt to our changing climate. BayCAN has helped us build relationships, keep up-to-date on the latest science and best practices, and elevate equity in our adaptation work."

--Katie Van Dyke, City of Berkeley

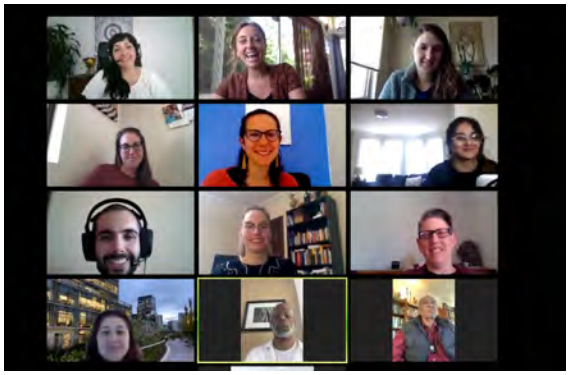
"A great many Bay Area climate leaders are developing bold and creative solutions to help their communities adapt to complex challenges. BayCAN provides an invaluable and essential forum for those leaders to network, learn and magnify their individual successes. Together, through BayCAN, they are literally changing the course of history for the Bay Area."
--Warner Chabot, San Francisco Estuary Institute

"BayCAN has taught us a tremendous amount about groundbreaking adaptation practices in the Bay Area. We look forward to expanding this work next year as we accelerate our actions on sea level rise, drought, wildfires, heat and other climate impacts."

—David Behar, SFPUC

BayCAN provides an exceptional service and value for those working in the climate adaptation space. BayCAN facilitates professional connections and BayCAN meetings are thoughtfully organized and facilitated with reliably valuable content. The free annual consultation service is easy to use, no-strings, and has been very helpful to our City (we've used it twice). If you have limited time to participate in regional climate change meetings, BayCAN is one to keep on your list.

--Julie Weiss, City of Palo Alto



"BayCAN is an indispensable resource for regional collaboration and advancing our county's resilience initiatives. We've learned new approaches and found valuable contacts and frameworks to help us tackle challenges such as heat and the public safety power shutoffs. We're looking forward to more collaboration with BayCAN members to make the Bay Area resilient!"

— Sarah Church, Alameda County

"BayCAN is the place where local planners can share information and learn from one another in the rapidly developing field of climate adaptation planning. It's all about making best use of the wheel, not reinventing it!"

--Jack Liebster, County of Marin

The thing we appreciate most about BayCAN is the open forums provided for thought exchange and the sharing of new ideas. So many of our sister agencies are doing great work but it's not always easy to stay on top of the latest happenings. BayCAN makes sure that happens in a timely manner.

--Chandra Johannesson, EBMUD

Local Government Commission
Leaders for Livable Communities

Invoice #901025

04/14/2021

980 9th Street, Suite 1700
Sacramento, CA 95814
FEIN 94-2791699

Bill To
Lorien Fono
Bay Area Clean Water Agencies
PO Box 24055, MS 702
Oakland CA 94623
United States

Quantity	Item	Rate	Amount
1	**BayCAN Membership**	$1,500.00	$1,500.00
		Subtotal	$1,500.00
		Total	$1,500.00

Bay Area Climate Adaptation Network (BayCAN) Annual Membership
7/1/2021 - 6/30/2022

☑ **Quality Assurance Solutions, LLC**
Quality Systems Consulting for Environmental Testing
A Registered SBE, WMBE, SMBE, and SWBE Firm

QUOTATION

TO	**Lorien Fono** **Bay Area Clean Water Agencies** **LFono@BACWA.org**	**COPIES TO:**	
FROM	**Ms. Diane Lawver** **☑ Quality Assurance Solutions, LLC** **371 Lakeport Blvd, PMB 387** **Lakeport, CA 95453** **Cell: 408-772-0077** **Landline: 707-275-2039** **DLawver@QASolutions-LLC.com**	**x**	**File**
DATE	**May 11, 2021 – Revision 1**	☐	**Total Pages: 3**
SUBJECT	**Quote: Task #1 – Monthly Training Support for the TNI 2016 Standard, Rev 2.1**	☐	

Dear Lorien Fono:

☑Quality Assurance Solutions, LLC (Consultant) is pleased to present this quotation for TNI 2016 Standard, Rev 2.1 monthly training support to the BACWA Laboratory Committee. BACWA (Client) has requested training support from a subject matter expert in the TNI 2016 Standard, Rev 2.1 and its implementation by its members who are environmental testing laboratories. The services to be provided are in support of BACWA's objectives for continuous improvement of its member laboratories and training programs. Due to the complexity of the TNI 2016 Standard, monthly training facilitated by BACWA for its laboratory committee members has been identified as a critical need.

Task #1 - 2021/2022 – Monthly Training Support for the TNI 2016 Standard, Rev 2.1

☑Quality Assurance Solutions, LLC (Consultant) will offer monthly webinar training via Zoom (or equivalent links provided by BACWA) for training its Laboratory committee members on implementation of the TNI 2016 Standard, Rev. 2.1:

- The training shall be offered monthly for up to three (3) hours by the Consultant. The Consultant will project a power point presentation, as well as, supporting documents to guide the training.
- This quotation will also include up to 3 hours per month for presentation preparations, follow up on questions, or for gathering useful tools by the Consultant.
- Attendees are responsible for holding valid copies of copyrighted material that will be discussed during training. To support training, a working, annotated copy of the TNI 2016 Standard, Rev 2.1 shall be distributed electronically to attendees. BACWA will require attendees to affirm they hold valid copies of the TNI 2016 Standard, Rev 2.1 to allow use.
- The training will also reference "no cost" material provided by CA ELAP to certified laboratories developed under contract with A2LA Workplace, the Quality Assurance Manual Template, Rev 3.1 sold by TNI, referrals to webinars sold by TNI or the Consultant, and the TNI Assessor's Checklist based on the TNI 2016 Standard, Rev 2.1. If members want to use those tools, they shall hold valid copies, where applicable.

- The Consultant's support shall be to provide the participants step by step guidance on understanding and implementing requirements for the TNI 2016 Standard, Rev 2.1. The training program shall follow the Table of Contents for the Standard (V1M1, V1M2 Clauses 4.1-4.16; 5.1-5.10; V1M4, V1M5, and V1M7). Where applicable, stricter requirements by CA ELAP will be presented.
- It is estimated that approximately two (2) Clauses will be presented per month, however, the pace of the training will be adjusted to the needs of the trainees and the complexity of the material.
- The support will include practical tips that participants can use to adapt for alignment with the Standard's requirements. Time is planned for a Q&A session from prior trainings.
- The monthly dates are to be determined but roughly planned for the third week of every month starting after July 1, 2021. Holidays may affect this schedule.
- The webinar shall not be recorded. The training material shall not be distributed outside of the BACWA organization.

Cost Estimates

- The hourly rate for this support is $65.00/hour.
- The total cost estimated for this project shall not exceed **$4,680.00** (Up to $390.00/month for 12 months).

Registrations:

- ☑Quality Assurance Solutions, LLC is registered as a Women/Minority Business Enterprise (WMBE) through the Supplier Clearinghouse for the Utility Supplier Diversity Program of the California Public Utilities Commission (Commission General Order 156, Certificate #VON 9KS00004).
- ☑Quality Assurance Solutions, LLC is a registered Small Business Enterprise (SBE) as of November 2006 (REF# 0043800/SB APP 20071120093403). The SBE registration meets eligibility standards as defined by the U.S. Department of Transportation, CFR 49, Part 26, as amended.
- ☑Quality Assurance Solutions, LLC is registered in California as a State Minority-Owned Business Enterprise (SMBE) and Woman-Owned Business Enterprise (SWBE). The SMBE and SWBE registration meets eligibility standards as defined by CFR, Title 49, Part 23 (#36540).

If this quotation is acceptable, you may sign the acceptance below and send it to ☑Quality Assurance Solutions, LLC as a letter contract for the scope and proposed fees. You can e-mail the executed agreement to DLawver@QASolutions-LLC.com. You will receive the final executed copy for you records within the same business day. The pricing, terms, and conditions are valid until June 30, 2022.

Respectfully Submitted,
☑Quality Assurance Solutions, LLC

Diane Lawver
President/Owner

Terms and Conditions
Effective July 1, 2021 to June 30, 2022

☑ **Quality Assurance Solutions, LLC** shall perform the services outlined in this agreement for the stated fee in the attached quotation.

1. **Fee:**
   The total fee, except stated lump sum, shall be understood to be an estimate, based upon a Scope of Services, and shall not be exceeded without written approval of the Client. Where the fee arrangement is to be on an hourly basis, the rates shall be those on the schedule of charges.
2. **Schedule of Charges (See attached Services)**
   Any required services not specified in the attached, shall require a new quotation.
3. **Expenses**
   Should travel be required, it will be billed at the current government rate for mileage or actual incurred expenses. Receipts will be submitted with the final billing upon request.
4. **Billings Payments**
   Invoices will be submitted monthly for services and are due when rendered. Invoice shall be considered PAST DUE if not paid within 30 days after the invoice date and ☑Quality Assurance Solutions, LLC may, without waiving any claim or right against Client and without liability whatsoever to the Client, terminate the performance of the service. A service charge will be charged at 1.5% (or the legal rate) per month on the unpaid balance. In the event any portion of an uncontested account remains unpaid 90 days after billing, the Client shall pay the cost of collection, including reasonable attorneys' fees.
5. **Indemnification**
   The Client shall indemnify and hold harmless ☑Quality Assurance Solutions, LLC against any and all claims, damages, losses and expenses (including reasonable attorneys' fees) arising out of or resulting from the performance of the services, provided that any such claims, damage, loss or expense is caused in whole or in part by the negligent act or omission and/or strict liability of the Client, anyone directly or indirectly employed by the Client (except ☑QA Solutions, LLC) or anyone for whose acts any of them may be liable. The Consultant shall not incur liability of any kind for the Client sharing work product or information gleaned from projects contracted with ☑Quality Assurance Solutions, LLC.
6. **Access to Site**
   Unless otherwise stated, ☑Quality Assurance Solutions, LLC will have access to the site for activities necessary for the performance of the services. ☑Quality Assurance Solutions, LLC will take precautions to perform work in accordance with client EH&S requirements.
7. **Risk Allocation**
   In recognition of the relative risks, rewards and benefits of the project to both the Client and ☑Quality Assurance Solutions, LLC, the risks have been allocated so that the Client agrees that, to the fullest extent permitted by law, ☑Quality Assurance Solutions, LLC's total liability to the Client, for any and all injuries, claims, losses, expenses, damages or claim expenses arising out of this agreement, shall not exceed the total amount of ☑Quality Assurance Solutions, LLC's fee or other amount agreed upon when added under Special Conditions.
8. **Termination of Services**
   This agreement may be terminated at-will upon 10 days written notice by either party. In the event of termination by either party, the Client shall pay ☑Quality Assurance Solutions, LLC for all services, rendered to the date of termination, all reimbursable expenses, and reasonable termination expenses.
9. **Applicable Law**
   Unless otherwise specified, agreement shall be governed by the laws of the principal place of business of ☑Quality Assurance Solutions, LLC
10. **Confidentiality**
    In addition, all information disclosed or otherwise gleaned from the business relationship between ☑Quality Assurance Solutions, LLC and its clients shall be protected as proprietary information and not disclosed to outside parties. The Client shall not share training material outside of its organization without written approval by the Consultant.

Charges and Conditions/Quotation Accepted by:

Approved _____ **Date:** _____

Ms. Diane Lawver _____ **Date:** _____

Operations and Maintenance
Infoshare Group
Report to BACWA Board

Committee Meeting on: 2/24/2021
Executive Board Meeting Date:05/21/2021
Committee Chairs: Kevin Dickison and Joaquin Gonzales

Committee Request for Board Action: None

10 attendees representing 8 member agencies

Round Table Discussion – Adjusting to COVID

Agencies discussed the ways they have adapted procedures as a response to COVID. This is an ongoing challenge, as rules and best practices continue to change.

Staffing Schedules

- All agencies reported changes to staffing schedules to have fewer staff on-site at any given time. More staff are working on weekends, or shifts are spread out throughout the day.
- Some agencies split staff into cohorts that do not interact with one another (i.e., Team A and Team B), particularly toward the beginning of the pandemic.
- Agencies have been contacting retirees or staffing firms (e.g., waterTALENT) to ensure staffing reliability in case operators have to quarantine.
- Agencies have spread staff out physically by adding work trailers, or maximizing use of field sites located away from the main office (if available).
- Handling construction during the pandemic has been particularly challenging, especially if engineering teams are not working on-site.

Safety Precautions

- Plants have limited site access and implemented screening procedures, though the details differ by agency.
- Some, but not all, agencies reported closing or reconfiguring break rooms.
- Ride-sharing at work is restricted or not allowed. One agency reported that the inability to share vehicles prompted purchasing more electric carts to use at the plant.
- Implementing enhanced cleaning protocols have been a challenge, since it is time-consuming work. Operators have had to chip in with cleaning.

Recruiting New Staff

- Interviews have been shifted to Zoom, at least for first-round interviews. Some final-round interviews are being conducted in large conference rooms or Board rooms. Initially this was riddled with technical problems, but it has become smoother over time.
- Many agencies offer interviewees the ability to use a room on-site to allow interviewees to overcome challenges with conducting interviews at home (e.g., interruptions, internet access).
- COVID has made it difficult or impossible to conduct practical skills-testing during interviews.

Training and Testing

- Operator training and certification has been a significant COVID-related challenge.
    - Fewer operators are on shift together, which restricts the ability to conduct in-person training, and also makes it take more time.
    - Operator certification was a concern because routine paper testing had been temporarily suspended due to COVID. The State Water Board recently announced a shift to year-round, computer-based testing, which mitigates this concern.
    - Certification is important for promotions and advancement.
    - One agency reported that apprenticeship programs were temporarily suspended.
- Although training and certification suffered in 2020, many of the kinks have been worked out, and improvement is expected in 2021. The next puzzle to solve will be how to conduct group training when tests are offered on a rolling basis.

Transitioning Back to Normal

At least one agency has already announced that staff will not continue remote work when the pandemic ends; all staff will return to the office. Others have not yet announced a decision.

Ideas for future meetings

Poll members; Procedures for changing SCADA screens used for operations

Next Meeting: May 26th, 2021, virtual meeting format.

Permits Committee –
Report to BACWA Board

Permits Committee Meeting on: April 13, 2021
Executive Board Meeting Date: May 21, 2021
Committee Chair: Mary Lou Esparza, CCCSD

Committee Request for Board Action: None

34 attendees by teleconference, representing approximately 20 member agencies.

Committee Leadership

- Chris Dembiczak has agreed to serve as committee chair beginning in August. The committee is recruiting for a new Vice-Chair.

PFAS Regional Study

- Laboratory analysis by SGS Axys is nearly complete for Phase 1 of the PFAS regional study. Preliminary results were shared with the RMP's Emerging Contaminants Work Group on April 12th. Committee members requested that SFEI present Phase 1 study findings and share the draft report with the committee when it is completed, so that the committee can provide feedback.

Nutrients

- Results of the nutrient load planning implementation survey were shared with the committee.
- The Nutrient Management Strategy document review completed by M. Connor and C. Werme is available for use by committee members.
- Committee members were invited to attend the Webinar series on uncertainty in numerical model applications and to submit questions through BACWA staff.

Update on Toxicity Provisions

- BACWA has submitted revised comments on draft language for implementation of the Statewide Toxicity Provisions in Region 2. The proposed surveillance monitoring frequency for deep water dischargers is 2/year, which may be performed concurrently with routine monitoring at the Instream Waste Concentration. BACWA has requested a reduced surveillance monitoring frequency for medium (<5 MGD) and small (<1 MGD) deep water dischargers.
- The toxicity provisions are expected to go into effect in the second half of 2021. The SWRCB has not yet submitted the provisions to the Office of Administrative Law.

Climate Change Resiliency Survey Update

- Shortly after the meeting, the Regional Water Board released the final Climate Change survey for Region 2 POTWs. Responses are due July 1. BACWA will be releasing sample responses from 5 agencies soon.

Chlorine Residual Basin Plan Amendment

- The basin plan amendment is tentatively scheduled for adoption at the May 18th State Water Board meeting. BACWA continues to advocate for a blanket permit amendment to accelerate implementation of the amendment.

Triennial Review

- The 2021 triennial review of the San Francisco Bay Basin Plan will be kicking off soon. Regional Water Board staff are preliminarily proposing to include chronic toxicity dilution credits for shallow water dischargers, which may be discussed further at the June permits committee meeting.

Next BACWA Permits Committee Meeting: June 8, 2021, 12:30 PM – Subject to change in case of conflict with CWEA annual meeting

Laboratory Committee – Report to BACWA Board

Laboratory committee meeting on: April 20, 2021
Executive Board Meeting Date: May 21, 2021
Committee Chair: Dan Jackson (Union Sanitary District)

Committee Request for Board Action: none

70 attendees via Zoom. Attendees included about 45 members representing 31 BACWA member agencies, 7 guest speakers, and about 15 guests from CVCWA.

TNI Workshop

The committee held a workshop to discuss resources for members implementing 2016 TNI standards as required by the state's Environmental Laboratory Accreditation Program (ELAP). Individual speaker updates are shown below. Overall themes from the workshop and discussion included:

- Implementing the TNI standard takes a considerable effort, but in the end it is worth it!
- Labs should take a shot at implementing the TNI standards in-house before hiring a consultant, as the effort involved will help the lab determine what, if any, scope of work needs to be completed by a consultant.
- When tackling TNI implementation, start with the quality manual and fill out as much as possible, but don't start with Section 4.1 – circle back to those later.
- Small labs tend to be challenged by lack of resources, while large labs tend to be challenged by the slow pace of organizational change.
- Labs that perform drinking water methods (such as for recycled water) will likely require an on-site assessment. Other wastewater lab assessments can be virtual, unless the lab has sophisticated technology.

Jerry Parr, TNI & Jacob Oaxaca, ELAP: Resources for Labs: Training, Templates, and Mentorship

This presentation covered:

- Tools and resources available on the TNI website (https://nelac-institute.org/), including guidance documents, checklists, standard interpretation requests, a quality manual template, and a list of consulting firms for laboratories seeking accreditation.
- An explanation of proficiency testing reporting limits.
- Information about the newly launched, nationwide **TNI Mentor Initiative**. Laboratories can sign up to be part of the program by filling out the TNI mentor questionnaire online and should note on the form that they are a municipal wastewater laboratory.
- Information about upcoming conferences, including:
    - The ELAP Conference scheduled for June 1-3, 2021
    - The 2021 Environmental Measurement Symposium to be held August 2-12, 2021, which will have a special session on the 2016 TNI standard.

Panel Discussion – California Municipal Labs and the TNI Standard – Finding a Guide

The panel included three presentations:

- Duncan Millar and Tony Francis of International Accreditation Service (IAS) presented "Five Things You Need to Know about IAS Accreditation." IAS provides assessments , gap analysis, and training around the world, but does not directly provide consulting assistance to labs. IAS can provide a no-cost, no-obligation certification timetable with action items if you provide your current accreditation expiration date.
- Kathryn and John Gumpper of ChemVal Consulting presented "Two Keys to Success." ChemVal can provide assistance with quality system and SOP development, internal audits, and assessments. They stressed the importance of reading standards many, many, many times.
- Ken Brown from the City of Escondido presented "Implementing the TNI Standard," explaining how the City's lab successfully implemented the TNI standard, emphasizing the aspects of organizational change and staff culture. Implementing the TNI standard in a large laboratory require leadership and communication about the goal: improved data quality.

Next meeting: June 8, 2021, 10 AM – 12 PM

Collection Systems Committee
Report to BACWA Board

Collection Systems Committee Meeting: 05/13/2021
Executive Board Meeting Date: 05/21/21
Committee Chair: Andrew Damron (Napa San)

Committee Request for Board Action: None

41 attendees, representing 26 member agencies.

Drought Update

The committee discussed the impacts of the recently-declared drought emergency. Members noted the following impacts so far:

- Marin Municipal Water District is proposing to ban the use of potable water for sewer hydro-flushing, which means that cleaning crews have to fill up with recycled water. This is problematic for small agencies that use contractors for cleaning, and for agencies that are not located near any recycled water supply points (purple hydrant or treatment plant). It is also problematic because recycled water accelerates wear and tear on the cleaning truck's pumps. Screens and filters will have to get cleaned more often, too.
- One agency reported switching to more mechanical cleaning in lieu of hydro-flushing, but costs for steel parts (like blades) has also increased recently.
- One agency reported coordinating with the water department to fill up their sewer cleaning trucks using hydrants that need to be flushed anyway to maintain potable water quality.
- Several agencies use well water for filling their trucks.
- BACWA's Executive Director noted that DWR is proposing new water use efficiency regulations, which will continue the trend of increasing influent strength.

Leadership

The committee is searching for a new vice chair.

SSS WDR Update

The committee discussed the Informal Staff Draft Sanitary Sewer Order released in February by the State Water Board, with the goal of obtaining comments to pass on the team preparing a markup of the draft order. The markup will be shared soon, when it is completed. The following comments were noted:

- Exfiltration – The order should not be set up with the presumption that exfiltration is happening. Exfiltration should have to be "demonstrated" before it is subject to reporting requirements or enforcement. Unlike regular spills, there is an investigation period that needs to happen between suspecting and confirming a potential problem. There was concern that agencies would have to be in a position of proving a negative (no exfiltration), which is difficult, especially since some areas have combined septic and sewerage.
- Exfiltration – Surveilling for possible exfiltration is already included with the other resiliency requirements.. For example, exfiltration is already included in Section 7.1 regarding bacterial-related impairments. The general feeling was that existing programs are able to provide sufficient information on defects that could lead to exfiltration; additional surveillance is not needed.
- Category 4 SSOs should not be reported in CIWQS; allowing only certain "high-performing" agencies this privilege will result in inequitable data quality from around the state.
- Most agencies use the current 11-element SSMP outline, but some agencies have enhanced requirements due to enforcement orders, so there needs to be flexibility to use a different outline if needed.
- There was strong support for a 2-year / 2-year / 6-year audit and SSMP cycle.
- Audits – the due date trigger should be completion of the SSMP, plus ~3 months to get it into CIWQS.
- There was strong support for re-starting the clock with each SSMP update, because the current system often triggers the need for updates sooner than 5 years.
- There was support for the idea that the new order doesn't require re-certification for major changes to the SSMP, and only calls out putting changes in the change-log.
- Regarding stormwater and water utility coordination, there was a desire to have the language focus more on emergency operations. The reference to "Daily . . . operation and maintenance" is unclear.

Next Collection System Committee Meeting

Thursday, August 19th, 10 AM

Executive Director's Report to the Board

April 2021

NUTRIENTS:

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

- Discussed NMS issues with Science Manager
- Attended quarterly NBS contract management group meeting 4/9
- Attended 4/23 Planning Subcommittee meeting, drafted and distributed meeting notes
- Planned and hosted 4/28 NST meeting, including presentation and polls
- Reviewed and commented on SOW for data analysis with HDR. Issued notice to proceed.
- Discussed NMS and nutrient permitting issues with individual Executive Board members and other members of the BACWA community
- Hosted NTT/SFEI meeting to review NMS reviewer Task 1 deliverable 4/28
- Participated in WRF Nutrient Removal by Other means webinar 4/15
- Attended uncertainty modeling workshop planning meetings 4/9, 4/12, and 4/19, and uncertainty workshops, 4/15 and 4/21

EXECUTIVE BOARD MEETING AND SUPPORT

- Edited minutes and action items from 3/19 Executive Board meeting
- Worked with BACWA staff to plan and manage 4/16 Executive Board meeting
- Conducted the Executive Board meeting agenda review with the BACWA Chair
- Prepared for and participated in 4/2 joint meeting with R2 Water Board
- Continued to track all action items to completion

COMMITTEES:

- Prepared presentation and hosted 4/22 Managers Roundtable meeting
- Participated in 4/7 BAPPG meeting, and drafted Board report
- Met with CASQA and CVCWA to discuss collaboration on pesticides
- Updated baywise veterinary information page

REGULATORY:

- Met with SWB and CASA on PFAS next steps, 4/22
- Met with RPM, RMP staff, and R2 staff to discuss AMR transition and sustainable CECs funding, 4/27

FINANCE:

- Reviewed the monthly BACWA financial reports, summary, and budget to actual tracking sheet for February 2020
- Developed FY22 Budget Workplan
- Worked with AED to finalize proposed FY22 budget for packet.
- Reviewed and approved invoices

COLLABORATIONS:

- Participated in Estuary Blueprint meeting on Recycled Water Actions 4/2
- Participated in WW/NGO PFAS Workgroup 4/28
- Participated in SFEI RMP Emerging Contaminants Workgroup meeting, and prepared introductory presentation on R2 PFAS study 4/12-4/13
- Attended CASA RWG meeting on 4/15
- Participated in CASA PFAS workgroup meeting 4/20
- Attended CASA Microplastic Workgroup Meeting on 4/29

ASC

- Reviewed materials sent via email by ASC ED
- Participated in ASC Board meeting, 4/23

BABC:

- Attended meeting on 4/1 and developed meeting summaries

BACC:

- Participated in bid review and recommendation meetings
- Developed BAR to oversee BACC legal reserve fund

BACCWE

- Set up BACCWE email account

ADMINISTRATION:

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

MISCELLANEOUS MEETINGS/CALLS:

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

Board Calendar

June 2021 – August 2021 Meetings

DATE	AGENDA ITEMS
June 18, 2021 Online Meeting 9-1pm	**Approvals & Authorizations:** • Pesticides/BAPPG support contract • FY22 Contracts **Policy / Strategic Discussion:** • PFAS Discussion • Triennial review of basin plan **Operational:**
July 16, 2021 Online Meeting 9-1pm	**Approvals & Authorizations:** • **Policy / Strategic Discussion:** **Operational:** • NMS Payment • BACC Wrap-up meeting
August 20, 2021	
Sept 17, 2021	
October – 28 & 29th 2021, Pardee	
November 19, 2021	
December 17, 2021	
January 21, 2022	
February 10, 2022 – Annual Meeting	

BACWA ACTION ITEMS

Number	Subject	Task	Responsibiity	Deadline	Status
	Action Items from April 2021 BACWA Executive Board Meeting		**resp.**	**deadline**	**status**
2021.4.35	PFAS Phase I results and discussion of Phase II	Provide timeline to agencies	ED	6/30/2021	pending
2021.4.36	Annual meeting schedule for 2022	Send survey	ED	4/30/2021	complete
2021.4.37	BAAQMD Engagement	Prepare draft letter for BAAQMD Board of Directors regarding BACT determination	RPM \ ED	5/21/2021	pending
	Action Items Remaining from Previous BACWA Executive Board Meetings				
2019.7.05	Sewer Rate Survey	Post as Google Sheet, and publicize update	RPM	4/30/2021	complete

FY21: 35 of 37 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

April 2021

BACWA BULLETIN: Completed and circulated April 2021 Bulletin; began preparation of May Bulletin.

CLIMATE CHANGE: Collated responses from climate change survey "test drivers" and distributed to BACWA committees.

NUTRIENTS: Attended modeling uncertainty webinars; Participated in Nutrient Technical Team meeting with SFEI to discuss findings of Nutrient Management Strategy technical reviewer; attended Nutrient Strategy Team meeting; reviewed revised draft scope for analysis of nutrient loading data.

COMMITTEE SUPPORT:

AIR
- Coordinated regarding meeting scheduling and methane management survey.

BAPPG
- Assisted with review and distribution of fipronil comment letter.
- Coordinated with BAPPG leadership, CVCWA, and CASQA regarding pesticides regulatory support contract for FY21-22.

Collection System Committee
- Continued to review Internal Staff Draft of Sanitary Sewer Systems Waste Discharge Requirements (SSS-WDR), including coordination with other CASA members to prepare markup.
- Participated in State Water Board workshop regarding Informal Staff SSS-WDR.
- Coordinated with committee leadership to identify potential BACWA member reviewers.

Laboratory
- Assisted with planning for April 2021 TNI Training session.
- Assisted with moderation of April 2021 TNI Training event and prepared notes.

O&M Infoshare
- Circulated survey to members regarding agenda for May meeting.
- Prepared for outreach to member agencies regarding committee membership.

Permits
- Attended April committee meeting, and prepared notes.
- Prepared draft report with a proposal for evolution of the 2016 Alternate Monitoring & Reporting Program; circulated to BACWA committees and Regional Water Board staff.

Recycled Water
- Provided file-sharing support

ADMINISTRATION/STAFF MEETING – Participated in monthly staff meeting.

BACWA MEETINGS ATTENDED:
Executive Board and Regional Water Board (4/2)
Permits Committee (4/13)
Executive Board (4/16)
Laboratory Committee (4/20)
Nutrient Strategy Team (4/28)

EXTERNAL EVENTS ATTENDED:
Regional Monitoring Program Emerging Contaminants Workgroup (partial) (4/12)
State Water Board SSS-WDR Workshop (4/13)
CASA Regulatory Workgroup (4/15)
CASA Exfiltration Strategy Group (4/19)
Summit Partners and State Water Board PFAS discussion (4/21)
Nutrient Modeling Uncertainty Webinars (4/15, 4/21, 4/28)

Lorien Fono

From: Jared Voskuhl <JVoskuhl@casaweb.org>
Sent: Thursday, May 13, 2021 11:30 AM
Subject: [Regulatory] CASA May 2021 Regulatory Update

Categories: Board Packet

Good Morning,

Please find below updates from April and for May. Our next Regulatory Workgroup meetings will be on Thursday, May 20.

Additionally, the day before, our Collection Systems Workgroup meeting will be on Wednesday, May 19, in conjunction with SCAP's Collection Systems Committee, from 1 – 3p, and our meeting will feature a presentation by SCCWRP's microbiology team on their exfiltration research.

Recent newsletters from March and April are available. Please let us know if you have any problems accessing the hyperlinked resources.

Thank you,
The RWG Team

WATER

Governor Declares Drought, Announces Water Funding, and Sets 5/26 Strategy Meeting
On May 10, the Governor expanded his drought proclamation to additional areas resulting in 41 counties around the state now under a drought state of emergency. In associated action, Governor Newsom proposed a $5.1 billion package of investments for immediate drought response and long-term water resilience, including $1.3 billion for drinking water and wastewater infrastructure, to address immediate, emergency needs, build regional capacity to endure drought, and safeguard water supplies for communities, the economy, and the environment. Jessica Gauger, CASA's Director of Legislative Advocacy and Public Affairs, has provided more details in the most recent edition of CASA Connects. You may also access the state's drought webpage for further information.

Additionally, on May 26, the Administration will host a kickoff meeting for proceedings to update the State Drought Adaptation Strategy, and you may register here.

DWR Releases Draft Revised IRWUS Recommendations – Comments Due 6/4

On May 11, the Department of Water Resources (DWR) formally released recommendations in a draft report for the Legislature to revise the indoor residential water use standards (IRWUS) which were set in 2018 in previous water conservation legislation, AB 1668 and SB 606. DWR unveiled the draft recommendations at a workgroup meeting on 4/22, for which the meeting agenda is here and the DWR presentation is available here. Comments on the draft report are due on June 4, a public workshop will be held on May 21, and further information is available here.

In the draft report, DWR calls for revised targets of 47 gallons per capita per day (gpcd) by 2025 and 42 gpcd by 2030. The current statutory targets are 52.5 gpcd by 2025 and 50 gpcd by 2030 (Water Code § 10609.4 (b)(1)). However, these revised draft standards are based on a qualitative study, and concerns have been expressed about its reliability for basing such stark revisions to the already-low targets in statute.

On May 3, the Clean Water Summit Partners (Summit Partners) (BACWA, CASA, CVCWA, CWEA, and SCAP) met with DWR's IRWUS project team to learn more about the revised standards, the extent of confidence in the revisions' achievability across communities statewide, and how the consequences for the clean water sector were, or were not, accounted for in the proposal.

Since updating CASA members about these developments last month, several resources have been shared that are pertinent for the State's analysis, including the following: 2020 article in Nature by Kurt Schwabe ("Unintended consequences of water conservation on the use of treated municipal wastewater"), 2019 Issue Brief by CUWA (declining flows and water use efficiency), 2019 Report by PPIC (managing wastewater in a changing climate), 2018 analysis by the City of San Diego (reduced flows case study for conservation legislation), 2018 presentation to SCAP (long term trends for TDS in wastewater), 2017 Drought White Paper by CUWA (70 survey responses; 8 utilities interviewed), and a 2014 presentation to CVCWA (drought impacts to POTWs).

Please reach out to Jared Voskuhl with your feedback on this proposal's impact to your agency, and relay any adverse effects you anticipate for your collection systems or treatment plants.

Summit Partners to Meet with SWB Research Team for IRWUS Wastewater Impacts

On May 18 and 19, the Summit Partners will follow-up their meeting with DWR to connect with the State Water Board's team and then their CSU-Sacramento research team, about their modeling of the impacts of IRWUS on the clean water sector. Their analysis is incorporated in DWR's draft report in Section 6 (p. 71 of 93) and Tables 6-1 through 6-3 (pp. 75 – 82 of 93). You may expect to hear more details afterwards about connecting with the researchers as they desire to learn directly from agencies about specific issues for which they have questions. Please let Jared Voskuhl know if you are particularly interested in speaking with the CSU team.

SWB Receives Toxicity Cerio Study Update on 5/4 and SAG Meeting Set for 5/14

On May 4, the SWB meeting featured an Informational Item on the Ceriodaphnia Study that is part of the recently adopted Toxicity Provisions. The presentation featured a SWB staff update to board members on the study's workplan and the initial steps for Task 2 now underway. Multiple clean water representatives provided testimony about the study and its timing to reinforce the importance of addressing the essential questions the study was undertaken to answer, in the time provided before the implementation set for January 2024.

This Friday, on May 14 at 1 PM, the Stakeholder Advisory Group will meet in a closed session to discuss their work and efforts over the coming months as laboratories provide the researcher team with archival materials and records for the analysis of potential variations in results.

Associated to these proceedings, to follow-up to the Expert Panel's initial meeting for the conceptual workplan on March 24, the Expert Panel provided comments and met on April 28 to review SCCWRP's revised workplan (version with redlines), ultimately recommending commencement of only the first part of Task 2 *and* requesting further detailed re-writes of other sections of the revised draft of the workplan. Meeting materials and recordings for all of these proceedings are available here. Please reach out to Jared Voskuhl with questions.

OAH Workshop on 5/28 & Webinar Series Available for Uncertainty in Modeling

On May 28, the San Francisco Estuary Institute (SFEI) and the Southern California Coastal Water Research Project (SCCWRP) are co-hosting a half-day workshop that will be the culmination for their webinar series on uncertainty analyses in modeling ocean acidification and hypoxia (OAH). Over April and May, four experts provided presentations for which the videos and slide decks are hyperlinked and other meeting materials are here, and which included: (1) Marjorie Friedrichs, "Quantifying and Communicating Model Uncertainty: A Chesapeake Bay Case Study," (2) Chris Edwards, "Uncertainty in coastal ocean biological and physical modeling," (3) Samantha Siedlecki, "Forecasting the future of ocean acidification and hypoxic conditions in the Northern California Current system," and (4) John Dunne, "Uncertainties in global projection of biogeochemical change on the US West Coast." CASA hosted an OAH subgroup meeting on May 10 to discuss takeaways from the webinars, and the agenda for it is here. Please reach out to Jared Voskuhl with your questions and feedback on this series.

SWB Hosts Workshops on Informal Staff Draft of SSS WDR

On April 13 and 16, the SWB held two workshops on the Informal Staff Draft of the sanitary sewer system waste discharge requirements (SSS WDR). Recordings are available for the first day and the second day, during which numerous CASA members expertly provided comments on the practical implementation challenges in the draft. While there are numerous issues still to work through, our members were encouraged by the meeting, particularly the fact that SWB staff were receptive to preliminary comments, and the possibility to engage in a stakeholder roundtable process later in the spring to discuss implementation concerns. Please reach out to Jared Voskuhl with your thoughts or questions, and contact Cheryl Mackelvie, CASA's Executive Assistant, to be added to CASA's Collection Systems Workgroup.

SWB and WRCA Hosts Workshops on Draft DPR Framework

On April 22, the State Water Board hosted a workshop on the new framework and draft criteria for direct potable reuse (DPR) regulations in California that were released on March 22. The meeting video is archived here, and written comments on the framework are due by June

25. CASA will be supporting WateReuse California (WRCA) and other stakeholders to provide comments this summer.

Additionally, on April 14, WRCA hosted a webinar on the new framework. The meeting agenda is here, the recording of the presentations is archived here, and you may read the associated principles statement by WRCA. Please reach out to Jared Voskuhl with your feedback and remarks.

Nearly 90% of 2020 Volumetric Annual Reports Submitted by Deadline

On April 30, Volumetric Annual Reports for 2020 were due to the State Water Board. SWB staff reached out appreciatively near the deadline to let us know they received over 650 of the approximate 750 reports due. Following the SWB's December 2018 update to the recycled water policy, the Volumetric Annual Report requires the entry of volumes in acre-feet per month for influent, effluent and if applicable recycled water use. WRCA and CASA had previously submitted comments and worked together with the SWB on the 2020 survey questions, and we will meet with the SWB team in the summer to review the information and work on the 2021 report survey questions to enhance the information collected on uses pertaining to water recycling around the state. If you have any questions about the volumetric reporting, please contact Rebecca Greenwood and the SWB Recycled Water team.

CWSRF 21-22 IUP Released, SWB Workshop Held, and Comments Due May 24

April 22, the SWB released the 2021-22 Intended Use Plan (IUP) for the Clean Water State Revolving Fund (CWSRF), along with revised Guidelines for small community wastewater funding (SCWW). The draft IUP is available for review here. Written comments are due by noon on May 24.

On April 29, the SWB hosted a workshop on the IUP, for which the recording is available here and the presentation is here. A follow-up workshop will be held on May 14, which you may watch here. The State Water Board will consider adopting the CWSRF IUP and revised SCWW Guidelines as early as the June 15 Board Meeting. If you have questions about these items, please reach out to Bobbi Larson.

US EPA Forms New PFAS Council

On April 27, the United States Environmental Protection Agency (US EPA) announced the formation of a new council within US EPA to review and establish best practices for addressing PFAS pollution. The associated memo by Administrator Regan explains who he has selected to serve in order to strategize how to best use US EPA's authorities, expertise, and partnerships to mitigate and reduce pollution from PFAS. Included amongst their actions is one to deliver a multi-year strategy entitled "PFAS 2021-2025 - Safeguarding America's Waters, Air and Land," to provide critical public health protections to the American public by reviewing all ongoing federal and state actions, propose any necessary modifications, and identify new strategies and priorities. The Council is planning to make initial recommendations to Administrator Regan within 100 days of its establishment. Please reach out to Sarah Sapirstein, CASA's Federal Legislative and Policy Analyst, with questions.

CASA Submits Comments on US EPA Draft NPDES White Paper on Water Recycling

On April 30, CASA submitted detailed comments on the draft NPDES permitting White Paper, as part of US EPA's National Water Reuse Action Plan (NWRAP) Action 2.2.6. Previously, on

March 26, US EPA representatives provided an update on this item and released the draft White Paper pertaining to NPDES permitting challenges for recycled water. Previously, a Q&A document accompanied this effort, upon which CASA submitted comments and redlines, and subsequently the substantive Q&A content was folded into the White Paper. Beyond this specific item, in April, US EPA also released this update on the collaborative progress on the NWRAP. Please reach out to Jared Voskuhl with questions or feedback.

CASA Presents to CASQA's TSC Subcommittee on PFAS and Plastics Initiatives

On April 22, the True Source Control (TSC) Subcommittee of the California Stormwater Quality Association (CASQA) held their monthly meeting. The agenda is here, and CASA's Jared Voskuhl provided a brief presentation on various source control related efforts by CASA on PFAS and plastic pollution. If you are interested in participating in CASQA's TSC group, reach out to Richard Watson.

CASQA Quarterly Meeting on 4/15 about Stormwater Capture and Reuse

On April 15, CASQA held their quarterly meeting. This one focused on six different stormwater capture and reuse case studies from around the state. The event agenda is here, and the presentations are available but archived behind a paywall. In the light of recent stormwater presentations related to NWRAP Action 2.3.3, there was particular interest in the presentations from this event. Please reach out to Jared Voskuhl if you attended or have further questions.

SWB STORMS IC Initiates Project to Estimate Volume of Stormwater Captured

From the State Water Board's April Executive Director Report, the SWB's stormwater unit initiated a STORMS IC Phase II project with the goal of evaluating the different methodologies for calculating stormwater capture and use across California and estimating the volume of stormwater captured statewide (Statewide Stormwater Volume Project). STORMS staff assessed the potential statewide calculation methods in collaboration with SCCWRP, as described in their April 2020 report, "Evaluating Potential Methods to Quantify Stormwater Capture." SWB staff currently are working with the Regional Water Boards and local municipalities to further understand how capture estimates vary statewide, and they also are collaborating with the US EPA on Action 5.5 of the NWRAP to assess and build on existing approaches and methodologies to quantify the volumes of water used/reused from key sources (which includes municipal wastewater, stormwater, agricultural drainage, industry process and cooling water, and oil and gas produced water). STORMS staff plan to release an initial survey by July 2021 to evaluate current capture methods and data for the Statewide Stormwater Volume Project and to kickoff of a pilot project to quantify the amount of stormwater captured statewide by early 2022. The next STORMS IC meeting is scheduled for July 1. Please reach out to Jared Voskuhl with questions.

ELTAC Experimental Methods Subcommittee Meeting

On May 6, the Environmental Laboratory Technical Advisory Committee (ELTAC) held another subcommittee meeting to continue their discussion for developing a process for ELAP to accredit non-approved, experimental methods for regulatory purposes. As part of this work, the ELTAC subcommittee is developing a guidance document for laboratories wanting to develop new methods, and for regulatory agencies to evaluate methods prior to requesting ELAP to offer them for accreditation. SWB staff explained via e-mail that this guidance is being created because California is experiencing significant delays in US EPA's development process. The guidance would not replace EPA's existing processes for federally regulated compounds,

though it is intended to assist California state agencies in determining which method would be most appropriate for their specific regulatory needs. The previous meeting recordings, including the first one on March 10, 2021 where their scope is discussed, are available on the Meeting Recordings section of the ELTAC webpage. If you have questions or concerns about these developments, please contact Alma Musvosvi and your ELTAC reps: Sam Choi (Orange County Sanitation District), Sushmitha Reddy (Inland Empire Utilities Agency), and Josie Tellers (City of Davis).

CWQMC Holds Quarterly Meeting on 5/6

On May 6, the California Water Quality Monitoring Council (CWQMC) held its quarterly meeting. Its agenda is here, and it included an update to the Council's 2014 governance document, plus presentations on microplastics and wastewater-based epidemiology. Notably, it was Council Alternate Jared Voskuhl's last meeting, and the first for CASA's Legislative and Regulatory Analyst, Alma Musvosvi, who now will serve as the POTW Alternate. Over the coming months, please stayed tuned for messages from Alma about Council developments and work groups meetings. You may reach her at amusvosvi@casaweb.org.

SWB Releases Agenda for 2021 Water Data Science Symposium

On June 29 – 30, the State Water Board will host its sixth annual Water Data Science Symposium. The preliminary agenda is available here, the event is free, and you may visit this page to register for various segments. The event is coordinated by the CWQMC. Last year's agenda is linked, and video presentations referring to aspects of wastewater operations are itemized and hyperlinked on their time stamp, including: automated data about discharges to surface waters for real time drinking water consumer confidence reports (@ 4:28:45), changes in a SWB methodology for how to statistically quantify non-detection sampling results (@ 5:58:40), research findings from a study of pesticide residues in effluent (@ 6:38:20), an update and overview of the implementation of AB 1755 (open and transparent water data act) (@ 4:30:05), sewershed surveillance & wastewater based epidemiology (@ 4:39:10), drone monitoring of macroalgae (@ 5:19:50), and multiple efforts related to harmful algal blooms (@ 5:19:50 – 5:44:45). Please reach out to Alma Musvosvi with questions or interest.

US EPA Offers Technical Assistance for Integrated Planning

On May 10, US EPA announced partnering with the Environmental Finance Centers (EFC) at the University of Maryland and University of North Carolina to provide municipalities free technical assistance to support components of Element 4 (alternatives analysis) in EPA's 2012 Integrated Municipal Stormwater and Wastewater Planning Framework. The Environmental Finance Centers can evaluate components such as affordability analyses, review implementation schedules, and project sequencing. The EFCs are offering free technical assistance to municipalities between now and August 31, 2021. Once a municipality has identified their relevant Clean Water Act obligations and characterized existing wastewater and stormwater system assets, the EFC's can help (a) assess the affordability of an alternatives analysis for rate payers and the financial health of the municipality, (b) identify viable funding strategies to pay for each alternative, and (c) review schedules and project sequencing to meet Clean Water Act requirements. For more information, please contact Evan Kirk and Ellen Kohler, and here is EPA's website to view current integrated plans they are aware of, past webcast recordings, and other EPA policy documents.

California Financing Coordinating Committee 2021 Virtual Funding Fair

On May 20 and 27, the California Financing Coordinating Committee (CFCC) is virtually hosting their annual funding fair event, which will provide the opportunity to learn more about available grant, loan, and bond financing options for infrastructure projects from federal, state, and local agencies. Water industry professionals and representatives for public works, local governments, and California Native American Tribes should attend. More information about the fair can be found on the event flyer here or visit the CFCC page to learn more.

SWB Agenda Roundup

Here are the recent State Water Board agendas for their meetings on April 6 (dredge & fill, Salton Sea), April 20 (drought planning), and May 4 (cerio study update), plus their upcoming agenda for May 18 (LA river flows report, urban water use report). The Executive Director reports are available for March (toxicity expert panel meeting, volumetric annual reporting, wastewater based epidemiology, 2018 integrated reports, PFAS Phase 4 Order) and April (toxicity study plan, statewide stormwater volume estimation, winery WDR, cooling water intake structures).

Biosolids

CalRecycle SB 1383 Statewide Webinars, Tools, and Guidance

On April 28, CalRecycle Hosted two SB 1383 Statewide Webinars for Non-Local Entities and Local Education Agencies. The recordings will be posted to the website as an implementation resource as soon as the materials are made ADA compliant.

Additionally, on April 29, CalRecycle published the recording and presentation slides from their February 9 webinar training on the use of the SB 1383 Procurement of Recovered Organic Waste Products Calculator Tool. This webinar recording included a demonstration on the use of the Procurement Calculator Tool, followed by a Q&A session. The Procurement Calculator Tool is an optional tool that may be used by cities and counties to assist them in planning and procurement efforts to meet their SB 1383 procurement requirements. The webinar recording, presentation slides, and Procurement Calculator Tool can be found on the SB 1383 Procurement homepage.

Several other tools, guidance, and resources are available on the SB 1383 homepage, including FAQs and Q&As, Detailed Implementation Guidance for Standard Collection Service versus Performance-Based Collection Service, and Detailed Sampling Guidances for (a) Measuring Organic Waste in a Source Separated Organic Collection Stream at Transfer/Processing Facilities and Operations, (b) Measuring Organic Waste in Mixed Waste Organic Collection Stream at Transfer/Processing Facilities and Operations, (c) Measuring Organic Waste Sent to Disposal from Compostable Material Handling Facilities & Operations and In-Vessel Digestion Facilities & Operations, and (d) SB 1383 Organic Waste Collection Service Options.

For any questions about these resources, please email CalRecycle through the SLCP inbox or reach out to Greg Kester.

CASA Meets with New Manager of LCFS Program at CARB
On May 3, Greg Kester met with Cheryl Laskowski, the new Manager of the low carbon fuel standards (LCFS) program at the California Air Resource Board (CARB). Greg provided background on the wastewater sector and how we can help achieve the mandates of SB 1383 via co-digestion. He also voiced concern over the move to electrify all vehicles at the expense of low carbon fuel which may be produced from our biogas. Cheryl reiterated that our involvement in the Scoping Plan Revision will be critical and that she expects CARB to approve the Environmental Justice Advisory Committee (EJAC) at their May meeting with the work on the Scoping Plan to begin shortly thereafter, to be completed by the end of 2022. CARB currently does not have plans to discontinue our RNG in the LCFS program, but realize that the Scoping plan will guide them moving forward. Finally, several carbon neutrality studies have been released which are available, including UC ITS's demand-side study, UCSB's supply-side study, the Governor's ZEV market development strategy, and E3's report to CARB on achieving carbon neutrality. Please let Greg Kester know if you have questions or comments.

CalRecycle Makes Available RDRS Data for 2020
On May 6, CalRecycle released disposal and beneficial reuse data submitted in the Recycling and Disposal Reporting System (RDRS) for all four quarters of Report Year 2020. Stakeholders have had the ability to review jurisdictional disposal using RDRS Public Reports on a quarter-by-quarter basis 30 days after the quarterly submittal deadline for disposal facilities. The reports have been enhanced to allow stakeholders to have the option to view the jurisdictional disposal, summed across all four quarters of the report year. Please navigate your browser to this link to access the RDRS public reports.

A new report has been added. "RDRS Report 7: Statewide Beneficial Reuse Totals by Material Type" shows total tons by beneficial reuse category including alternative daily cover (ADC), alternative intermediate cover (AIC), construction, and landscaping and erosion control and material type statewide for a quarter or for a year summed. Users can filter the data by year, quarter, beneficial reuse category and material type.

Reach out to Greg Kester with questions, or for technical concerns regarding the public reports, please contact CalRecycle.

EPA Biosolids Webinar Series
On April 28, US EPA hosted a webinar as part of their Biosolids series. The presentation covered gravity/settling, floatation, and filtration/screening and the technologies associated with these thickening mechanisms. Learn more about the EPA Biosolids Webinar Series and sign up to receive notifications about future webinars here.

Global Biosolids Market Garners Attention Amidst Growing Water Scarcity
On April 27, an article was published reporting on Fairfield Market Research's analysis of the growing global biosolids market. The article is available here, and you may contact Greg Kester with questions or comments.

EPA's Biosolids Biennial Report No. 8 Q&A
On April 5, Greg Kester shared a Q&A document about the 2018-2019 EPA biennial review released in March, which is available here, under the What's New banner. CASA will continue

to track the development of the risk screening and risk assessment models and the review of them when available. Please let Greg Kester know if you have any questions or comments.

Preprint for Sloan Project Paper on WBE Released
On April 6, the final paper was published on how to maximize the value of wastewater-based epidemiology for SARS-CoV-2 (and other potential pathogens) through communication with health officials. This is the project led by Dr. Sandra McLellan (UW-Milwaukee) and funded by the Sloan Foundation. Please let Greg Kester know if you have any questions or comments.

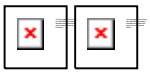
NW Biosolids Library for May – Plant and Soil Pathogens
The research library for May from Dr. Sally Brown and NW Biosolids is available here. This month's topic is pathogens in plants and soil. The introduction to the articles is available here. If you would like the complete articles, please contact Greg Kester.

Dates

May 10	CASA Nutrients Subgroup Meeting (Agenda)
May 10	CASA OAH Subgroup Meeting (Agenda)
May 13	SCCWRP CTAG (Microplastics)
May 14	Toxicity Cerio Study Stakeholder Advisory Group Meeting
May 18	SWB (Agenda)
May 19	CASA and SCAP Collection Systems Meeting

May 20	CASA RWG
May 20	California Financing Coordinating Committee Funding Fair
May 21	DWR & SWB IRWUS Workshop
May 24	SWB CWSRF Comment Deadline
May 26	Governor's Drought Adaptation Strategy Kickoff Webinar
May 27	California Financing Coordinating Committee Funding Fair
May 28	OAH Uncertainties Analysis Workshop
June 1	SWB Meeting
June 4	DWR IRWUS Comment Deadline
June 15	SWB Meeting

June 15	OPC Meeting
June 16	SWB Workshop on Microplastics Methods, Health Effects, and Ecological Impacts (*Tentative*)
June 28	SWB Science Data Symposium
July 01	SWB STORMS IC Meeting



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