



BACWA
BAY AREA
CLEAN WATER
AGENCIES

Executive Board Meeting
AGENDA

Friday, December 20, 2019, 9:00 a.m. – 12:30 p.m.
EBMUD, 2nd Floor Large Training Room
375 11th Street, Oakland, CA

<u>Agenda Item</u>		<u>Pages</u>	<u>Time</u>
ROLL CALL AND INTRODUCTIONS			9:00 AM
PUBLIC COMMENT			9:03 AM
CONSIDERATION TO TAKE AGENDA ITEMS OUT OF ORDER			9:04 AM
CONSENT CALENDAR			9:05 AM
1 November 15, 2019 BACWA Executive Board Meeting Minutes		3-8	
2 December 9, 2019 BACWA Special Executive Board Meeting Minutes		9	
3 September 2019 Treasurer's Reports		10-19	
APPROVALS & AUTHORIZATIONS			9:06 AM
4 <u>Approval</u> : Executive Director Contract for FY20		20-25	
5 <u>Approval</u> : Change Order for the Residual Chlorine Basin Plan Amendment		26-29	
6 <u>Approval</u> : Authorization for the Executive Director to Represent BACWA at a Puget Sound Workshop on Nutrients		30	
7 <u>Approval</u> : Resolution of Appreciation for David Williams			
OTHER BUSINESS - POLICY/STRATEGIC			9:10 AM
8 <u>Discussion</u> : Nutrients			
a. Regulatory			
i. Ocean Protection Council 5-Year Plan and Coalition comments	LINK	31-35	LINK
ii. Scoping and Evaluation Plans Submitted to Water Board	LINK to RW Plan	LINK to NBS Plan	
iii. Group Annual Report			
b. Technical Work			
i. Quality Assurance/Control on SFEI Work Products			
ii. Workshop on Assessment Framework 2.0.		36-38	
c. Governance Structure			
i. NMS Planning Subcommittee Meeting #42 Debrief		39-43	
ii. NMS Steering Committee Meeting #22 Debrief		44-45	
9 <u>Discussion</u> : Risk Reduction Project Update by CIEA			
10 <u>Discussion</u> : Comment Letter on Proposed ELAP Regulations			
11 <u>Discussion</u> : Comment Letter on EPA's Draft National Water Reuse Action Plan		46-48	
12 <u>Discussion</u> : SWRCB Toxicity Provisions Update		49-50	
13 <u>Discussion</u> : Agenda for January 8, 2020 Joint Meeting with Regional Water Board		51	
14 <u>Discussion</u> : Update on Chlorine Residual Basin Plan Amendment			
15 <u>Discussion</u> : Update on SWRCB PFAS Action Plan	LINK		
16 <u>Discussion</u> : RMP Proposal for POTW CECs Studies for FY21		52-60	
OTHER BUSINESS - OPERATIONAL			10:45 AM
17 <u>Discussion</u> : Annual Meeting Planning		61	
18 <u>Discussion</u> : Arleen Navarret Award Announcement		62-65	
19 <u>Discussion</u> : Solano County Biosolids Report		66-75	
20 <u>Discussion</u> : Recognition of CASA's Retiring Executive Director		76-78	
21 <u>Discussion</u> : Interim Support for new BACWA Executive Director			
22 <u>Discussion</u> : 2020 Executive Board Meetings Schedule		79	
REPORTS			12:10 PM
23 Committee Reports		80-83	
24 Member Highlights			
25 Executive Director Report		84-86	
26 Regulatory Program Manager Report		87	
27 Other BACWA Representative Reports			
a. RMP Technical Committee	Mary Lou Esparza		
b. RMP Steering Committee	Karin North; Leah Walker; Eric Dunlavey		
c. Summit Partners	Dave Williams; Lori Schectel		
d. ASC/SFEI	Dave Williams; Eileen White		

	e. Nutrient Governance Steering Committee	Eric Dunlavey; Eileen White; Lori Schectel		
	i. Nutrient Planning Subgroup	Eric Dunlavey		
	ii. NMS Technical Workgroup	Eric Dunlavey		
	f. SWRCB Nutrient SAG	Dave Williams		
	g. NACWA Taskforce on Dental Amalgam	Tim Potter		
	h. BAIRWMP	Cheryl Munoz; Linda Hu; Dave Williams		
	i. NACWA Emerging Contaminants	Karin North; Melody LaBella		
	j. CASA State Legislative Committee	Lori Schectel		
	k. CASA Regulatory Workgroup	Lorien Fono		
	l. ReNUWit	Jackie Zipkin; Karin North		
	m. RMP Microplastics Liaison	Artem Dyachanko		
	n. Bay Area Regional Reliability Project	Eileen White		
	o. WaterReuse Working Group	Cheryl Munoz;		
	p. San Francisco Estuary Partnership	Eileen White; Dave Williams		
	q. CPSC Policy Education Advisory Committee	Coleen Henry		
	r. California Ocean Protection Council	Lorien Fono		
	s, Countywide Water Reuse Master Plan	Karin North		
	t. Bay Area Chemical Consortium	Dave Williams		
28	SUGGESTIONS FOR FUTURE AGENDA ITEMS			12:27 PM
	NEXT MEETING			12:28 PM
	The next regular meeting of the Board is scheduled for February 21, 2020 from 9:00 am to 12:30 pm at SFPUC, 13th Floor, Hetch Hetchy Room, 525 Golden Gate Ave, San Francisco, CA.			
	Note: Annual Holiday luncheon will immediately follow the conclusion of the Board Meeting			
	ADJOURNMENT			12:30 PM



Executive Board Meeting Minutes

November 15, 2019

ROLL CALL AND INTRODUCTIONS

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); Amy Chastain (SFPUC).

Other Attendees:

<u>Name</u>	<u>Agency/Company</u>
David Williams	BACWA
Lorien Fono	BACWA
Tom Hall	EOA
Ian Wren	SFEI
Greg Norby	SFPUC
Jennie Pang	SFPUC
Eric Dunlavey	San Jose
Justin Waples	Central Contra Costa Sanitary District
Lorrie O'Neill	BACWA
Sebastien Tilman	ReNUWit
Jim Grayden	Woodard & Curran
Ritika Kakker	Woodard & Curran
Fammary Saephan	APAFSS

PUBLIC COMMENT

None.

CONSIDERATION TO TAKE AGENDA ITEMS OUT OF ORDER – The Executive Director asked if anyone wished to take an item out of order or if any BACWA Representative wished to present a report or request BACWA direction on an issue out of order. No item was requested.

CONSENT CALENDAR

1. October 18, 2019 BACWA Executive Board Meeting Minutes – The approved minutes will be posted on the BACWA website.

Consent Calendar item 1: A motion to approve was made by Jackie Zipkin and seconded by Eileen White. The motion was approved unanimously.

2. July 2019 Treasurer's Reports and Financial Summary

Consent Calendar item 2: *A motion to approve was made by Jackie Zipkin and seconded by Eileen White. The motion was approved unanimously.*

APPROVALS & AUTHORIZATIONS

3. Approval: Adoption of FY19 BACWA Annual Report – A Board Action Request was included in the Packet. The Executive Director gave an overview of the report.

Item 3: *A motion to approve was made by Greg Norby and seconded by Eileen White. The motion was approved unanimously.*

4. Approval: FY19 Audit Report – A Board Action Request was included in the Packet. The Executive Director gave an overview of the report.

Item 4: *A motion to approve was made by Amit Mutsuddy and seconded by Eileen White. The motion was approved unanimously.*

5. Approval: Bureau of Reclamation WaterSMART Grant – A Board Action Request was included in the Packet. The request was retracted due to grantee not completing the grant requirements in time for submittal.

Item 5: *No motion to approve was made due to the retraction of the request.*

OTHER BUSINESS-POLICY/STRATEGIC

Agenda **Item 6** – Discussion: Nutrients

a. Regulatory

- i. Nature Based Solutions Study update – SFEI gave a presentation summarizing the Scoping and Evaluation Plan, which will be submitted by the December 1 deadline. It should be completed and the final to BACWA by November 22 for submittal by November 27 (the Wednesday before Thanksgiving). Next CMG meeting is January 17 at San Leandro WPCP. To be presented at the January 8 Joint Meeting with the Water Board.
- ii. Briefing on EPA Nutrients Survey – EPA has developed a voluntary survey to get more information about the state of nutrient treatment in the country, as well as to explore the potential for process optimization for nutrients. NACWA hosted a webinar outlining the issues agencies should consider when deciding whether to participate in the survey. The survey is to be filled out by November 26. EPA will compile results. If not enough returns, EPA may make it mandatory to fill out the survey. The HDR report is a good source for data for BACWA members who plan to participate.
- iii. Discussion of Key Questions Regarding the 3rd Watershed Permit – The Water Board is developing a vision statement on the next Watershed Permit. BACWA will wait until after the Joint Meeting with the Water Board to formulate questions.

- iv. Draft Scope and Evaluation Plan for the Recycle Water Evaluation – Updated survey for information to be presented at the January 8 Joint Meeting with the Water Board by HDR.
 - v. Ocean Protection Council’s 5-Year Plan – Adoption of the Plan has been postponed until February; comments now due by December 13. The concept behind the Hertzberg bill on full recycling of coastal discharges has made its way into the draft Plan, and CASA quickly submitted a comment letter and asked for an extension to comment. BACWA agreed to co-sign the CASA letter. BACWA will place a notice in the monthly Bulletin recommending individual agencies to write comment letters.
- b. Technical Work
- i. Debrief of Assessment Framework Workshop – SFEI has a comprehensive hydrodynamic/biogeochemical model of the Bay. The Water Board supports an approach of preventive intervention which will consider costs, risks, and probability in the decision to set trigger levels for additional actions to help ensure the Bay does not become impaired for nutrients. The Water Board also supports flexibility in the Basin Plan. The next meeting for the Assessment Framework Workshop is scheduled for November 18.
 - ii. Quality Assurance/Control on SFEI Work Products – Rescheduling the NMS Science Manager for the December meeting to detail SFEI’s QA/QC methods and staffing concerns. Following the December presentation BACWA will consider if an independent reviewer to help ensure POTW interests are being considered would be appropriate. BACWA also requested to place QA/QC, staffing, succession plan, and modeling on the agenda for the next NMS Steering Committee meeting on December 13. The current thinking for the timeframe for completion of the 2nd Watershed Permit Science Plan is 2024.
 - iii. Forum to Provide Update on Nutrient Technologies – ReNUWI is having a workshop on December 10 in New York. The report should be out in March 2020. BACWA will decide whether to host its own forum after their report.
- c. Governance Structure
- i. Planning Committee Meeting #41 Debrief – Regulatory at the January meeting. \$6M HAB-type Projects EPA Grant due by December 10. Proposal should be 15 pages; one page done by January. EPA is focusing more on the Midwest vs. California but says the NMS should apply. There was a question about whether SFEI has the capacity to take on new HABs projects. Put together a proposal; it will have value for future projects. Dave Senn to explain how NMS will coalesce into answering key questions for the next 5 years in the 3rd Watershed Permit.

Agenda **Item 7** – Discussion: Risk Reduction Project Updates by the APAFSS Program Director. BACWA grant is used to educate participants on contaminants in SF Bay fish. Materials will be posted on BACWA’s website. A follow-up presentation will be made to the Regional Water Board staff.

Agenda **Item 8** – Discussion: EPA Reuse Action Plan – The Recycled Water Committee is meeting on Tuesday, November 19 and will decide whether to submit comments. The formal

comment period closes the week of December 9-13.

Agenda **Item 9** – Discussion: Update on SWRCB’s Plans for PFAS and Impact on Wastewater Facilities – Consensus is to not participate in the Federal Water Quality Coalition special PFAS workgroup.

Agenda **Item 10** - Discussion: Draft Agenda for January 8, 2020 Joint Meeting with Regional Water Board Staff – The final agenda will be determined at the December meeting.

Agenda **Item 11** – Discussion: Disposition of IRWMP Remaining Funds - \$15,692 left over of BACWA funds not used. Four options to use or disburse for the next 4-1/2 years. Consensus is to redistribute for use in keeping the website updated and to make the application process more user friendly. Leadership is being transferred to SFPUC.

Agenda **Item 12** – Discussion: Update on Chlorine Residual Basin Plan Amendment – Final responses due November 13 for survey for range of chlorine and SBS use. There was a discussion about the basis for a 0.1 mg/L RL/ML. There are differing opinions about whether to include the bacteriological objectives in the Basin Plan Amendment.

Agenda **Item 13** - Discussion: Update on CEC White Paper – RPM presented on the updates to the draft. The purpose was to show POTW representative participation in CEC studies. RPM to connect with Regional Water Board staff before the January 8 meeting.

Agenda **Item 14** – Regional Monitoring Program Questions Responses. – The State is kicking off its CECs in aquatic ecosystems project, along with the scientific advisory panel. The RMP has been tasked with a data synthesis, including stakeholder interview. The RPM presented proposed responses to interview questions.

Agenda **Item 15** - Discussion: Comment letter on the Proposed ELAP Regulations – TNI comments are due December 20 – formulate by December 18. Focus – 1) Impact on small labs; 2) Enforcement of Due Process – fees enforcement; too much authority with no due process. The Board discussed having the enforcement provisions reviewed by an attorney. Cost - \$2500 is available in the budget for regulatory legal review. Jackie Zipkin to talk to Dan Jackson re: comment letter and whether the legal review of the enforcement provisions is necessary. Dan will be speaking at the hearing. BACWA will have a letter ready to go by the December 20th Board Meeting; letters are due by December 20.

Agenda **Item 16** – Discussion: Debrief on 2019 State of the Estuary Conference – Jackie Zipkin – There was a debrief on the conference, and some of the challenges of having panels with broad representation from different communities.

Agenda **Item 17** – Discussion: Request for Support of Grant Application for Horizontal Levee – A letter of support for Palo Alto is in the packet.

OTHER BUSINESS-OPERATIONAL

Agenda **Item 18** – Discussion: Pardee 2020 Confirmation of Dates – September 24-25, 2020

Agenda **Item 19** – Discussion: Annual Meeting Planning – ED to develop script for Board Members with talking points at least one week in advance and short bios for introduction of panel members. Executive Director informal gathering celebration afterwards. Water bottle – look for more like a Contigo-type; mugs; tumblers? Bring additional examples to December meeting, AED to select/purchase lanyards, name tags, holders.

Agenda **Item 20** - Discussion: CASA Executive Director Recognition – Resolution and plaque to be presented at CASA December meeting by attendee.

Agenda **Item 21** - Discussion: Summit Partners Meeting Debrief – Wait for ReNUWIt – exfiltration discussion.

Agenda **Item 22** – Discussion: Update on Executive Director Recruitment – K&A identified 40-80 potential applicants; interest expressed by four. Applications due by November 25. Interviews scheduled for December 9. Screening of applications set for December 4 from 2-3 pm. Changed to earlier time of 12:30-3 pm.

Agenda **Item 23** – Discussion: Update on Applications for Arleen Navarret Award – Application date extended to November 19 – only two received to date.

Agenda **Item 24** – Discussion: Update on the Asset Management Infoshare Group – New person taking over.

REPORTS

Agenda **Item 25** – Committee Reports – None

Agenda **Item 26** – Member Highlights -

San Jose – Inspectors saying citing on ATZ not complete – not a source. Tentative order – no tox limits – excluded anomalous reports – bumped to monthly from quarterly.

CCCSD – BAAQMD inspecting due to violations. Recruiting for Senior Chemist.

EBMUD – Received Tentative Order

EBDA – Adopted by Commission expires end of year – adoption in process by five.

Agenda **Item 27** – Executive Director Report – Included in the packet

Agenda **Item 28** – Regulatory Program Manager Report – Included in the packet.

Agenda **Item 29 - Other BACWA Representative Reports** – BACWA Representatives were given an opportunity to provide updates. No actions were taken based on the reports.

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- a. RMP-TRC: Mary Lou Esparza, Nirmela Arsem – No report.
- b. RMP Steering Committee: Karin North; Leah Walker; Eric Dunlavey – No report.
- c. Summit Partners: Dave Williams; Lori Schectel – No report.
- d. ASC/SFEI: Eileen White; Dave Williams; Amit Mutsuddy; Karin North – No report.
- e. Nutrient Governance Steering Committee: Eric Dunlavey; Eileen White; Lori Schectel; Jacqueline Zipkin – No report.
 - i. Nutrient Planning Subgroup: Eric Dunlavey
 - ii. NMS Technical Workgroup: Eric Dunlavey
- f. SWRCB Nutrient SAG: Dave Williams – No report.
- g. NACWA Taskforce on Dental Amalgam: Tim Potter – No report
- h. BAIRWMP: Cheryl Munoz, Linda Hu, Dave Williams – No report
- i. NACWA Emerging Contaminants: Karin North, Melody La Bella – No report.
- j. CASA State Legislative Committee: Lori Schectel – No report.
- k. CASA Regulatory Workgroup – Lorien Fono – No report.
- l. ReNUWIt – Jackie Zipkin, Karin North – No Report.
- m. RMP Microplastics Liaison: Artem Dyachenko – No report.
- n. AWT Certification Committee: Maura Bonnarens – No report.
- o. Bay Area Regional Reliability Project: Eileen White– No report.
- p. WaterReuse Working Group: Cheryl Munoz – No report.
- q. San Francisco Estuary Partnership – Eileen White; Dave Williams – No report.
- r. CPSC Policy Education Advisory Committee – Doug Dattawalker – No report.
- s. California Ocean Protection Council – Lorien Fono – No report.
- t. Countywide Water Reuse Master Plan - Karin North; Pedro Hernandez – No report.
- u. CHARG: Coastal Hazards Adaptation Resiliency Group – Jacqueline Zipkin – No report.
- v. BayCAN: Bay Area Climate Adaptation Network - David R. Williams; Lorien Fono– No report.

Agenda **Item 30 - SUGGESTIONS FOR FUTURE AGENDA ITEMS.** None.

ANNOUNCEMENTS: The next regular meeting of the Board is scheduled for December 20, 2019 from 9:00 am to 12:30 pm at EBMUD, 2nd Floor Large Training Room, 375 11th Street, Oakland, California. The BACWA Holiday and Committee Appreciation Lunch will follow at 12:30 pm.

To receive a copy of any materials provided to the Board at a BACWA Executive Board meeting contact Lorrie O’Neill at loneill@bacwa.org.

The meeting adjourned at 1:00 pm.



Executive Board Special Meeting Minutes

December 9, 2019
8:30 a.m. – 3:00 p.m.

EBMUD, 375 11th Street, Oakland, CA

ROLL CALL AND INTRODUCTIONS

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), Amy Chastain (San Francisco Public Utilities Commission - arrived at 11:20 am); Eric Dunlavey (San Jose Alternate)

Others in Attendance: Greg Baatrup (Fairfield Suisun Sewer District); David Williams (BACWA); Kopp & Associates staff.

PUBLIC COMMENT

There was no public comment.

CONSIDERATION TO TAKE ITEMS OUR OF ORDER

No Items were taken out of order.

CLOSED SESSION

The Board adjourned to Closed Session pursuant to Government Code Section 54957 in order to conduct interviews for the Executive Director.

OPEN SESSION

The Board returned to Open Session and reported that the recruiter for the Executive Director had been authorized to negotiate a contract with the top ranked candidate from the interview process.

ADJOURNMENT

The meeting adjourned at 3:00 pm



Bay Area Clean Water Agencies

A Joint Powers Public Agency

Leading the Way to Protect our Bay

December 3, 2019

MEMO TO: Bay Area Clean Water Agencies Executive Board

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

SUBJECT: Third Month FY 2020 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, 2019 through September 30, 2019** (three months of Fiscal Year 2020). 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),
- Water/Wastewater Operator Training (WOT),
- Bay Area Biosolids Coalition (BABC),
- Prop84 Bay Area Integrated Regional Water Mgmt (PRP84)

BACWA Fund Report as Of September 30, 2019

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	1,185,382	4,239	62,450	1,127,170	557,128	570,043
804	LEGAL RSRV	300,000	-	-	300,000	-	300,000
805	CBC	1,926,714	11,810	-	1,938,524	752,116	1,186,408
	SUBTOTAL 1	3,412,096	16,048	62,450	3,365,694	1,309,244	2,056,450
802	BABC	-	113,305	1,039	112,266	-	112,266
810	WOT	322,375	-	3,667	318,708	-	318,708
	SUBTOTAL 2	322,375	113,305	4,706	430,974	-	430,974
811	PRP84	161,590	-	(2,859)	164,449	-	164,449
	SUBTOTAL 3	161,590	-	(2,859)	164,449	-	164,449
	GRAND TOTAL	3,896,062	129,353	64,297	3,961,117	1,309,244	2,651,874

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	1,185,382	4,239	62,450	1,127,170	21,901	1,149,071	1,124,995	24,076	1%	-	-	priority # 3 for allocation
804	LEGAL RSRV	300,000	-	-	300,000	-	300,000	-	300,000	13%	-	-	priority # 1 for allocation
805	CBC	1,926,714	11,810	-	1,938,524	-	1,938,524	-	1,938,524	86%	-	-	priority # 2 for allocation
	SUBTOTAL 1	3,412,096	16,048	62,450	3,365,694	21,901	3,387,595	1,124,995	2,262,600	100%	-	-	
802	BABC	-	113,305	1,039	112,266	-	112,266	112,266	-	0%	-	-	pass-through funds, no allocation
810	WOT	322,375	-	3,667	318,708	-	318,708	318,708	-	0%	-	-	pass-through funds, no allocation
	SUBTOTAL 2	322,375	113,305	4,706	430,974	-	430,974	430,974	-	0%	-	-	
811	PRP84	161,590	-	(2,859)	164,449	-	164,449	164,449	-	0%	-	-	pass-through funds, no allocation
	SUBTOTAL 3	161,590	-	(2,859)	164,449	-	164,449	164,449	-	0%	-	-	
	GRAND TOTAL	3,896,062	129,353	64,297	3,961,117	21,901	3,983,018	1,720,418	2,262,600	-	-	-	

verification

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

Reconciliation to Trial Balance - accrual basis

Per Report above:

General	16,048
WOT	113,305
PROP	-
subtotal	129,353

Billings-Pending Receipts

4686	Mem Contrib	1,030,275
4687	Transfer	-
4690	Assoc Contrib	-
4696	Other	1,190,434
4731	State Grant	-
4732	Grant Retention	-
subtotal		2,220,709

Trial Balance Revenue Accounts

4411	Interest	(16,048)
4686	Mem Contrib	(1,030,275)
4687	Transfer	(113,305)
4690	Assoc Contrib	-
4696	Other	(1,190,434)
4731	State Grant	-
4732	Grant Retention	-
subtotal		(2,350,062)
Difference		-

BACWA Revenue Report as of September 30, 2019

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	BACWA	0408511	Administrative & General	-	-	-	-	-	-	-	-	
800	BACWA	1011099	BDO Member Contributions	506,774	-	-	-	-	-	-	506,774	
800	BACWA	1011108	BDO Other Receipts	-	-	-	-	-	-	-	-	
800	BACWA	1011109	BDO Fund Transfers	5,100	-	-	-	-	-	-	5,100	
800	BACWA	1011117	BDO- Interest Income from LAIF	20,000	-	-	-	-	2,651	2,651	17,349	
800	BACWA	1011133	BDO Assoc.&Affiliate Contr	184,111	-	-	-	-	-	-	184,111	
800	BACWA	1014251	BDO Non-Member Contr BAPPG	3,876	-	-	-	-	-	-	3,876	
800	BACWA	1014252	BDO Non-Member Contr AIR	6,936	-	-	-	-	-	-	6,936	
800	BACWA	1014511	BDO-Alternative Investment Inc	18,000	-	-	-	1,588	-	-	1,588	
BACWA TOTAL				744,797	-	-	-	1,588	-	2,651	4,239	740,558
805	WQA-CBC	1011099	BDO Member Contributions	675,000	-	-	-	-	-	-	675,000	
805	WQA-CBC	1011108	BDO Other Receipts	1,700,000	-	-	-	-	-	-	1,700,000	
805	WQA-CBC	1011117	BDO- Interest Income from LAIF	-	-	-	-	-	11,810	11,810	(11,810)	
805	WQA-CBC	1014528	BDO-Voluntary Nutrient Contrib	-	-	-	-	-	-	-	-	
WQA CBC TOTAL				2,375,000	-	-	-	-	-	11,810	11,810	2,363,190
TOTAL				3,119,797	-	-	-	1,588	-	14,461	16,048	3,103,749

	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	1011109	BDO Fund Transfers	-	-	-	-	113,305	-	-	113,305	(113,305)
802	BABC	1011099	BDO Member Contributions	-	-	-	-	-	-	-	-	-
BABC TOTAL				-	-	-	-	113,305	-	-	113,305	(113,305)

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			-	-	-	-	-	-	-	-	-
PROP TOTAL				-	-	-	-	-	-	-	-	-

Grand Total				3,119,797	-	-	-	114,892	-	14,461	129,353	2,990,444
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BACWA Revenue Report as of September 30, 2019

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	Prop84BayAreaIntegRegnWtrMgmt	1011117	BDO- Interest Income from LAIF	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegnWtrMgmt	1011142	Administrative Support	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegnWtrMgmt	1011691	Water Efficient Landscape Reba	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegnWtrMgmt	1011702	Sears Point Wtind & Wtrshd Res	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegnWtrMgmt	1011705	Regional Green Infrastructure	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegnWtrMgmt	1011706	Hacienda Ave Green St Improvem	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegnWtrMgmt	1011707	WQ Improve Flood Mgmt & EP	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegnWtrMgmt	1011911	Stream Restoration w/Schools i	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegnWtrMgmt	1011912	Flood Infrastructure Mapping	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegnWtrMgmt	1012209	Water Efficient LRP	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegnWtrMgmt	1012210	Bay Friendly Landscape TP	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegnWtrMgmt	1012211	Weather Based Irrigation Cntrl	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegnWtrMgmt	1012212	High Efficiency Toilet & UR	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegnWtrMgmt	1012213	High Efficiency Toilet & UI	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegnWtrMgmt	1012214	High Efficiency Clothes Washrs	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegnWtrMgmt	1012215	Napa Co. Rainwater HP	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegnWtrMgmt	1012216	Conservation Program Admin	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegnWtrMgmt	1012218	Stream Restoration in North BD	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegnWtrMgmt	1012219	Flood Infrastructure Mapping T	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegnWtrMgmt	1012220	Stormwater Improvements & PBP	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegnWtrMgmt	1012221	Richmond Shoreline & San PFP	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegnWtrMgmt	1012222	Pescadero Integrated FRAH	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegnWtrMgmt	1012223	Restoration Guidance, San FC	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegnWtrMgmt	1012224	SF Estuary Steelhead MP	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegnWtrMgmt	1012225	Watershed Program Admnrstrn	-	-	-	-	-	-	-	-	-
PROP 84 TOTAL				-	-	-	-	-	-	-	-	-

BACWA Expense Detail Report for September 2019

EXPENSE TYPE	JOB	AMENDED BUDGET	CURRENT PERIOD				YEAR TO DATE				OBLIGATED	UNOBLIGATED
			ENC	PV	DA	JV	ENC	PV	DA	JV		
LABOR												
AS-Executive Director	1011123	207,531	-	-	-	-	190,237	17,294	-	-	207,531	-
AS-Assistant Executive Directo	1011124	100,907	-	-	-	-	82,500	-	-	-	82,500	18,407
AS-Regulatory Program Manager	1011149	137,727	(10,617)	10,617	-	-	114,790	33,921	-	(11,885)	136,826	901
ADMINISTRATION												
AS-EBMUD Financial Services	1011125	41,616	-	-	-	-	41,616	-	-	-	41,616	-
AS-Audit Services	1014512	5,240	-	-	-	-	5,240	-	-	(5,240)	-	5,240
AS-BACWA Admin Expense	1011118	7,803	-	-	187	-	-	-	444	(167)	277	7,526
AS-Insurance	1011126	4,682	-	-	4,696	-	-	-	4,696	-	4,696	(14)
MEETINGS												
GBS-Meeting Support-Annual	1014514	12,000	-	-	-	-	-	-	-	-	-	12,000
GBS-Meeting Support-Exec Bd	1014513	2,601	-	-	-	-	2,378	223	-	-	2,601	-
GBS-Meeting Support-Misc	1014516	5,202	-	-	-	-	-	-	-	-	-	5,202
GBS-Meeting Support-Pardee	1014515	6,242	-	-	856	-	-	-	856	-	856	5,386
COMMUNICATION												
CAR-BACWA File Storage	1014518	1,500	-	-	-	-	-	-	-	-	-	1,500
CAR-BACWA IT Software	1014520	1,750	-	-	-	-	-	-	-	-	-	1,750
CAR-BACWA IT Support	1014519	2,600	-	-	-	-	2,600	-	-	-	2,600	-
CAR-BACWA Website Dev/Maint	1011116	600	-	-	-	-	-	-	-	-	-	600
CAR-BACWA Website Hosting	1014517	750	-	-	-	-	-	-	-	-	-	750
LEGAL												
LS-Executive Board Support	1011110	2,133	-	-	-	-	2,133	-	-	-	2,133	-
LS-Regulatory Support	1011107	2,653	-	-	-	-	2,614	39	-	-	2,653	-
COMMITTEES												
AIR-Air Issues&Regulation Grp	1014253	76,000	-	-	-	-	75,000	-	-	-	75,000	1,000
BC-BAPPG	1011147	100,000	(4,743)	4,743	163	-	38,020	7,980	10,163	-	56,163	43,837
BC-Biosolids Committee	1011101	1,000	-	-	-	-	-	-	-	-	-	1,000
BC-Collections System	1011097	1,000	-	-	-	-	-	-	-	-	-	1,000
BC-InfoShare Groups	1011102	1,000	-	-	638	-	-	-	831	-	831	169
BC-Laboratory Committee	1011103	1,000	-	-	-	-	-	-	-	-	-	1,000
BC-Permit Committee	1011098	1,300	-	-	-	-	-	-	-	-	-	1,300
BC-Pretreatment Committee	1011146	2,000	-	-	3,295	-	-	-	3,295	-	3,295	(1,295)
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	2,500	-	-	-	-	-	-	-	-	-	2,500
CAS-FWQC	1012202	7,500	-	-	-	-	-	-	-	-	-	7,500
CAS-Misc Collaborative Sup	1014521	5,000	-	-	-	-	-	-	-	-	-	5,000
CAS-PSSEP	1011112	-	-	-	-	-	-	-	-	-	-	-
CAS-Stanford ERC	1011969	10,000	-	-	-	-	-	-	-	-	-	10,000
BACWA TOTAL		798,837	(15,359)	15,359	9,836	-	557,128	59,457	20,285	(17,292)	619,578	179,259
BABC												
AS-Regulatory Program Manager	1011149	-	-	-	-	-	-	901	-	-	901	(901)
BDO Contract Expenses	1011143	-	-	-	-	-	-	-	137	-	137	(137)
BABC TOTAL		-	-	-	-	-	-	901	137	-	1,039	(1,039)
TECH SUPPORT												
WQA-CE Addl Work Under Permit	1014254	100,000	-	-	-	-	220,000	-	-	-	220,000	(120,000)
WQA-CE-Technical Support	1011127	52,020	-	-	-	-	32,116	-	-	-	32,116	19,904
WQA-CE Risk Reduction	1014023	20,000	-	-	-	-	-	-	-	-	-	20,000
WQA-CE-Nutrient WS Permit Comm	1014021	2,000,000	-	-	-	-	-	-	-	-	-	2,000,000
WQA-CE-Nature Based Solutions	1015367	500,000	-	-	-	-	500,000	-	-	-	500,000	-
TECH SUPPORT (CBC) TOTAL		2,672,020	-	-	-	-	752,116	-	-	-	752,116	1,919,904
GRAND TOTAL		3,470,857	(15,359)	15,359	9,836	-	1,309,244	60,359	20,423	(17,292)	1,372,733	2,098,124
WOT												
Administrative Support	1011142	-	-	-	3,667	-	-	-	3,667	-	3,667	(3,667)
BDO Contract Expenses	1011143	-	-	-	-	-	-	-	-	-	-	-
		-	-	-	3,667	-	-	-	3,667	-	3,667	(3,667)
GRAND TOTAL (BDO, BABC, CBC, WOT)		3,470,857	(15,359)	15,359	13,503	-	1,309,244	60,359	24,089	(17,292)	1,376,400	2,094,457

BACWA Expense Detail Report for September 2019

DEPTID	DEPARTMENT	EXPENSE TYPE	AMENDED BUDGET	CURRENT PERIOD				YEAR TO DATE				OBLIGATED	UNOBLIGATED	
				ENC	PV	DA	JV	ENC	PV	DA	JV			
811	Prop84BayAreaIntegRegniWtrMgmt	BDO Fund Transfers	-	-	-	-	-	-	-	-	-	-	-	
811	Prop84BayAreaIntegRegniWtrMgmt	Administrative Support	-	-	-	-	-	-	-	-	-	(2,859)	(2,859)	2,859
811	Prop84BayAreaIntegRegniWtrMgmt	BDO Contract Expenses	-	-	-	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegniWtrMgmt	Regional Green Infrastructure	-	-	-	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegniWtrMgmt	Hacienda Ave Green St Improvem	-	-	-	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegniWtrMgmt	Sears Point Wtlnd & Wtrshd Res	-	-	-	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegniWtrMgmt	Bay Friendly Landscape TP	-	-	-	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegniWtrMgmt	Weather Based Irrigation Cntrl	-	-	-	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegniWtrMgmt	High Efficiency Toilet & UR	-	-	-	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegniWtrMgmt	High Efficiency Toilet & UI	-	-	-	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegniWtrMgmt	High Efficiency Clothes Washrs	-	-	-	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegniWtrMgmt	Napa Co. Rainwater HP	-	-	-	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegniWtrMgmt	Conservation Program Admin	-	-	-	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegniWtrMgmt	Flood Infrastructure Mapping T	-	-	-	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegniWtrMgmt	Stormwater Improvements & PBP	-	-	-	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegniWtrMgmt	Richmond Shoreline & San PFP	-	-	-	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegniWtrMgmt	Pescadero Integrated FRAH	-	-	-	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegniWtrMgmt	Restoration Guidance, San FC	-	-	-	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegniWtrMgmt	SF Estuary Steelhead MP	-	-	-	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegniWtrMgmt	Stream Restoration in North BD	-	-	-	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegniWtrMgmt	Watershed Program Admnstrtn	-	-	-	-	-	-	-	-	-	-	-	-
PRP84 TOTAL			-	-	-	-	-	-	-	-	-	(2,859)	(2,859)	2,859

BACWA Treasurer's Report Expenses and Encumbrances
 Period Covering July 1, 2019 through September 30, 2019

Deptid	Total Disbursements	Outstanding Encumbrances
800	62,450	557,128
802	1,039	-
805	-	752,116
TOTAL	63,489	1,309,244
810	3,667	-
TOTAL	3,667	-
811	(2,859)	-
TOTAL	(2,859)	-



BACWA EXECUTIVE BOARD ACTION REQUEST

AGENDA NO.: 4

FILE NO.: 20-27

MEETING DATE: December 20, 2019

TITLE: Approval of the Contract for the New Executive Director

RECEIPT DISCUSSION RESOLUTION APPROVAL

RECOMMENDED ACTION

Approve the contract for Dr. Lorien Fono as the new BACWA Executive Director

SUMMARY

With the pending retirement of David R. Williams, the current Executive Director (ED), the BACWA Board undertook a recruitment for a new ED. A recruiter was hired to conduct the search. Through an open, competitive process, Dr. Lorien Fono was selected to provide ED services under contract. Dr. Fono had been the BACWA Regulatory Program Manager for the last seven years and demonstrated all the skills needed to provide the continuing services to BACWA. An annual fiscal year contract in the amount of \$190,000 was negotiated which will be prorated to cover the ED services starting February 1, 2020 and ending June 30, 2020. The contract provides for 3 one-fiscal year extensions beginning July 1, 2020.

FISCAL IMPACT

The funding for this contract is covered by the line item budget for ED services in the approved FY 20 BACWA budget.

ALTERNATIVES

No other alternatives were considered since ED services are essential for BACWA operations and the selection of Dr. Fono was through a competitive process.

Attachments:

1. Contract
2. Lorien Fono Amendment #3

Approved: _____

**Lori Schectel, Chair
BACWA**

Date: _____

**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

Exhibit A
BACWA EXECUTIVE DIRECTOR

SCOPE OF SERVICES

The Consultant shall serve as the Executive Director of the Bay Area Clean Water Agencies (BACWA), providing professional services, which include, but are not limited to the following:

1. Financial/Administrative Management

- Develop and maintain sound financial practices,
- Prepare an annual budget that implements the Board's goals and objectives,
- Manage contracts to stay within budget,
- Ensure compliance with applicable rules and regulations,
- Oversee BACWA's role as fiscal agent for State and other grants,
- Maintain official records and documents, and ensure compliance with federal, state and local regulations.

2. Board, Committee, and Member Functions

- Organize and facilitate Executive Board meetings,
- Coordinate committees and provide chairs with all necessary support,
- Assist the Executive Board in maintaining beneficial relationships with regulatory agencies,
- Plan and execute the Executive Board fall retreat and the Annual Member Meeting,
- Prepare annual workplan with Executive Board and Committee input,
- Prepare annual report as required by the Joint Powers Agreement,
- Promote active and broad participation by volunteers in all areas of the organization's work.

3. Communication/Representation

- Represent BACWA at key forums including, but not limited to, meetings of the Regional and State Water Boards, Integrated Regional Water Management Plan Coordinating Committee, Aquatic Science Center, Regional Monitoring Program, and the Summit Partners,

- Represent BACWA at two California Association of Sanitation Agencies conferences per year, the National Association of Clean Water Agencies' National Environmental Policy Conference, and any such other conferences authorized, in writing, by the Board Chair on case-by-case basis,
- Maintain and improve the BACWA website,
- Prepare monthly member newsletter,
- Respond to press and public inquiries.

4. Program Management

- Maintain a working knowledge of significant developments and trends in the field,
- Act as a lead in communicating with regulatory agencies on issues of importance to BACWA,
- Prepare, or assist in preparing, comment letters on behalf of BACWA members regarding technical and regulatory issues,
- At the direction of the Executive Board, carry out technical, regulatory, and scientific projects to benefit BACWA members.



BACWA BOARD AUTHORIZATION REQUEST

AGENDA NO.: 5

FILE NO.: 20-28

MEETING DATE: December 20, 2019

TITLE: Authorize execution of an amendment to the agreement with EOA, Inc. for the technical assistance needed to support the Regional Water Board's staff in the adoption of a chlorine residual Basin Plan Amendment.

RECEIPT

DISCUSSION

RESOLUTION

APPROVAL

RECOMMENDED ACTION

Authorize a \$8,500 amendment to the Agreement between BACWA and EOA for technical assistance needed to support the Regional Water Board's staff in the adoption of a chlorine residual Basin Plan Amendment.

SUMMARY

BACWA is providing support to the Regional Water Board for the development of a Basin Plan Amendment (BPA) to replace the 0.0 mg/L chlorine residual instantaneous effluent limit. The goal of the Regional Water Board and BACWA for this effort is to reduce the need for sodium bisulfite dosing (a dechlorination agent) in effluent.

On June 27, 2017 the BACWA Executive Director authorized an agreement in the amount of \$99,500 with EOA, Inc. for the period of July 1, 2017 through December 31, 2017, to develop a scope of work for the technical assistance needed to support the Regional Water Board staff in the adoption of a chlorine residual Basin Plan Amendment. Due to longer than anticipated time to complete the BPA, the agreement has been extended to June 30, 2020. In addition, the Water Board has requested more documentation and assistance than original envisioned in the approved EOA Scope of Work. The BPA is closed to being finalized but EOA has requested an increase in their contract in the amount of \$8,500 to finalize the BPA. The additional work required to complete the BPA and covered by the requested increased is shown in Attachment A

FISCAL IMPACT

The BACWA budget includes a \$52,020 line item for technical support on regulatory issues of which \$32,116 has been encumbered leaving \$19,904. The amendment would be funded under this line item which has adequate funds available.

ALTERNATIVES

1. Do not approve the amendment. This alternative is not recommended because additional effort has been needed to address Water Board issues and without completion of the remaining tasks, the Water Board may put the BPA on hold.

Attachments:

A – Amendment to Agreement

Approved:

Lori Schectel, BACWA Chair

Date:

AMENDMENT NO. 1
TO AGREEMENT BETWEEN
BAY AREA CLEAN WATER AGENCIES and
EOA, Inc. .
FOR
Chlorine Residual Basin Plan Amendment Support

This Amendment No. 1 is made this 20th day of December, 2019, in Oakland, State of California, to that certain agreement of June 27, 2017 by and between EOA, Inc. and the Bay Area Clean Water Agencies, (BACWA) (the "Agreement") in consideration of the covenants hereinafter set forth.

1. BACWA and EOA, Inc., agree to a new contract amount of \$108,000.00 for Chlorine Residual Basin Plan Amendment Support.
2. The scope of work items attached are hereby added to the original Scope of Work.
3. Except as herein expressly modified, the Agreement will remain in full force and effect.

BAY AREA CLEAN WATER AGENCIES

By _____
Lori Schectel, Chair, Executive Board

Date _____

By _____
EOA

Date _____

Scope of Work

As of December 2019, having received one round of comments from the Regional Water Board (RWB) staff on the draft Basin Plan Amendment (BPA) Staff Report the remaining tasks need to be completed in order to finalize the draft BPA:

- Respond to RWB comments on BPA Staff Report package
- Provide RWB requested additional detail on excess sodium bisulfite usage and costs
- Coordinate with RWB on definition of Total Residual Chlorine violation data to include summary table (CIWQS > 0.0 mg/L or Minimum Mandatory Penalties)
- Clarify language regarding how shallow water dischargers are addressed in the BPA
- Present additional MDL/RL information to RWB to support increase in TRC RL from 0.05 to 0.10 mg/L
- Coordinate with RWB to support including TRC RL(s) in NPDES Permits Attachment G instead of BPA
- Assist RWB staff in final changes to Environmental Checklist and CEQA analysis
- Assist RWB staff in preparing for CEQA Scoping meeting



BACWA EXECUTIVE BOARD AUTHORIZATION REQUEST

AGENDA NO.: 6

FILE NO.: 20-29

MEETING DATE: December 20, 2019

TITLE: Authorize the Executive Director to Incur Reimbursable Expenses in Conjunction with a Puget Sound Workshop on Nutrients

RECEIPT DISCUSSION RESOLUTION APPROVAL

RECOMMENDED ACTION

Authorize the Executive Director to Incur Expenses which will be reimbursed to BACWA.

SUMMARY

Similar to the situation in San Francisco Bay, the regulators responsible for water quality in the Puget Sound are monitoring the discharge of nutrient from POTWs and are considering limits for upcoming permits. POTWs that discharge to the Sound are concerned about the potential limits and whether they are scientifically justified. HDR is working with a coalition of POTWs headed by the City of Tacoma. HDR has relayed the approach being undertaken in the Bay Area to developed scientific based regulations and the coalition is interested in hearing first-hand about the Bay Area approach. The City of Tacoma has invited BACWA to attend a workshop on December 18th to engage in a discussion on the Nutrient Management Strategy being employed in the Bay Area and how a similar approach might be pursued in Puget Sound. Previously the Board had supported sharing the experience in the Bay Area with the Puget Sound agencies. This approval authorizes the Executive Director to incur travel expenses on the condition that they will be reimbursed to BACWA by the City.

FISCAL IMPACT

This is a no cost proposal for BACWA since the Executive Director's expenses will be paid by BACWA with reimbursement to BACWA by the City of Tacoma.

ALTERNATIVES

Do not approve the attendance of the Executive Director at the workshop: This alternative is not recommended since there is no cost to BACWA and the attendance of the Executive Director is aligned with the BACWA policy of engaging with sister public agencies and associations in sharing information.

Approved:

Lori Schectel, BACWA Chair

Date: _____



BACWA EXECUTIVE BOARD ACTION REQUEST

AGENDA NO.: 7

FILE NO.: R-20-01

MEETING DATE: December 20, 2019

TITLE: Request for Board Approval of Resolution No. R-20-01

RECEIPT DISCUSSION RESOLUTION APPROVAL

RECOMMENDED ACTION

Approve Resolution No. R-20-01 Resolution of Appreciation for David Williams.

SUMMARY: At the end of January 2020, David Williams is retiring as Executive Director of the Bay Area Clean Water Agencies (BACWA) after seven years with the association. BACWA staff, Executive Board Members, and BACWA members congratulate David on his retirement and wish him well.

FISCAL IMPACT

No fiscal impact to BACWA.

ALTERNATIVES

This action does not require consideration of alternatives.

Attachment: Resolution No. R-20-01

Approved:

Date:

Lori Schectel, Chair
BACWA Executive Board



BAY AREA CLEAN WATER AGENCIES

EXECUTIVE BOARD RESOLUTION NO. R-20-01

RESOLUTION OF APPRECIATION FOR DAVID R. WILLIAMS

WHEREAS, David R. Williams began his tenure as Executive Director of the Bay Area Clean Water Agencies (BACWA) in January 2013.

WHEREAS, Mr. Williams had previously served as a Board Member of BACWA for 20 years representing East Bay Municipal Utility District; and

WHEREAS, Mr. Williams has been a positive change-maker in the wastewater industry over these past thirty years, helping to shape the industry's transition from dischargers to resource recovery facilities; and

WHEREAS, under the able leadership of Mr. Williams as Executive Director, BACWA accomplished significant goals and objectives, including promoting sound science in the development of regulations, ensuring practical regulation for nutrients and contaminants of emerging concern, fostering broad collaboration amongst the membership and regulatory bodies, and successfully managing future financial flexibility for BACWA; and

WHEREAS, under Mr. Williams' leadership, BACWA provided superior service to its membership, bolstered BACWA's reputation as a trusted collaborator regionally, and pursued projects that help members fulfill regulatory requirements and conserve resources while also benefiting the San Francisco Bay and its residents; and

WHEREAS, during his tenure as the BACWA Executive Director, Mr. Williams was dedicated to ensuring that the region's needs and concerns were clearly communicated at regional, state, and national forums; and

WHEREAS, Mr. Williams' attention to detail and project management skills have ensured that BACWA is an excellent steward of its members' ratepayer resources; and

WHEREAS, Mr. Williams' legacy includes support of the Bay Area Consortium for Clean Water Education, a key program educating the next generation of wastewater professionals.

NOW, THEREFORE, BE IT RESOLVED that David R. Williams is hereby commended for his distinguished service and leadership to BACWA during his tenure as Executive Director, resulting in the continued success of BACWA as a high-performance organization committed to serving its member agencies and helping them protect the San Francisco Bay environment.

APPROVED AND ADOPTED this ___ day of December 2019.

CERTIFICATION

The undersigned, as Chair of Bay Area Clean Water Agency, hereby certifies that the foregoing Resolution was duly adopted by the Executive Board at its regular meeting held on December 20, 2019.

Lori Schectel, Chair
BACWA Executive Board



December 13, 2019

Sent via electronic-mail to: COPCpublic@resources.ca.gov

Wade Crowfoot, Secretary for Natural Resources
Chair, California Ocean Protection Council
California Natural Resources Agency 1416 Ninth Street, Suite 1311
Sacramento, CA 95814

SUBJECT: Comments on Strategic Plan to Protect California's Coast and Ocean 2020-2025

Dear Chair Crowfoot and Members of the Council,

On behalf of the water and wastewater community in California, the undersigned trade associations write to provide comments on the proposed Strategic Plan to Protect California's Coast and Ocean 2020-2025. Our coalition represents over 500 public water and wastewater systems in California. Together we provide essential public services in nearly every community in the state including the delivery of clean safe drinking water, treatment and distribution of drought resilient recycled water, and we protect the environment and public health through effective wastewater treatment. Our associations promote sustainability with a focus on advocacy, education and leadership.

Our coalition shares the OPC's commitment to ocean protection and increasing recycled water use in California. We worked with OPC staff to develop legislation guiding the OPC's development, adoption and implementation of a Statewide Microplastics Strategy. (SB 1263-Portantino, Chapter 609, Statutes of 2018), which is reflected in Goal 3.4.4. Additionally, we advocated for and supported AB 888 by Assemblymember Richard Bloom (Chapter 594, Statutes of 2015) which prohibited the use of plastic microbeads in personal care products like face wash, soap, and toothpaste after January 1, 2020.

We value our partnerships with OPC and look forward to our continued collaboration to advance the health of our oceans.

In the recently released draft Strategic Plan to Protect California's Coast and Ocean 2020-2025, there were several new objectives, including one that is very problematic and concerning for wastewater treatment plants that discharge into the Pacific Ocean in compliance with the U.S. Environmental Protection Agency's National Pollutant Discharge Elimination System (NPDES) permitting program.

Objective 1.2.3: Establish a target date for phasing out coastal sewage discharge into the ocean by 2022. Work with partners to achieve 80-100% coastal wastewater recycling by 2040.

Our comments below detail our concerns with the goal as proposed and offer suggested revisions for the Council's consideration.

Important Scientific Study Relevant to Proposed Objective 1.2.3 is Still Evolving

The proposed coastal sewage discharge phase-out, which we presume is meant to encompass all discharges of treated wastewater effluent, is included in the section of the plan dealing with ocean acidification and hypoxia (OAH). Including this goal under the larger objective of addressing ocean acidification and hypoxia would pre-suppose the outcome of ongoing research to evaluate the causes of ocean acidification and hypoxia. The potential impact from discharges of nitrates and remediation is a complicated and nuanced issue which is the subject of a significant amount of current research. In addition, many technological advances are being explored relative to management options. At this point, the best available science is not yet capable of quantifying the amount of OAH attributable to potential sources, which is why OPC's very own 10-year Ocean Acidification Plan (published in 2018) acknowledges the necessity to evaluate multiple anthropogenic and natural factors in order to develop effective solutions. To date, preliminary modeling results have generated hypotheses on potential causes that warrant closer evaluation and validation of biological and geochemical plausibility. These efforts should be infused with additional technical and financial assistance instead of being usurped by presumptive initiatives that redirect limited resources from critical wastewater infrastructures that have a demonstrated record of protecting public health and the environment.

Furthermore, a simplistic "eliminate discharges" goal does not account for other technical realities of wastewater management. Simply decreasing the volume of water being discharged into the ocean does not directly correlate with smaller concentrations of nutrients. As brine management is a necessary component of all wastewater treatment, those concentrations do not necessarily change because a higher volume of water is being recycled. Furthermore, technological advances in nutrient management make treatment technologies a viable, albeit expensive, option for nutrient management in places where demand for large volumes of recycled water is limited.

All of these technical considerations are being researched and evaluated by both the State Water Resources Control Board and regional water quality control boards. For example, in the Bay Area and also in Southern California, large scale scientific studies and management plans for nutrients, including the need for nitrification/denitrification, are currently being employed in conjunction with regional water boards. The regional boards have the authority to require wastewater agencies to comply with water quality requirements and can impose requirements for planning and implementation of processes to decrease nitrogen loadings in receiving waters where appropriate. In fact, in the San Francisco Bay Regional Water Quality Control Board has already adopted a second watershed permit that lays out a comprehensive plan for studying and addressing nutrients in the region. Under this permit, the 37 public wastewater agencies that discharge to the San Francisco Bay participate in and contribute funding to ongoing research to support future management decisions.

This objective is also a dramatic deviation from the other two goals in this section, which appropriately focus on science and strategy development, and is inconsistent with OPC's 2018 10-year Ocean Acidification Plan. Goal 1.2.1 calls for scientific guidance to the State Water Resources Control Board to inform new standards that minimize biological and chemical impacts including ocean acidification, hypoxia, and harmful algal blooms, and Goal 1.2.4 calls for implementation of California's Ocean Acidification Action Plan by 2023. The 2018 OPC 10-year Ocean Acidification

Plan includes 5 and 10-year measures of progress, and a statewide OAH vulnerability analysis which is currently underway. In contrast, despite the acknowledgement that the science is still developing and that there are multiple factors affecting ocean acidification, Goal 1.2.3 leaps ahead to presume that elimination of permitted coastal wastewater discharges—all of which are already regulated under the Clean Water Act-- is the sole solution to dealing with OAH.

For these reasons, we recommend that the Council delete Goal 1.2.3 and instead focus on collaborating with the State and regional water boards to ensure permitted discharges of nutrients are based on the best available science to protect ocean health.

Any OPC Goal to Address Coastal Discharges Should be Consistent with the Water Board's Recycled Water Policy

We believe that the State Water Resources Control Board's Recycled Water Policy adequately addresses the state's goal of beneficially reusing wastewater that can viably be recycled. However, if the OPC believes its already ambitious plan must also include a goal to reduce ocean discharges, we urge the Council to reframe the goal as a water recycling objective consistent with existing state policy. The only way to reduce discharges (as discussed further below, elimination of wastewater discharges to the ocean is neither reasonable nor feasible) is to greatly increase water recycling. The water generated by millions of Californians will not simply disappear, and major variations in the way water is distributed in California pose substantial supply and management considerations for nearly every coastal area that would be impacted by this objective. In addition, it is not helpful to have two state agencies with key roles in ocean protection adopt different and conflicting goals. Therefore, if the Council decides to retain some form of a goal for coastal discharge reduction, we recommend it include a reference to the goal already adopted by the Water Board after extensive stakeholder comment, and move the goal to from the section on OAH to Objective 1.1 dealing with climate resiliency.

The State Water Board's recently adopted Recycled Water Policy includes the following goal:

“Reuse all dry weather direct discharges of treated wastewater to enclosed bays, estuaries and coastal lagoons, and ocean waters that can be viably put to a beneficial use. For the purpose of this goal, treated wastewater does not include discharges necessary to maintain beneficial uses and brine discharges from recycled water facilities or desalination facilities. (Emphasis added.)

Major Regulatory, Funding and Practical Realities Stand in the Way of an 80 to 100 Percent Reduction in Discharges

We appreciate that the plan acknowledges the need to engage with the Water Board to develop a plan to achieve the proposed discharge elimination goal. There are numerous other public agencies and stakeholders who must also be at the table in any plan development process. As of today, the regulatory framework necessary for agencies to plan and implement projects to manage the massive volumes of water contemplated in Goal 1.2.3 does not exist. Existing beneficial reuse options are limited and could not be utilized to manage such a vast quantity of water. Instead, many agencies would need to implement large scale potable reuse projects. The State Water Board is charged with developing regulations for Direct Potable Reuse by 2023. Until that regulatory scheme has been developed it will be nearly impossible for agencies to plan for, let alone implement, projects to meet the goal. To put this in perspective, some of the most ambitious recycling projects underway in the

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state currently have 20 to 30 year project schedules, and when fully operational will still not meet the proposed 80 to 100 percent discharge reduction.

There are also numerous technical realities in the wastewater treatment and management processes that must be considered. Major operational issues exist, including brine management, wet weather influent management, existing regulatory constraints relative to minimum flows, and other real and substantive conflicts with how wastewater agencies function in their communities. These technical issues are vast, far reaching, and vary based on the regional watershed and individual permitting levels.

The Proposed Discharge Elimination is in Conflict with Important Public Policies

Some of California’s most ambitious policy goals may be in conflict with Goal 1.2.3. For example, California is a leader on climate change mitigation and adaptation and has taken several steps in recent years to curb emissions and transition to a more sustainable future. Requiring all coastal areas to severely curtail discharges could adversely impact those efforts by increasing the emissions associated with advanced wastewater treatment and the associated energy demand required to move the high volumes of water over or across a variety of geographical settings.

California is simultaneously pursuing policies to make living more affordable for all residents of the state. Unfortunately, achievement of the goal to severely reduce ocean discharges would require massive infrastructure development and rate increases for a significant portion of the state’s population, including some of the most disadvantaged communities in California. The rate implications would likely have a trickle-down effect of impacting housing affordability as well, as connection fees and ongoing rates would necessarily increase living expenses and the cost of new development in impacted areas.

Finally, as California grapples with how to provide safe, affordable, clean drinking water for all, we need to be cautious of a singular focus on coastal discharges that would create additional strain on the limited resources available to fund clean water projects. To the extent that coastal agencies seeking to meet this goal would be expected to apply for and absorb the limited existing grant and loan opportunities available to them, this would inevitably draw funds away from numerous inland areas (such as the Central Valley) where there are so many urgent drinking water and clean water priorities in need of funding.

Thank you for your consideration of our comments.

Sincerely,



Roberta Larson
California Association of Sanitation Agencies



Danielle Blacet

DRAFT

California Municipal Utilities Association



Dave Bolland
Association of California Water Agencies



Dave Williams
Bay Area Clean Water Agencies



Steve Jepsen
Southern California Alliance of Publicly Owned Treatment Works

CC: Members, California Ocean Protection Council
Mark Gold, Executive Director, California Ocean Protection Council

Eutrophication Assessment of San Francisco Bay: Conceptual Workplan

Establish Indicators and Communicate Status and Trends

December 2019

INTRODUCTION

Assessment frameworks are a tool used to systematically evaluate and assess the overall condition of a system. The Assessment Framework for Water Quality in San Francisco Bay, a project of the SF Bay Nutrient Management Strategy (NMS), was developed to assess the risk of eutrophication in San Francisco Bay. In the first iteration of the Framework completed in 2015 (AF 1.0), multiple lines of evidence, including eutrophication indicators, indicator thresholds, and indicator trends, were used to assess the condition of open water areas of the Bay. The first iteration also identified recommendations for subsequent work, including expanding the Assessment Framework to shallow margins areas, diked baylands, restored salt ponds, and tidal sloughs; improving the scientific basis for evaluating dissolved oxygen concentration; and reducing the uncertainty associated with the relationship between chlorophyll a and harmful algae toxins and harmful algae concentrations.

The second iteration of the Assessment Framework (AF 2.0) is now underway. Our general approach to developing AF 2.0 is shown in Figure 1. In short, there are five interconnected elements, including establishing indicators, refining indicator thresholds, tracking status and trends over time, conducting special studies, and synthesizing and communicating this information.

In order to ensure the updated Framework is aligned with stakeholder goals, SFEI has been working with a subgroup of representatives from the San Francisco Bay Regional Water Quality Control Board (Water Board) and Bay Area Clean Water Agencies (BACWA). Two overarching themes emerged from those meetings. First, the Assessment Framework needs to serve two primary objectives:

- 1) Identify early warning signals of increased eutrophication risk that trigger enhanced monitoring efforts.
- 2) Inform management decisions such as 303(d) listing decisions, consumption warnings, and nutrient load management (e.g., NPDES watershed permit).

Second, the Assessment Framework will contain indicators and thresholds for two different habitats of the Bay: 1) the open Bay and 2) the shallow water margins areas and tidal sloughs. The indicators chosen from each habitat should be strongly correlated with nutrient availability.

Because work from the AF 1.0 was focused on the open Bay, additional work in that habitat will progress more quickly than in the margin areas and tidal sloughs. For example, condition assessments and trends analyses can be updated with recently collected data for the open Bay indicators that were used in AF 1.0. For the margin areas and tidal sloughs, we will need to convene a series of expert workgroups to get input on how we define “margins” and “sloughs”; the types of indicators that are appropriate for that habitat; and thresholds for those indicators. We will also need to convene an expert workgroup to advance the work on indicators and thresholds for harmful algae. Initial indicators and thresholds used in AF 1.0, additional monitoring needs, and harmful algae species to include in AF 2.0 will be the focus of discussions by the expert workgroup.

For the open Bay, the next steps for AF 2.0 include:

- 1) Performing preliminary condition assessments using the indicators and thresholds developed in AF 1.0;
- 2) Determining the plausibility of current dissolved oxygen thresholds not being protective of aquatic life under future conditions; and
- 3) Convening an expert workgroup to refine the approach used to assess harmful algae.

For the margins and tidal sloughs, the next step for AF 2.0 is to convene an expert workgroup to define the scope and possible approaches of an assessment in this habitat. We will continue to work with our small group to develop charge questions for this workgroup so the outcomes are tailored to the needs of the NMS stakeholders. The small group will also identify appropriate times for communicating progress on AF 2.0 that balances the need for free exchange of ideas amongst the experts participating in the workgroups with stakeholder’s desires to be informed as decisions are being made.

ELEMENTS OF ASSESSMENT FRAMEWORK WORKPLAN

For on-going AF development, we're organizing activities or work-types into 5 Elements. Elements 1-3 call out 3 broad components of the AF, and specifically the discussions/input with regulators for setting goals/priorities for further AF refinement, and/or regulators to make interim decisions. Element 4 Special Studies involves doing the technical work related to refining Elements 1-3. Example workflow...In Element 2, over Dec-Jan SFEI will **i)** Work with WB and stakeholders to identify priorities for deep subtidal/chl/DO/HAB AF refinements, **ii)** Turn those priorities into charge questions for an expert work group; **iii)** Carry out initial data analysis based on WB priorities, as input to expert meeting; **iv)** Convene expert work group (guided by charge questions); **v)** Based on expert input, carry out additional analyses or field studies/data collection.

Element 1: Indicators	Element 2: Thresholds	Element 3: Trends	Element 4: Special Studies	Element 5: Reporting
<p>Establish Initial Set of Indicators</p> <p>Develop and refine a set of primary and secondary indicators of condition.</p>	<p>Develop Test Approaches: Thresholds & Classification</p> <p>Work with regulators and stakeholders to identify priorities/needs for establishing thresholds related to Indicators (#1). Carry out development and testing through #4.</p>	<p>Develop Test Approaches: Trends</p> <p>Work with regulators and stakeholders to identify priorities/needs for characterizing trends related to Indicators (#1). Carry out development and testing through #4.</p>	<p>Expert Working Groups</p> <p>Convene expert working groups to develop and refine approaches for thresholds, trends, and classification matrix</p>	<p>Develop Communication Tools</p> <p>Use information from #2 & #3 to develop data graphics appropriate for public and stakeholder consumption</p>
<p>Finalize Indicators</p> <p>Revisit and establish final set of indicators.</p>	<p>Establish Thresholds and Classification Schemes</p> <p>Work with regulators to identify appropriate thresholds and classification matrix (e.g., high, moderate, low condition) based on, based on output from #4.</p> <ul style="list-style-type: none"> - Provisional, Draft, and Final - Early warning indicators vs. impairment indicators? 	<p>Establish Trend Criteria and Classification Schemes</p> <p>Work with regulators to identify appropriate trend criteria, based on output from #4</p> <ul style="list-style-type: none"> - Provisional, Draft, and Final - Early warning indicators? 	<p>Data Analysis, Synthesis, and Interpretation</p> <p>Incorporate new data and techniques to update understanding, and to refine thresholds, quantify uncertainty, and decrease confidence intervals. This work could be performed in preparation for or as outcomes from Expert Working Groups</p>	<p>Periodic Reporting</p> <p>Produce annual or biannual reports to convey status and trends, as well as updates on outcomes from NMS projects</p>
	<p>Assess Condition</p> <p>Compare observed water quality with thresholds and classify condition.</p>	<p>Characterize/Quantify Trends</p> <p>Use established models and tools to calculate percent change and rate of change over varying time scales</p>	<p>Field Studies</p> <p>Incorporate new data and techniques to refine thresholds, quantify uncertainty, and decrease confidence intervals</p>	<p>Stakeholder Engagement</p> <p>Disseminate information to stakeholders via meetings & presentations, print material, and the SFEI website.</p>

Planning Subcommittee Meeting No. 42

December 4, 2019

9:00 am – 12:00 pm

Water Board Offices

Chair: Tom Mumley

Agenda

- | | | |
|----|-----------------------------------------------------------------|-------|
| 1. | Agenda Modifications (All) 5 min | 9:00 |
| 2. | Review Outstanding Action items (DW) 5 min | 9:05 |
| 3. | Science Program update (DS) 10 min | 9:10 |
| | a. Staffing | |
| | b. Other | |
| 4. | Priority Updates | |
| | a. Report-Outs - 10 min | 9:20 |
| | b. Current Issues – 20 min | 9:40 |
| | c. NMS Calendar Review -10 min | 9:50 |
| | i. Review future SC and PS meeting schedules (DW/IW) | |
| 5. | Other Updates – 80 min | 10:00 |
| | a. Discussion: HAB proposal recap | |
| | b. Discussion: Nature-Based Solutions Scoping & Evaluation Plan | |
| | c. Discussion: AF Work Plan and Next Steps | |
| 6. | Planning the next Steering Committee meeting – 40 min | 11:20 |
| | a. Agenda review and discussion – Dec 13 SC Mtng (DS) | |
| | b. Review of Action items from meeting (DW) | |
| | c. Next steps (ALL) | |
| 7. | Adjourn or address Parking Lot items | 12:00 |

Parking Lot of Identified PS Future Agenda Items

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

Planning Subcommittee (PS) Meeting No. 42

December 4, 2019

9:00 am – 12:00 pm

Water Board Offices

Chair: Tom Mumley

Meeting Summary

Attendees: David S., Ian W., Eric D., Tom M., Kevin L., Richard L., & Robert S.

1. **Agenda Modifications:** There were not modifications to the agenda.
2. **Review Outstanding Action items:** The Action Items were reviewed. All Action Items were completed except for the following three which are being held over for completion, from prior meetings.

Action Item: Prepare revisions to the Charter regarding chairing the SC meetings (IW).

Action Item: The Program Coordinator will work with the Water Board (WB) to help facilitate the development of the regulatory forecast for the 3rd Watershed Permit

Action Item: The SM is to report back to the PS and SC on how to best gear the four NMS projects slated for the LSB and possibly re-purpose the two projects related to fish in conjunction with the on-going UC Davis monitoring work. This item awaits the Assessment Framework update and is dependent on the DO workplan

3. **Science Program update:** The Science Manager (SM) indicated a surplus from FY19 is available in the order of ~\$60k, associated with redistribution of SM program direction allocations. Decisions regarding the use of these funds are ongoing and the SM will present a preferred alternative to the PS at the next meeting and the SC will be notified of the decision at the March SC meeting. The likely preferred alternative is to allocate towards new staff or collaborators to assist in moving reports and synthesis forward.
 - a. **Staffing** - Erika King is leaving SFEI in January to go to graduate school in Alaska. She is beginning to transition the program to other staff now and the SM is considering options for filling this position.

- b. **Other** - Discussion was held regarding the need to fill seats from the Delta Stewardship Council, since the departure of Rainer Hoenicke, and CA DFW, which has not been participating in SC meetings for some time. **Action Item: Program Coordination team will identify which agencies are not participating, based on SC meeting attendance and report back to the PS to identify next steps.**

4. Priority Updates

- a. **Report-Outs** – No report out
- b. **Current Issues** – No report out
- c. **NMS Calendar Review**

i. Review future SC and PS meeting schedules – The next SC meeting is scheduled for December 13th. The January PS meeting was cancelled and the next will fall on February 5, 2020.

5. Other Updates

- a. **Discussion: HAB Proposal** – In response to the EPA funding opportunity related to HAB research, a concept proposal was developed by the Program Coordination team and circulated to the PS and EPA for review. Support for submitting the proposal was expressed, based on the preliminary proposal. However, the December 10, 2019 deadline was determined to be infeasible to form partnerships and develop a sufficiently compelling proposal in the available time. Discussion followed regarding the need to identify partners, including wastewater agencies, which could host projects and provide match opportunities, in preparation of future opportunities. The BACWA representative shared that there is interest among BACWA agencies in convening one or more workshops on nutrient treatment technologies and strategies, including consideration of emerging and non-grayscale strategies. The workshop format could be similar to one convened several years ago that was focused on more established treatment technologies. Future BACWA meetings or workshops could be a forum for identifying projects and partners.
- b. **Discussion: Nature-Based Solutions Scoping & Evaluation Plan** – The Scoping & Evaluation (S&E) Plan was submitted by December 1st in accordance with the 2nd WS Permit. Discussion included that while the 2nd WS Permit does not explicitly call for review and approval the Water Board does have discretion to comment and request changes. Comments will be forthcoming, if needed.

Action Item: Program Coordination team to send Water Board staff a copy of the NBS Scoping and Evaluation Plan and identify opportunities for seeking feedback after the new year with Water Board staff working on ancillary efforts.

- c. **Discussion: AF Work Plan and Next Steps** – A draft Assessment Framework (AF) Work Plan is in development, based on the two meetings held to date. The meetings were attended by an ad hoc workgroup of Water Board staff, BACWA, and SFEI. The draft document was not circulated, and discussion followed regarding particular requests. This included the request to include explicit mention of management questions and potential results from the AF process, including 303(d) listing and serving as an early warning system.

Discussion also included the need to be more explicit in the structure of an ongoing AF workgroup. At the Dec 2019 SC meeting the SC will be updated regarding the make up and objectives of the workgroup and the SC will be queried regarding whether additional participants are interested in attending future meetings.

Action Item: The Program Coordination team will provide draft AF Work Plan language to the PS for initial response and comment prior to inclusion in the Dec 2019 SC agenda package.

6. Planning the next Steering Committee meeting

- a. **Agenda review and discussion – Dec 13 SC Mtng –**

Discussion topics included:

- AF Work Plan: The SC should be presented with a summary of the Work Plan for initial response and feedback. A final Work Plan will be developed for presentation at the March 2020 SC meeting.
- FY2020 Program Plan: Discussion included priorities for discussing the decision-making process made in the June 2019 SC meeting for projects approved in FY20.
- Science Plan: The group discussed the appropriate target audience for the Science Plan and a process for meeting the needs of those SC members that need a relatively concise communication tool, versus those who may want a more in-depth discussion of how each project is related to one another and which management

questions are addressed by each project. Future efforts will include revisions to the existing Science Plan, to serve a relatively high-level audience, versus a potential web-based tool that communicates project relationships and status.

The SM recommended that mock-ups of the web-based approach should be developed for presentation to the SC in the March 2020 SC meeting for comment and future direction.

- QA/QC: Priorities for discussion of QAQC procedures were discussed, per BACWA request for information to be presented at the SC meeting. It was determined that a relatively short (~15 min) presentation would meet the needs of the group and provide opportunity for feedback.

b. **Review of Action items from meeting** – Action items were reviewed

c. **Next steps**

7. **Adjourn or address Parking Lot items**

Parking Lot of Identified PS Future Agenda Items

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

San Francisco Bay Nutrient Management Strategy (NMS) Steering Committee Meeting

Date/Time: December 13, 2019, 9:00 AM to 3:00 PM

Location: SFEI, Richmond, CA
4911 Central Ave

Chair: Thomas Mumley

Join the meeting: join.me/sfei-conf-cw2 phone: +1.415.594.5500 Conference ID: 238-626-034 #

AGENDA

	Agenda Item	Lead	Time
1	Welcome, Introductions and Agenda Review	TM	9:00-9:05
2	Decision: Approve Prior SC Meeting Summaries <i>Materials:</i> <ul style="list-style-type: none"> June 14, 2019 meeting summary 	TM	9:05-9:10
3	Information: Action items <ul style="list-style-type: none"> Update on action items from previous meetings <i>Materials:</i> <ul style="list-style-type: none"> Action Items Table 	TM	9:10-9:15
4	Information: Planning Subcommittee Report Out <ul style="list-style-type: none"> Update on planning subcommittee action items 	TM	9:15-9:25
5	Information: NMS Program Update <ul style="list-style-type: none"> Financials Program/Projects <i>Materials:</i> <ul style="list-style-type: none"> Quarterly Financial Report Program update 	DS	9:25-9:45
6	Discussion: Review FY20 Program Plan and Science Plan2.0 <ul style="list-style-type: none"> Recap of FY20 Program Plan and overview of FY20 projects SciencePlan2.0 overview, and potential approaches for structuring and sharing detailed components of 5-yr science plan. <i>Materials:</i> <ul style="list-style-type: none"> FY20 Program Plan Overview State-of-Science Jul-2019 Refresher: SciencePlan2.0 (Mar2019); ProgramPlan_FY20 <i>Desired Outcome:</i> <ul style="list-style-type: none"> SC updated on FY20 approved projects and status of work Feedback from SC on level of detail and uses of SciencePlan info 	DS	9:45-10:45
	Break		10:45-11:00

7 Discussion: Assessment Framework Concept	MF	11:00-12:00
<i>Materials:</i>		
<ul style="list-style-type: none"> Draft Assessment Framework work plan 		
<i>Desired Outcome:</i>		
<ul style="list-style-type: none"> Feedback on the conceptual strategy 		
Lunch (provided)		12:00-12:30
8 Technical Update: Biogeochemical field program	AC	12:30-1:00
<ul style="list-style-type: none"> Background on data needs related to measuring biogeochemical transformations Overview of draft workplan and report-out on discussion and feedback from Oct 1-2 expert working group 		
<i>Materials:</i>		
<ul style="list-style-type: none"> Draft workplan, including background technical report 		
<i>Desired Outcome:</i>		
<ul style="list-style-type: none"> SC updated on anticipated direction of field program Discussion and feedback 		
9 Technical Update: Modeling	SFEI team	1:00-1:45
<ul style="list-style-type: none"> Summary of modeling goals for FY20 and underway projects Update on modeling work, Jul-Nov 2020 		
<i>Materials:</i>		
<ul style="list-style-type: none"> Modeling Update - technical report (distributed at meeting) Refresher: Modeling 5yr Workplan ; Model Validation (Dec2018) 		
<i>Desired Outcome:</i>		
<ul style="list-style-type: none"> SC updated on modeling status, and work for FY2020 Discussion and feedback 		
10 Technical Update: HABs	DS	1:45-2:15
<ul style="list-style-type: none"> Overview of HAB program goals, and past and on-going work Update on two recent pilot projects 		
<i>Materials:</i>		
<ul style="list-style-type: none"> Utility of molecular techniques for HABs (distributed at meeting) Evaluating HAB-toxin levels in anchovies (distributed at meeting) 		
<i>Desired Outcome:</i>		
<ul style="list-style-type: none"> SC updated on status of HAB work Discussion and feedback 		
11 Other Business	TM	2:15-2:45
<ul style="list-style-type: none"> Updates from other activities/members 		
12 Action Items and Wrap-up	TM	2:45-3:00
Confirm next meeting date: March 13, 2020 @ SFEI		
Following meeting: June 12, 2020 @ SFEI		
Adjourn		3:00

NOTES: Public comment periods will be accommodated at the end of each agenda item (excluding item 1). The duration of each comment period will be at the discretion of the meeting chair. Breaks will be taken at the discretion of the meeting chair and the Steering Committee.



December 16, 2019

David P. Ross
Assistant Administrator, Office of Water
U.S. Environmental Protection Agency (EPA)
1200 Pennsylvania Ave. NW.
Washington, DC 20460

Subject: EPA Draft National Water Reuse Action Plan (Docket # EPA-HQ-OW-0174)

Dear Assistant Administrator Ross:

The California Association of Sanitation Agencies (CASA) and the Bay Area Clean Water Agencies (BACWA) appreciate the opportunity to comment on the Draft National Water Reuse Action Plan (Draft Plan). CASA is an association of over 125 public agencies engaged in advancing the recycling of wastewater into usable water, as well as providing wastewater collection, treatment, and resource recovery for the generation and beneficial reuse of renewable energy, biosolids, and other valuable resources. BACWA is a joint powers agency whose members own and operate publicly-owned treatment works (POTWs) and sanitary sewer systems that collectively provide sanitary services to over 7.1 million people in the nine-county San Francisco Bay Area. BACWA members are public agencies, governed by elected officials and managed by professionals who protect the environment and public health. BACWA supports a Recycled Water Committee with participants from both the water and wastewater sectors, who are interested in increasing recycled water in our Region.

CASA and BACWA support the Draft Plan and most of its proposed Actions. In California, the primary barriers to increased water recycling are shortfall of available funds for large infrastructure, as well as the challenges associated with implementing interagency agreements where the recycled water producer and distributor or water agency are different entities. The Draft Plan recognizes this first hurdle and proposes actions to address the funding gap in section 2.6, *Facilitate Financial Support for Water Reuse*. The challenge of interagency coordination is touched upon, but not directly addressed, in Section 2.2, *Coordinate and Integrate Federal, State, Tribal, and Local Water Reuse Programs and Policies*. CASA and BACWA recommend

that EPA add a new Action to Section 2.2 that would aim to incentivize or encourage the collaboration of water and wastewater agencies to develop recycled water projects.

With respect to Action 2.2.13, *Enhance Combined Sewer Overflow/Sanitary Sewer Overflow Abatement Strategies*, the nexus with water reuse is not apparent. Prevention of sewer overflows, while a laudable goal, does not directly impact recycled water. Action 2.1.3, *Incorporate Water Reuse and Capture Concepts into Integrated Planning Efforts at the Local Level* captures the importance of stormwater as a new water source whose quality could be impacted by sewer overflows. If this is the connection that is envisioned by Action 2.2.13, it should be clarified. Otherwise, CASA and BACWA recommend that the Action be removed from the Draft Plan.

There are other examples of interdisciplinary impacts that could be acknowledged in the Draft Plan. Our member agencies' experience with low influent flows during the recent California drought highlighted the necessity of planning for the impacts of one part of the water system on other parts. Water conservation is often thought of as a "free" means to augment potable water supplies. However, in 2012 through 2016, low flows resulting from conservation and low groundwater tables led to process impacts at wastewater treatment plants as water in collection systems stagnated and became anaerobic. Low flows also meant that water reuse programs had less feed water available for producing recycled water. These unintended consequences of low flows are captured in the Public Policy Institute of California's report, *Managing Wastewater in a Changing Climate*¹, and illustrate the importance of considering the water system as a whole.

We appreciate your consideration of our comments, and look forward to the finalization and implementation of this Draft Plan.

Respectfully Submitted,



Roberta Larson
California Association of Sanitation Agencies



David R. Williams
Executive Director

¹ Managing Wastewater in a Changing Climate full report available at: <https://www.ppic.org/wp-content/uploads/managing-wastewater-in-a-changing-climate.pdf>

CASA and BACWA Regulation Comments on EPA Draft National Water Reuse Action Plan (Docket #
EPA-HQ-OW-0174)
December 16, 2019
Page 3 of 3

cc: BACWA Executive Board
Stefanie Olson, BACWA Recycled Water Committee Co-Chair
Justin Waples, BACWA Recycled Water Committee Co-Chair

From: Adam Link <alink@casaweb.org>

Sent: Thursday, November 21, 2019 9:26 AM

To: AHeil@lacsds.org; mthorme@DowneyBrand.com; Lorien Fono <lfono@bacwa.org>; dornl@SacCounty.NET; eofficer@cvcwa.org; PMarkle@lacsds.org; tmoore@risk-sciences.com; Tomg@lwa.com; jwestfall@lacsds.org; Hassan.Rad@lacity.org; voightl@sacsewer.com; TPotter@centralsan.org; javiera@emwd.org; abaylor@socwa.com; lwiborg@sandiego.gov; MitchM@lwa.com; cjohns@calrestrats.com; sjepsen@dudek.com; leonardcj@cdmsmith.com; jzipkin@ebda.org; Haney@IRWD.COM; Jennifer.Shepardson@sbmwd.org; CKaul@srcity.org; abraham.razon@lacity.org; lpagano@sflower.org; NMunakata@lacsds.org; Jenny.Reina@jacobs.com; laura.pagano@veolia.com; twhall@eoainc.com; FranklinRe@sacsewer.com; katiemarjanovic@lacsds.org; RGAMBER@OCSd.COM; Wiborg, Lan <LWiborg@OCSd.COM>

Cc: Jared Voskuhl <JVoskuhl@casaweb.org>; Bobbi Larson <blarson@casaweb.org>; Adam Link <alink@casaweb.org>

Subject: Update on Toxicity Provisions / Recent Workshop

CASA Toxicity Group,

The State Water Board held a workshop last Friday to discuss three specific elements of the toxicity provisions:

- The development of a new Appendix to the draft Staff Report summarizing recent data and publications;
- The parameters for the study to determine sources of laboratory variability when using the *Cerio* chronic reproduction test; and
- Scenarios for how to deal with delayed inclusion of the median monthly effluent limitation (MMEL) using the *C. dubia* chronic toxicity reproduction test in permits that do not already have effluent limitations until a later date.

We want to set up a call to discuss these issues further in preparation for additional comments, meetings and next steps. Please fill out the below doodle poll for early December.

<https://doodle.com/poll/3ny2sb7w4e2hh227>

Also, below is a quick summary of what was discussed on Friday:

- The appendix will be short and primarily include a Fox et al memo and accompanying data that identified a 1 in 500 chance of an MMEL exceedance and 1 in a 1000 chance of triggering a TRE (essentially an attempt to bolster their arguments that the cerio reproduction test is valid). Unfortunately, this analysis and conclusion focuses only on test results that exhibited a 10% effect or less, and doesn't even try to address is the probability of failing the TST in a known non-toxic blank sample (which has been our focal point all along). It appears we are "talking past each other" in some respects as there is no disagreement with the underlying data, just the value of what that data can tell you and the ability to address our actual concerns.
- It seems the study will include analysis of blank samples (as we had requested), but Water Board staff were skeptical that the study would ultimately provide a known "error rate" for blank samples. There will also be a scientific review panel that goes beyond academic representatives. Ultimately much of this will be discussed and decided at a future scoping meeting on the study itself.

- Finally, the scenarios they provided were a bit convoluted, but Water Board staff provided the group several options that essentially would require those with existing cerio numeric limits to keep their limits, those with other species to fully implement the tox provisions as written, and those with narrative limits for cerio to transfer to a MDEL but make the MMEL a trigger. The biggest concern was with how and whether the numeric limits for cerio in the provisions would “kick in” at a date certain in the future. Staff seemed to indicate no matter what happens with the study, everyone would automatically have the numeric limits as written place in their permits by a date certain (2023?) . In contrast, we had requested some kind of check in with the Board once the study was complete, at which point they could decide how to proceed based on the study results.

In terms of next steps, the Appendix will be out in December for public comment, a workshop tentatively scheduled for January to go over the Appendix, with release of the revised staff report and response to comments after that, and consideration by the Board in spring 2020.

- Adam

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DRAFT

Executive Board Special Meeting Agenda

SF Bay Regional Water Board / BACWA Executive Board
 Joint Meeting

Wednesday January 8, 2020, 10am to 12pm

SF Bay Water Board, 1515 Clay Street, St. 1400 Oakland, CA

ROLL CALL AND INTRODUCTIONS – 10:00

PUBLIC COMMENT – 10:05

DISCUSSION/OTHER BUSINESS- 10:10

Topic	Goal	Time
1. Nutrients	<ul style="list-style-type: none"> • Presentation – Scoping and Evaluation Plan for Regional Evaluation of Potential Nutrient Discharge Reduction by Natural Systems (Ian Wren) • Presentation – Scoping and Evaluation Plan for Regional Evaluation of Potential Nutrient Discharge Reduction by Water Recycling (Mike Falk) • Discussion of vision for third Watershed Permit 	10:15
2. Basin Plan Amendments	<ul style="list-style-type: none"> • BACWA Update on progress on Chlorine Residual BPA • Other items to incorporate into BPA or separate BPA, such as Bacterial Objectives 	11:30
3. Enterococcus monitoring	<ul style="list-style-type: none"> • BACWA’s update on enterococcus wet weather sampling effort 	11.40
5. CECs	<ul style="list-style-type: none"> • BACWA’s response to RMP CECs synthesis stakeholder questions • Finalization of CECs White Paper and funding of CECs POTW monitoring • Discussion of potential State Water Board requirement to monitor PFAS 	11:45
7. Toxicity	<ul style="list-style-type: none"> • Update on adoption 	11:55

ADJOURNMENT

Special Study Proposal: Bisphenols in Wastewater and Sediment; Sunscreens in Wastewater

Summary: Bisphenols are a class of widely used, synthetic, endocrine-disrupting compounds, commonly found in polycarbonate plastics and epoxy resins, and frequently detected in environmental matrices. The ECWG classified bisphenols as Moderate Concern in the RMP tiered framework because both bisphenol A (BPA) and bisphenol S (BPS) were detected in Bay water in the range of a protective toxicity threshold for BPA (60 ng/L). The RMP funded a 2020 special study to quantify bisphenols in the wastewater effluent pathway and in Bay sediment. We propose to add value to this study by increasing the number of wastewater treatment facilities sampled from six to nine.

Additionally, recent qualitative work has indicated presence of one sunscreen active ingredient, oxybenzone, in Bay water and wastewater effluent. Oxybenzone and other sunscreen active ingredients have been shown to cause adverse effects, such as endocrine disruption in fish and bleaching on coral reefs. The City of San Francisco is considering a resolution to examine the occurrence and potential impacts of some of these compounds. We propose to leverage the RMP-funded bisphenol effluent monitoring by adding sunscreen effluent monitoring to help assess whether they may be a potential concern for the Bay.

This study is broken down into three tiered design options based on available project funding. Option 1 would include supplementing the screening of bisphenols in effluent. Option 2 would leverage effluent sample collection costs to add the analysis and reporting of sunscreens in wastewater effluent. Option 3 would combine Option 1 and 2.

Estimated Cost: Option 1: Supplement bisphenols in effluent: **\$10,500**
 Option 2: Add sunscreens in effluent: **\$36,500**
 Option 3: Combine Option 1 and 2: **\$47,000**
 Proposed by: Diana Lin, Rebecca Sutton, and Ila Shimabuku (SFEI)
 Da Chen (Jinan University)
 William Mitch and Djordje Vuckovic (Stanford University)

Table 1. Proposed timeline and deliverables. This timeline is consistent with the RMP funded study for 2020 for Bisphenols in Effluent and Sediment.

Deliverable	<i>Due Date</i>
Task 1. Field collection of effluent samples	Summer 2020
Task 2. Laboratory analysis of samples	Fall 2020–Winter 2021
Task 3. QA/QC and data management	Spring 2021
Task 4. Draft technical report(s)	Summer 2021
Task 5. Final technical report(s)	Fall 2021

Background

Bisphenols

Bisphenols are a class of high production, endocrine-disrupting chemicals that are used in the manufacturing of products such as polycarbonate plastics and epoxy resins. Bisphenol A (BPA), the most widely used and studied bisphenol, is one of the highest production volume chemicals in the world, at an estimated 8 million tons per year. It is also listed on California's Prop 65 List for developmental and female reproductive toxicity (OEHHA, 2019).

Leading up to the California state and federal bans on BPA in certain feeding containers for children and babies in the early 2010s, several major manufacturers began replacing BPA in their products with other bisphenols that are structural analogues to BPA. This increase in substitution and production of BPA analogues is expected to continue increasing (Rochester and Bolden, 2015).

Bisphenols are mobile and have been linked to a variety of potential negative health impacts in humans and wildlife, including estrogenic and genotoxic effects (Rosenmai et al., 2011; OEHHA, 2012; Lee et al. 2013). A review conducted by Biomonitoring California in 2012 predicted that many of the alternatives such as bisphenol AF (BPAF), bisphenol AP (BPAP), bisphenol B (BPB), bisphenol C (BPC), bisphenol F (BPF), and bisphenol PH (BPPH) were likely to be toxic or very toxic to aquatic organisms, according to US EPA criteria (OEHHA, 2012). The European Union's marine predicted no effect concentration (PNEC) for BPA is 150 ng/L (Bakker et al. 2016), but is thought by some to be too high due to omission of a more sensitive species during derivation. In 2011, a new assessment established a PNEC for BPA of 60 ng/L, based on an assessment of 61 studies evaluating the ecotoxicological endpoints of survival, growth, development, and reproduction in 24 freshwater and marine organisms (Wright-Walters et al., 2011).

The RMP previously analyzed open Bay water for BPA and 15 analogues in samples collected in 2017 (Shimabuku et al., 2019). BPA and BPS were detected in many samples with total water concentrations ranging from 1.5-35 ng/L and <1-120 ng/L, respectively. The ECWG classified bisphenols as Moderate Concern in the RMP tiered framework because both bisphenol A (BPA) and bisphenol S (BPS) were detected in Bay water in the range of a protective toxicity threshold for BPA (60 ng/L). ECWG also recommended measuring bisphenols in stormwater and wastewater pathways.

This study would supplement the RMP-funded 2020 special study to monitor BPA and 15 alternative bisphenol compounds in wastewater effluent and archived Bay sediment. This study would increase the number of wastewater treatment facilities sampled from six to nine. The results from this study will be used to further inform and/or refine the placement of bisphenols in the RMP's tiered risk framework.

Sunscreens

Ultraviolet (UV) radiation filters (sunscreens) are chemicals designed to absorb or reflect harmful solar radiation, and are used in personal care products (e.g., sunscreens, lotions, and cosmetics) and industrial products (e.g., insecticides, plastics, and paints) to mitigate deleterious effects of sunlight and extend product life.

These chemicals are widely detected in the environment, and some may biomagnify (Gago-Ferrero et al., 2018). Some sunscreen active ingredients are also potential endocrine disruptors (Balazs et al., 2016), and

there is increasing concern about their ecotoxicity (Kunz et al., 2006; Balmer et al., 2005; Downs et al., 2016), particularly for oxybenzone.

Oxybenzone (also known as benzophenone-3 or BP-3) is of high concern due to its wide use in the U.S., detection in the environment, and its potential for endocrine disruption. In a recent study of personal care products, oxybenzone was detected in over 80 percent of the products analyzed (Liao and Kannan, 2014). Oxybenzone is a high production volume chemical that is manufactured or imported into the U.S. in amounts greater than one million pounds per year. Oxybenzone has been detected in surface water, treated wastewater, invertebrates, fish, bird eggs, and coral tissue (Liao and Kannan, 2014; Mao et al., 2018; Fent et al., 2010; Kim et al., 2014). It has been identified as an endocrine disruptor in fish, causing vitellogenin induction in male fish, among other effects (Coronado et al., 2008; Kunz et al., 2006; Kim et al., 2014). In a laboratory study of zebrafish, a significant skewing of the sex ratio towards females and effects on gonad maturation were observed (Kinnberg et al., 2015). For aquatic organisms, the main exposure routes are thought to be through direct wash-off into surface waters during recreational activities, and indirect discharge of these chemicals from wastewater treatment facilities to surface waters.

Due in part to the potential for endocrine disruption and other deleterious effects in fish, and the potential for these compounds to cause coral bleaching, there is currently regulatory interest in restricting their use. The State of Hawai'i and the City of Key West, FL recently banned the sale of sunscreens containing oxybenzone and octinoxate due to exceedances of an ecological toxicity threshold for coral in water. The City of San Francisco is considering a resolution stating concerns about sunscreen chemicals oxybenzone, octinoxate, and butylparaben (a preservative) that are implicated in potential endocrine disruption of fish. City officials are interested in knowing whether these chemicals are detected in the Bay. Meanwhile, newly proposed sunscreen regulations from the FDA indicate there is insufficient safety information for the agency to determine whether oxybenzone, octinoxate, and ten other active ingredients are “generally recognized as safe and effective.” This project will provide information on an important pathway by which sunscreens may be introduced into the Bay.

Study Objectives and Applicable RMP Management Questions

Table 2. Study objectives and questions relevant to CEC management questions. Bisphenols objective and examples are shown in plain text whereas sunscreen objectives and examples are shown in italics.

Management Question	Study Objective	Example Information Application
1) Which CECs have the potential to adversely impact beneficial uses in San Francisco Bay?	<p>Characterize levels of bisphenols in wastewater effluent.</p> <p><i>Characterize levels of sunscreens in wastewater effluent.</i></p>	<p>Are detections observed previously in Bay water (BPA, BPS) capturing all bisphenols in the Bay environment?</p> <p><i>Are there detectable loads of sunscreen chemicals in Bay effluent? Do sunscreen chemicals warrant monitoring in Bay waters to evaluate potential risk to the Bay?</i></p>

<p>2) What are the sources, pathways and loadings leading to the presence of individual CECs or groups of CECs in the Bay?</p>	<p>This study will assess whether effluent discharge is a possible pathway of bisphenols to the Bay.</p> <p><i>This study will assess whether effluent discharge is a possible pathway of sunscreen chemicals to the Bay.</i></p>	<p>The study will provide information to help assess the need for pollution prevention activities, and whether wastewater is an important pathway for bisphenols.</p> <p><i>The study will provide information to help assess the need for pollution prevention activities, and whether wastewater is an important pathway for sunscreens.</i></p>
<p>3) What are the physical, chemical, and biological processes that may affect the transport and fate of individual CECs or groups of CECs in the Bay?</p>		
<p>4) Have the concentrations of individual CECs or groups of CECs increased or decreased?</p>		<p>This bisphenols study will provide baseline information that can be used to evaluate loading trends.</p> <p><i>This sunscreen study will provide baseline information that can be used to evaluate loading trends for sunscreen chemicals.</i></p>
<p>5) Are the concentrations of individual CECs or groups of CECs predicted to increase or decrease in the future?</p>		
<p>6) What are the effects of management actions?</p>	<p><i>This study will assess whether discharge of effluent is a possible source of sunscreen chemicals to the Bay.</i></p>	<p><i>Could management actions addressing sunscreen ingredients have a measurable impact on loadings to the Bay?</i></p>

Approach

Sample Selection:

Wastewater Effluent (Bisphenols & Sunscreens):

The primary goal will be to assess dominant effluent flows to the Bay. Six of the largest wastewater treatment facilities in the Bay will be sampled, including Central Contra Costa Sanitary District, East Bay Dischargers Authority, East Bay Municipal Utility District, San Jose-Santa Clara Regional Wastewater Facility, Palo Alto Wastewater Treatment. These facilities combined discharge a combined ~70% of wastewater effluent flows to the Bay. Three additional facilities will be selected for sampling considering unique characteristics such as service population and industries.

We will collect 24-hour composites of effluent into glass containers that will be shipped to analytical laboratories. Facilities will be sampled twice during the summer months for two samples per analyte group (bisphenols and sunscreen chemicals). We will collect samples mid-week to avoid variations in product use that may occur during the weekend.

Analytical Methods

Bisphenols:

Samples will be analyzed by members of Dr. Da Chen’s laboratory at Jinan University, the laboratory that previously analyzed the Bay water samples collected in 2017. Scientists will conduct the analysis in the U.S. while occupying guest positions within the laboratory of Dr. Rob Hale at the Virginia Institute of Marine Science.

Dr. Da Chen’s team will use their existing, highly sensitive water method, which uses liquid chromatography-electrospray ionization(-)-triple quadrupole mass spectrometry (LC-ESI(-)-QQQ-MS/MS) for effluent samples and will modify the same method for analysis of sediment samples. This method will include analysis of bisphenol A, as well as a suite of bisphenol analogues, including bisphenols B, C, AF, AP, BP, M, E, P, F, PH, Z, G, TMC, and C-dichloride.

Sunscreens:

Drs. William Mitch and Djordje Vuckovic of Stanford University, the analytical partners for this proposed study, have expertise in analyzing sunscreens in environmental samples. The target analyte list is shown in Table 3. Currently, the first six compounds in Table 3 are confirmed as part of the analytical method. The last four compounds in the table are expected to be added to the analytical method. Oxybenzone is the priority analyte because it is one of the most widely used sunscreens and has significant ecotoxicity concerns. We will compare the effluent concentrations to literature values to determine whether the levels are of concern.

Table 3. Potential Target Sunscreen Analytes

Compound	Concerns
Oxybenzone (Benzophenone-3, BP-3)	Wide use; frequent detection; ecotoxicity concerns. ECHA classified as very toxic to aquatic life. Prioritized by City of San Francisco.
oxybenzone-glucuronide	BP-3 major metabolite
4-hydroxybenzophenone (4HB)	BP-3 metabolite
Benzophenone-1 (BP-1)	BP-3 metabolite
BP-8	BP-3 metabolite
Benzophenone-2 (BP-2)	
Benzophenone-12 (BP-12)	
4-Methylbenzophenone	
Octinoxate (Ethylhexyl methoxycinnamate, EHMC)	Wide use; frequent detection; ecotoxicity concerns. Prioritized by City of San Francisco.
Butylparaben	Wide use. Prioritized by City of San Francisco.

Budget

Table 4. Proposed Budget for the following options:

- Option 1: Supplement Bisphenols in Effluent
- Option 2: Add Sunscreen in Effluent
- Option 3: Combine Option 1 and 2

Expense	Option 1	Option 2	Option 3
Labor			
Project Staff			
Sample Design Collection	5,000	3,500	8,500
Reporting	0	15,000	15,000
Data Technical Services	500	5,000	5,500
Subcontracts			
Da Chen, Jinan University	3,600		3,600
Bill Mitch, Stanford University		12,500	12,500
Direct Costs			
Equipment	200	200	400
Travel	600	300	900
Shipping	600		600
Grand Total	10,500	36,500	47,000

Budget Justification

The added cost necessary to fund the sunscreens add-on is \$36,500. As a stand-alone study, the costs associated with analyzing sunscreens in wastewater effluent are estimated at \$47,000.

Labor: Field Costs

Field costs for Option 1 are associated with collecting effluent samples from an additional three wastewater treatment plants twice. This will supplement the RMP-funded study that includes sampling at six wastewater treatment plants twice. Field costs for Option 2 are associated with additional labor for project management, communication with Stanford University, and transportation of samples to Stanford University for the analysis of sunscreen in effluent.

Labor: Reporting

Two separate reports will be developed for bisphenols and sunscreen chemicals. There is no additional reporting costs for Option 1, which will supplement the funded bisphenols study. Option 2 includes a separate sunscreen report, which will consist of a literature review to provide context and a short technical

summary of results. Depending on the results from the sunscreen analysis, it is possible that Stanford researchers will prepare a manuscript.

Labor: Data Technical Services Costs

To minimize data management costs, data for the bisphenols and sunscreens will undergo RMP QA/QC and be formatted for CEDEN but not uploaded. Combining efforts saves anywhere from \$500-\$2,000 in data management costs. Estimated cost for Option 1 and 2 includes labor associated with managing additional data that will be included.

Subcontracts: Laboratory Costs

Bisphenols (Option 1):

Option 1: For wastewater effluent, analytical costs are estimated to be \$600 per sample. For the supplemental six effluent samples that will be collected (two each at three facilities), the additional analytical cost will be \$3,600.

Sunscreens (Option 2):

The laboratory analysis costs of \$10,000 are a fixed budget for the analysis of between 12 and 20 wastewater effluent samples as well as four QA/QC samples. If Option 2 is funded, 12 effluent samples will be analyzed from the six facilities that will be sampled through the funded through the RMP-funded study. If Option 3 is funded, 18 effluent samples will be analyzed by leveraging the additional activity at wastewater facilities that will be sampled from Option 1 of this study. An extra \$2,500 was added for the lab to assist with reporting.

Reporting

Two separate reports will be written for the bisphenols and the sunscreens. Each will have the same timeline: results will be provided to the RMP committees in a technical report. A draft of the report will be provided for review in summer 2021. Comments will be incorporated into the final report by fall 2021.

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BACWA
BAY AREA
CLEAN WATER
AGENCIES

BAY AREA CLEAN WATER AGENCIES
DRAFT ANNUAL MEETING PROGRAM
JANUARY 10, 2020

Open your browser
 ENTER: pollev.com/bacwa
 For Ranking questions: use the lines to the right to arrange your answers

TIME	SUBJECT	DESCRIPTION	SPEAKER	Notes
QUESTION 0				
8:30 am - 9:00 am	Coffee and Refreshments/Check-in	(note: provide the tri-fold Op/Upgrade brochure as handout at registration table)		
9:00 am - 9:15 am	Welcome	Introduction and Year in Review (including business issues)	Lori Schectel, Chair	
9:15 am - 10:30 am	BAAQMD/EPA/SWRCB/RWQCB/ Priorities	<p>Moderator</p> <p>BAAQMD APCO</p> <p>EPA Region IX, NPDES Permits Section</p> <p>SWRCB Board Member</p> <p>RWQCB Executive Officer</p> <p>Q&A</p>	<p>Amit Mutsuddy</p> <p>Jack Broadbent (accepted)</p> <p>Tomas Torres (accepted)</p> <p>Tam Doduc (accepted)</p> <p>Michael Montgomery (accepted)</p>	
10:30 am - 10:45 am	Break			
	BACWA Hot Topics	Moderator	Jackie Zipkin	
10:45 am - 11:20 am		CECs (State Panel, microplastics, PFAS)	Becky Sutton and/or other SFEI staff	
11:20 am - 11:35 am		ELAP	Jason Mitchell or Dan Jackson	
11:35 am - 11:50 am		Recycled water permit transition	Stefanie Olson or Justin Waples	
11:50 am - 11:55 am	BACWA Leadership Recognition		Lori Schectel, Chair	
11:55 am - 12:25 pm	Lunch			
12:25 pm - 12:35 pm	Arleen Navarret Award presentation and BACWA Leadership Recognition	presentation of award	Amy Chastain	
12:35 pm - 12:45 pm	Institute for Sustainable Infrastructure	presentation on Envision	Justin Waples	
	BACWA Hot Topics	Moderator	Jackie Zipkin	
12:45 pm - 1:10 pm		AIR Issues/Climate Adaption	Sarah Deslauriers	
1:10 pm - 1:20 pm		Bay Area Biosolids Coalition	Sarah Deslauriers	
1:20 pm - 1:30 pm		Chlorine Basin Plan Amendment	Tom Hall	
1:30 pm - 1:35 pm	Nutrients - Overview	Overview of 2nd WS Permit/Governance Update	David Williams	
1:35 pm - 2:20 pm	Nutrients - Regulatory Update	<p>Moderator</p> <p>2018 Group Annual Report</p> <p>Q & A</p> <p>Nature Based Solutions Study</p> <p>Regional Recycled Water Report</p>	<p>Eileen White</p> <p>Falk, HDR</p> <p>Ian Wren, SFEI</p> <p>Kennedy, HDR</p>	
2:20 pm - 2:50 pm	Nutrients - Technical Update	<p>Moderator</p> <p>Update on the Science Plan and Findings</p>	<p>Eric Dunlavy</p> <p>David Senn, SFEI</p>	
2:50 pm - 3:00 pm	Annual Meeting Wrap-Up		Lori Schectel, Chair	



Arleen Navarret Leadership Award Nomination Form

Name: _____

E-mail: _____

Agency: _____

Phone: _____

What is it?

This award of \$2,500 was created in honor of Arleen Navarret and her dedication to improving the health of the San Francisco Bay. Arleen spent nearly 30 years with the San Francisco Public Utilities Commission and provided leadership to BACWA and Tri-TAC boards and committees. Her combination of technical and regulatory expertise and interpersonal skills has been invaluable to BACWA. Her development of effective relationships with regulators and community-based non-profits has resulted in the development of more thoughtful and effective water quality regulations. This is a biennial award honoring emerging leaders in the BACWA community exhibiting characteristics possessed by former BACWA Chair, Arleen Navarret:

- Leadership in the workplace and wastewater community
- Commitment to environmental protection
- Mentorship of and compassion for others
- Technical expertise
- Ability to communicate effectively with a myriad of people
- Exemplary public service.

Who is eligible?

Only current employees of BACWA member agencies are eligible to receive this award.

How to apply

Applicants may nominate themselves, or be nominated by their colleagues. Applications must include:

1. Completed Nomination Form
2. Individual Narrative (in the following format)
 - a. nominee name at the top of each page
 - b. no more than 2 pages of double-spaced, 12 point font
 - c. concise introductory paragraph describing who the individual is and why they are being nominated
 - d. subsequent paragraphs that address
 - i. specific work or activities of the nominee that meet the one or more of the following criteria for the award: leadership; environmental protection; mentorship; tech expertise; effective communication; public service
 - ii. the specific opportunity to which the award could be applied and how it would benefit the awardee in their professional development related to one or more of the following: leadership; environmental protection; tech skills development
 - e. concluding paragraph describing how this individual has or has the potential to positively impact and contribute to the wastewater community.

Deadline and Selection

Applications are due by November 12, 2019 and should be submitted by e-mail as an attachment to loneill@bacwa.org. The winner will be selected by the Award Committee and the award will be presented to the recipient at the BACWA Annual meeting on January 10, 2020.



B A C W A
BAY AREA
CLEAN WATER
AGENCIES

Arleen Navarret Leadership Award
Nomination Form

Name: _____

E-mail: _____

Agency: _____

Phone: _____

BACWA – Arleen Navarret Leadership Award Nomination Form

Nominee: Levi Fuller **Agency:** Dublin San Ramon Services District (DSRSD)

As Wastewater Treatment Plant Operations Supervisor of DSRSD's Regional Wastewater Treatment Facility, Levi Fuller plans and provides direction and oversight for wastewater treatment and recycled water treatment via sand filtration and microfiltration. He joined DSRSD in January 2000 after working for the City of Pinole, but before that he learned about water treatment working at a desalination plant on an aircraft carrier for the US Navy.

Attracting people to the wastewater industry is one of Levi's top priorities. He is on the Executive Committee of the Bay Area Consortium for Water and Wastewater Education (BACWWE) and serves as an instructor for the college-level Wastewater Treatment I course. Currently half of DSRSD's wastewater treatment operators have gone through the BACWWE program, and the District typically has about five operators-in-training. Levi has taught in the program for such a long time, he now estimates about 75% of the wastewater treatment plants in the Bay Area have one of his former students on staff. "It's a neat feeling to have made that contribution to the industry," he said. Teaching also helps him keep up with changing technology, and he encourages his staff to continue learning new techniques.

After his time in the Navy, Levi did environmental cleanup, including bioremediation of contaminated groundwater and soil. Using microorganisms to clean the environment led him to working in wastewater treatment, realizing how important it is for people and other living things to have clean, safe water. "Water is one of the things we take for granted living in a first-world country," Levi said. "Having safe water is one of the most important things any society needs to thrive and have healthy people, plus protecting the environment for all kinds of

aquatic organisms and other animals.” He loves the problem-solving aspect of his job, troubleshooting and developing solutions to adverse reactions, equipment failures, and other issues of managing wastewater treatment operations. He understands the treatment plant plays a key role in resource recovery: making recycled water for irrigation and reclaiming biogas from digesters to use as fuel.

Levi spends much of his time reaching out to industry partners as well as to the public. He is the chair of the Staff Preparedness Committee for Baywork (a consortium of utilities working to ensure a reliable workforce), has served on the Operations & Maintenance Committee for BACWA, and is a member of the California Water Environment Association, the California Association of Sanitation Agencies, and the Water Environment Federation (WEF). Levi has given countless tours of DSRSD’s treatment facility, including to sister city foreign dignitaries from Russia, China, and Mexico. He treats these experiences as opportunities to educate people whose countries may not have advanced treatment so they can bring ideas back home with them. Outside of work, Levi has been president of the men’s fellowship at his church and supports a monthly pancake breakfast for the homeless.

Levi would like to increase training opportunities to populations who are underrepresented in the industry, including minorities, women, and the economically disadvantaged. He spoke at a national WEF conference and at a statewide Association of California Water Agencies conference during summer 2019 to promote recruitment of more populations to the field. “The industry has a need,” Levi said, “and this is where blue-collar workers can do important work and make a good living.” Throughout his career, Levi has played a huge role in attracting the next generation to the field by sharing his wisdom and experience.

**ANNUAL REPORT to the
SOLANO COUNTY BOARD OF SUPERVISORS**

LAND APPLICATION OF BIOSOLIDS in SOLANO COUNTY



**Prepared by the BACWA Biosolids Committee
December 2019**

Introduction

With the 2019 application season recently completed, the Bay Area Clean Water Agencies (BACWA) Biosolids Committee is pleased to present its annual summary report on land application of biosolids in Solano County. BACWA wishes to express its sincere appreciation to the staff of the Environmental Health Services Division of the Department of Resource Management for the continuing support of the biosolids land application program. This program allows for the effective use of biosolids as an agricultural soil amendment in the County. We believe this partnership provides a valuable resource to the Solano County agriculture and provides many Bay Area agencies with an opportunity to ensure their biosolids are put to their highest and best use and are making a positive impact on the environment.

This report provides information on trends in the use of biosolids resources in California and the Bay Area, an update on regional biosolids programs, and specific information on projects from individual agencies currently applying biosolids in the County. It highlights each agency's compliance with the requirement in Chapter 25, Article IV, Sec. 25-400 that "Class B biosolids may only be land applied provided that the generator of the Class B biosolids is individually or as part of a consortium having a portion of their biosolids produced as Class A Exceptional Quality biosolids, converting biosolids to energy, or otherwise diverting Class B biosolids away from land spreading or landfilling (as waste or as Alternative Daily Cover)."

This report is intended as supplemental information to the report submitted by the County Department of Resource Management staff and by Synagro, contract haulers and appliers of biosolids. It has been prepared for the Solano County Board of Supervisors in response to the Board's request for an annual update on agency activities and progress towards compliance with the goals set forth in County Code, Chapter 25. The affected agencies have coordinated the required reporting through BACWA to produce a single report for the Board.

We would like to acknowledge the assistance of your staff in working with BACWA member agencies throughout the year, particularly Jagjinder Sahota (Program Manager), Jeffrey Bell (Supervisor), Anthony Endow, Chelsea Lash and Long Lai.

Municipal Agencies Applying Biosolids in Solano County

The use of biosolids as an amendment supplies valuable plant nutrients and carbon to soils which enhances the productivity and financial resilience of local farms. Each agency that applies biosolids is required to meet strict standards and provides a report annually to the United States Environmental Protection Agency (USEPA) to demonstrate compliance. In 2019, the following Bay Area agencies transported biosolids to agricultural land in Solano County under contract with Synagro:

City of Calistoga
 Central Marin Sanitation Agency (serving San Rafael, Ross Valley, Larkspur, and Corte Madera)
 Delta Diablo (serving Antioch, Pittsburg, Bay Point)
 East Bay Municipal Utility District (serving El Cerrito, Albany, Berkeley, Emeryville and Alameda)

City of Eureka
 Fort Bragg Municipal District #1
 Ironhouse Sanitary District (serving Oakley and Bethel Island)
 San Francisco Public Utilities Commission Southeast Water Pollution Control Plant
 Oceanside Water Pollution Control Plant
 Town of Windsor

A total of 8,045 dry tons were land applied on agricultural sites in Solano County in 2019. The portion from each agency is shown in Figure 1. Data provided by Synagro indicates that the total quantity of biosolids applied to agricultural land in Solano County in 2019 increased by 5 percent over the 2018 application season total of 7,665 dry tons and 29 percent over the 2017 application season total of 6,243 dry tons.

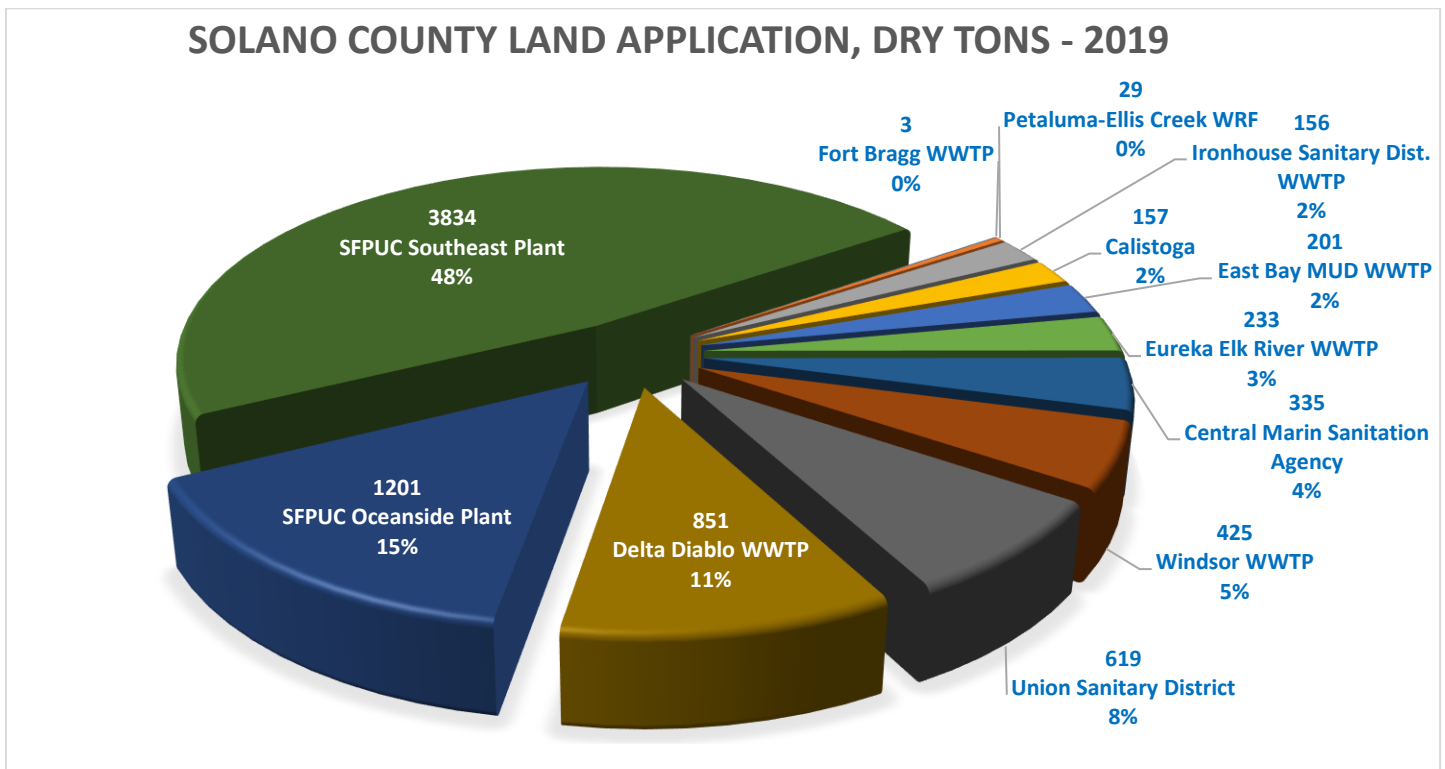


Figure 1. Amount of Biosolids Applied in Solano County by Each Agency in Dry Tons (2019). (Data provided by Synagro).

Trends in Biosolids Usage in California

Wastewater agencies in California are continuing to identify and evaluate new options for biosolids reuse and recycling, including emerging technologies as well as established practices such as composting and heat drying.

Overall California Use Summary. Figure 2 summarizes the use of biosolids in California for calendar years 2009 through 2018. Data for 2019 are not yet available and will be included in the 2020 report. The number one use statewide continues to be land application for agriculture in the form of compost, Class B biosolids and Class A biosolids. The use of biosolids compost has increased steadily, accounting for 20% of statewide biosolids use in 2011 to 36% in 2018. Land application of Class B biosolids increased slightly from 21% to 24%, and land application of Class A biosolids increased from 5% to 10%. Biosolids have proven to be a safe, reliable, and nutrient-rich soil amendment that offers a more cost-effective alternative to chemical fertilizers, which are increasingly expensive and energy intensive to produce. The beneficial use of biosolids as alternative daily cover in landfills and landfill disposal are also common management practices for biosolids in California, account for 13% and 4% respectively of statewide biosolids distribution.

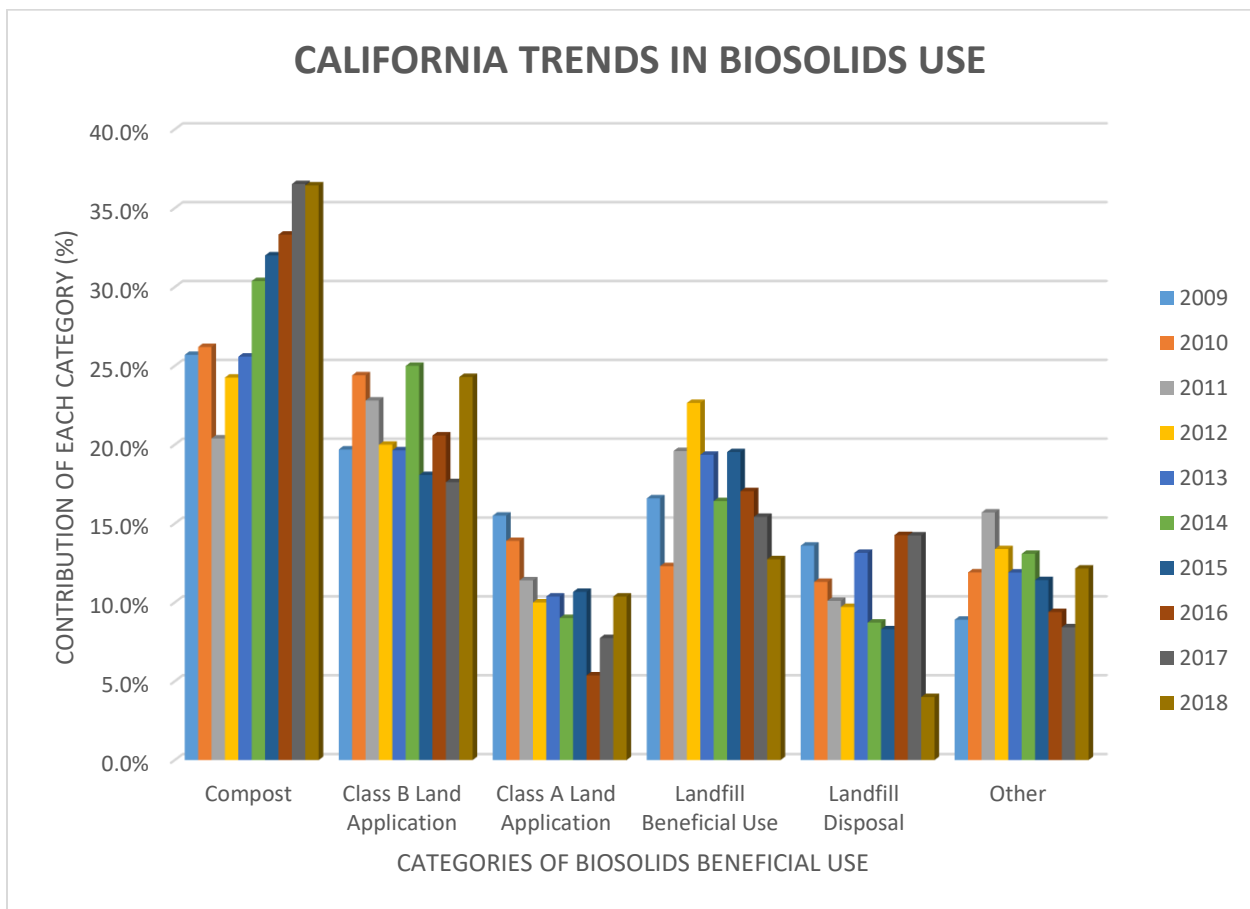


Figure 2. California Trends in Biosolids Use for the Years 2009 to 2018. (Data provided by USEPA Region 9).

Bay Area Trends. Looking solely at the nine county Bay Area, Figure 3 illustrates end uses of biosolids. The primary uses continue to be landfill beneficial use, land application, and incineration, which together account for 84 percent of biosolids end uses in the Bay Area. Compost, landfill disposal, and surface disposal levels remained similar to 2015 percentages.

Tonnage for biosolids conveyed to the Lystek OMRC is categorized as Class A EQ liquid fertilizer and has increased from representing 3.8% of Bay Area biosolids end uses in 2017 to 3.9% in 2018. Several Bay Area agencies send their biosolids to the Lystek OMRC. The OMRC conducts further biosolids processing by utilizing LysteGro technology to create a Class A EQ product. Lystek’s hydrolysis process uses high speed shearing, low pressure steam and alkali in an enclosed reactor to transform sludge or biosolids into a liquid fertilizer. Lystek’s fertilizer program in Solano County began in spring 2017. The following agencies sent material to Lystek in 2019 on a regular basis: Fairfield-Suisun Sewer District, City of Santa Rosa, Central Marin Sanitation Agency, City of Petaluma, San Francisco Public Utilities Commission, City of Benicia, City of Palo Alto, Vallejo Flood & Wastewater District. The East Bay Municipal Utilities Commission and Gualala Community Services District sent material intermittently or on a one time basis.

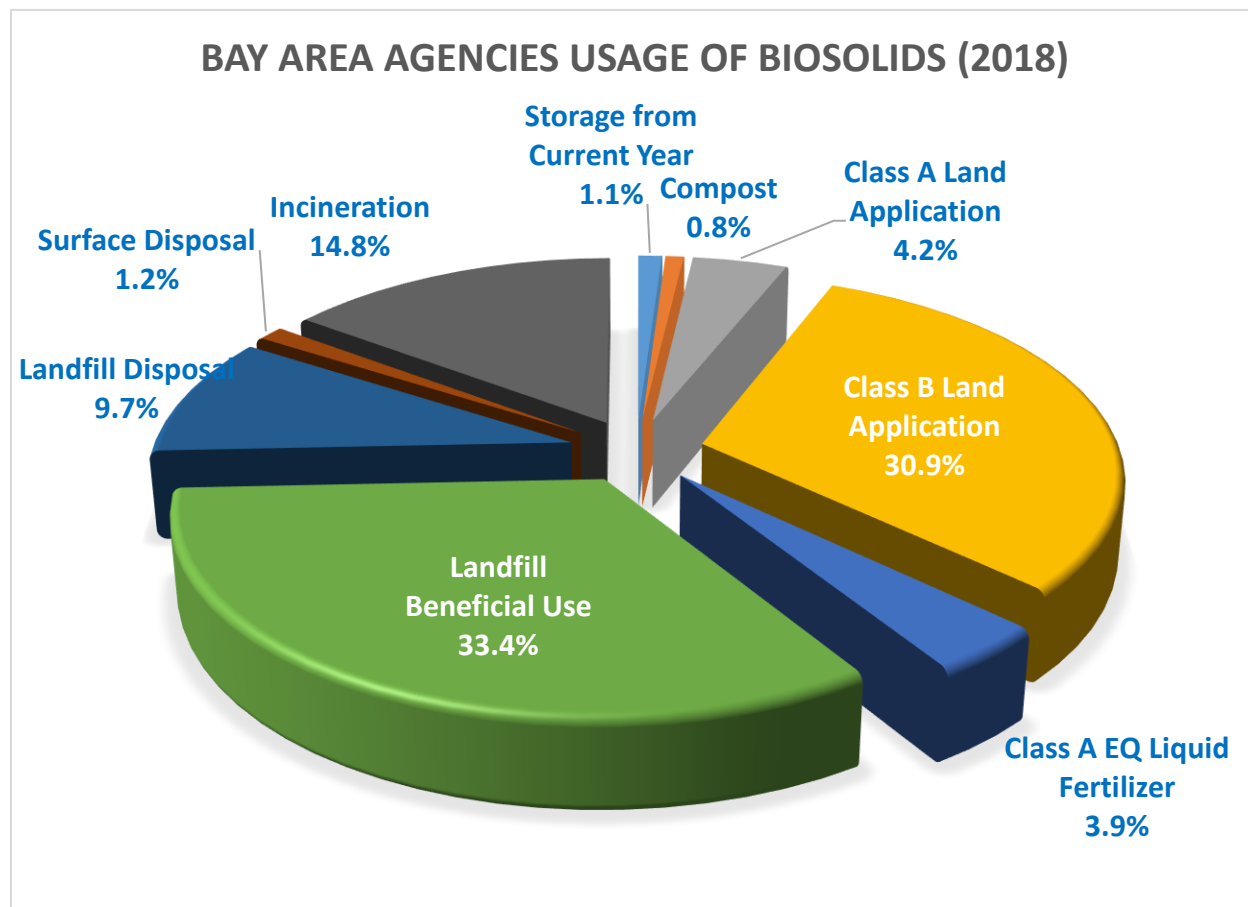


Figure 3. Bay Area Agencies Usage of Biosolids - 2018. (Data Provided by USEPA Region 9).

Counties where biosolids are land applied. Biosolids were applied to agricultural land primarily in five different Northern California counties in 2018 with Solano County ranking third at 10 percent, which is the same as the 2017 proportion. Figure 4 illustrates the distribution of land applied biosolids among the counties.

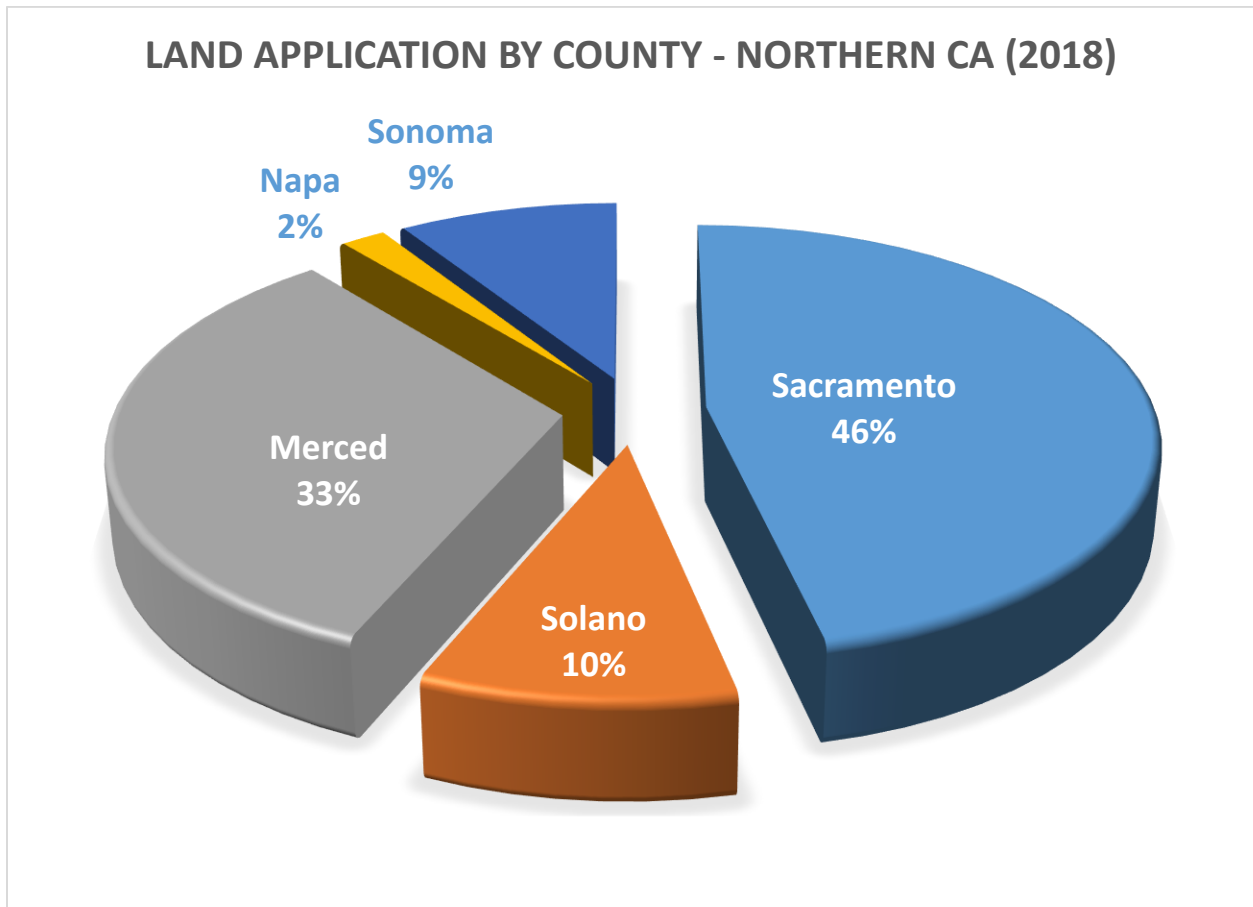


Figure 4. Distribution of Land Application of Biosolids among the top 5 Northern California counties - 2018. (Data provided by individual agencies and Synagro).

Bay Area Regional Efforts

BACWA Biosolids Committee. The mission of the BACWA Biosolids Committee (The Committee) is to support the development and maintenance of cost-effective, sustainable biosolids management options for the more than 140,000 dry metric tons of biosolids produced in the Bay Area annually. The Committee was formed to provide proactive support and information sharing to member agencies on regional biosolids issues, projects, and proposed regulations and legislation.

In 2017, the Committee completed the 2016 Biosolids Trends Survey Report, which is available

at <https://bacwa.org/wp-content/uploads/2017/08/BACWA-2016-Biosolids-survey-report-1.pdf>. BACWA updated and repeated the survey in 2018 to help track changes in biosolids trends over time. The 2018 Biosolids Trends Survey Report is anticipated to be complete in early 2020.

Because of member agencies' level of engagement in the Bay Area Biosolids Coalition at the current time (see below), the Biosolids Committee was placed on hiatus in 2019. The email distribution list will continue to be maintained so that the committee can meet again when there is interest. While meetings are on hiatus, the committee will continue to produce this Annual BACWA Report to Solano County, as well as the Biannual BACWA Biosolids Trends Survey.

Bay Area Biosolids Coalition.

The Bay Area Biosolids (BAB) Coalition originally formed in 2004 when a group of agencies came together to evaluate the feasibility of a regional biosolids management project to avoid the threat of a potential ban on land application of biosolids. By 2008, the membership expanded and the group decided to officially brand itself as the Bay Area Biosolids to Energy (BAB2E) Coalition to take advantage of opportunities anticipated to be developed under new state legislation (specifically, Assembly Bill 32 or AB 32). Assembly Bill 32 was adopted in 2006 requiring the state to reduce greenhouse gas (GHG) emissions to 1990 levels by 2020 (with further reductions through 2050). To achieve GHG reductions, the state created numerous programs incentivizing renewable energy and low carbon fuel production. This legislation served as a driver to prioritize the conversion of biosolids to energy for the BAB2E Coalition.

In 2016, Governor Brown announced five overarching "pillars" by which he planned to achieve the 2030 GHG reduction target under Senate Bill 32 (SB 32), 40 percent below 1990 levels. These pillars recognize that several major areas of the California economy will need to reduce emissions.

1. Reducing petroleum use in cars and trucks by 50 percent
2. Increasing the procurement of electricity derived from renewable sources from 33 to 50 percent
3. Doubling the energy efficiency achieved at existing buildings
4. Reducing the release of short-lived climate pollutants (which includes methane)
5. Increasing land-based carbon sequestration

To enact these pillars, Governor Brown signed legislation that either directly or indirectly impacts the disposal and use of WWTP biosolids at landfills, as well as the diversion of other organic waste streams to WWTPs. In an effort to holistically address biosolids end use options, the BAB2E Coalition re-branded themselves as the Bay Area Biosolids Coalition in 2017. While the Coalition continues to be vigilant in identifying biosolids to energy opportunities, the Coalition has expanded its focus to biosolids end use options that manage additional nutrient loading and produce other value-added products to address the Governor's goals and associated regulations in support of GHG reductions statewide. The updated focus of the BAB

Coalition continues to satisfy the Solano County Code requirements for land application of biosolids.

The Coalition continues to evaluate biosolids management options with the intent of supporting implementation of at least three options within the next two to three years and generate products that can be beneficially used locally in all seasons of the year. The Coalition also continues to pursue a multi-pronged approach that includes:

- Investigating viable, year-long (weather resilient) alternatives to land application that look beyond "biosolids to energy" and seek to responsibly recycle back value-added products of biosolids to the environment.
- Educating the public on biosolids management issues in California through public outreach efforts, including the creation of a public website and securing media coverage.
- Serving as a technology incubator - particularly for pre-commercial technologies.
- Supporting land application in the Bay Area by seeking to create more capacity for biosolids in the Bay Area marketplace.
- Advancing the industry and legislative state of knowledge on biosolids as a valuable resource.

The Coalition has established the following goals in support of achieving the above-mentioned objectives, for which associated strategies and key outcomes have been defined that will be pursued over the next two to three years:

- Communicate the value of biosolids for the purposes of increasing understanding, support, and market demand for biosolids.
- Advance independent scientific research on the safety and efficacy of biosolids to inform science-based regulations, guidelines and best management practices.
- Support and expand biosolids land application in the Bay Area.
- Support the development of diverse, cost-effective, and reliable all-weather biosolids projects for the San Francisco Bay Area.

Current Coalition members are:

City of Millbrae	East Bay Municipal Utility District
City of Petaluma	Fairfield-Suisun Sewer District
City of Pleasanton	Ironhouse Sanitary District
City of San Jose	San Francisco Public Utilities Commission
City of Santa Rosa	Union Sanitary District
Central Marin Sanitation Agency	Vallejo Flood & Wastewater District
Delta Diablo	West County Wastewater District
Dublin San Ramon Services District	

Individual Agency Programs

Individual BACWA agencies are responsible for their own biosolids management programs and each develops its own plan in addition to participating in regional programs. Below are program descriptions from all agencies which sent biosolids to Solano County for agricultural use via land application.

Agencies that land applied Class B biosolids in Solano County either participated in the BAB Coalition and/or converted portion of their biosolids to Class A either through their own means or at a 3rd party conversion facility (e.g., compost facility or Lystek OMRC).

Central Marin Sanitation Agency. The Central Marin Sanitation Agency (CMSA) has a contract with Synagro for land application of its biosolids during the dry weather season in Solano county. CMSA also has contracts in place for sending the biosolids to Redwood Landfill for landfill beneficial use and to Lystek International for further processing to meet Class A biosolids requirements. CMSA is currently serving as the Bay Area Biosolids Coalition lead agency.

City of Calistoga. The City of Calistoga produces biosolids according to 40 CFR regulations. At the Duanweal facility, solids are processed by the treatment methods of thickening and application to drying beds. The material is land applied to various fields in Solano County by Synagro, and a portion of this material is diverted to produce Class A Biosolids at Synagro's Central Valley Compost Site.

Delta Diablo. Delta Diablo produces Class B biosolids and contracts with Synagro for biosolids management. Over 90% of the biosolids are land applied in either Solano, Sacramento or Merced Counties with a portion of the material sent to Synagro's Central Valley Compost facility. Delta Diablo is an active participant in the Bay Area Biosolids Coalition and continues to explore additional and alternative biosolids management options.

East Bay Municipal Utility District. EBMUD produces Class B biosolids. In 2019 approximately 65% of the biosolids was land applied, approximately five percent was composted, and the remainder was used for landfill alternative daily cover. While most of the land application occurred in Merced County, a small portion was land applied in Solano County.

City of Eureka. The City of Eureka's Elk River Wastewater Treatment Plant contracts with Synagro to land apply biosolids to farmland in Solano, Sonoma, and Sacramento Counties. As part of the Synagro contract, Synagro diverts a portion of Eureka's biosolids to the CVC composting facility in Dos Palos, CA where a Class A product is produced. The City of Eureka continues to investigate feasible and cost-effective Class B disposal options as well as Class A processes for the future.

Fort Bragg Municipal District #1. The Fort Bragg Municipal District #1 Wastewater Treatment facility produces Class B bio-solids according to 40 CFR regulations. During the construction of our new Aero-Mod Activated sludge plant we have contracted with Synagro to manage our bio-solids. Synagro transported a portion of our bio-solids to their Central Valley Compost (CVC) site to be further processed into Class A Bio-solids.

Ironhouse Sanitary District. The Ironhouse Sanitary District (ISD) produces biosolids according to 40 CFR regulations. ISD's Water Recycling Facility is designed to produce Class B biosolids. In 2019, 1,057 wet tons of ISD's biosolids were land applied to various fields in Solano County by Synagro and 23 wet tons were sent to Central Valley Composting to be composted for Class A transformation. ISD is currently a member agency of the Bay Area Biosolids Coalition.

San Francisco Public Utilities Commission (Southeast and Oceanside WPCPs). The San Francisco Public Utilities Commission (SFPUC) marked its nineteenth consecutive season of land application of biosolids for agricultural use in Solano County. Inspectors from the SFPUC perform land application inspections in Solano County to ensure that the contractors are following local regulations. The SFPUC also contracts with Synagro to land apply Class B biosolids in Sacramento County and with Lystek to produce a Class A EQ liquid fertilizer. A portion of biosolids are used for alternative daily cover at the Potrero Hills landfills. The SFPUC is an active participant in the Bay Area Biosolids Coalition.

Town of Windsor. The Town of Windsor Water Reclamation Facility contracts with Synagro to land apply biosolids to farmland in Solano and Sacramento Counties. As part of the Synagro contract, Synagro diverts a portion of its biosolids to its Merced County facility for composting. The Town of Windsor continues to investigate feasible and cost-effective Class B biosolids treatment and process options.

Union Sanitary District. Union Sanitary District (USD) beneficially used most of its biosolids in 2019 and met all USEPA regulations for the 26th consecutive year. USD continues to contract with Synagro for its biosolids management, with nearly 70 percent of USD's biosolids land-applied to farmland in Sacramento, Merced and Solano Counties. Approximately 4 percent of biosolids were sent to a Landfill in Solano County related to digester cleaning. Approximately 30 percent of biosolids production was delivered to Merced County for producing Class A compost. USD is one of 19 Bay Area wastewater utilities actively participating in the Bay Area Biosolids Coalition.

RESOLUTION NO. XXX

RESOLUTION COMMENDING ROBERTA L. (BOBBI) LARSON

FOR HER DEDICATED SERVICE TO THE CALIFORNIA ASSOCIATION OF SANITATION AGENCIES (CASA) AND TO THE CALIFORNIA WASTEWATER COMMUNITY

WHEREAS, **Roberta L. Larson** received her BA in Political Science from the University of California at Riverside in the 1980s and was later hired by the Union Sanitary District, a publicly owned wastewater treatment plant in California; and

WHEREAS, after exemplary service as the Government Affairs Analysts for Union Sanitary District, Bobbi was hired as the 1st Director of Regulator Affairs for CASA in 1992; and

WHEREAS, after dedicated service to CASA Bobbi recognized the value of having a legal background to be more effective in the environmental arena, she continued her education and graduated from law school in 1997; and

WHEREAS, after passing the bar Bobbi practiced law with an esteemed California firm for two years before returning to CASA as the Director of Legal and Regulatory Affairs; and

WHEREAS, due to her outstanding performance, Bobbi was appointed by the CASA Board as the very first dedicated Executive Director in 2012; and

WHEREAS, under Bobbi's leadership CASA established an employer business model in 2013 with five full-time staff; and

WHEREAS, in 2016 Bobbi led the effort to rebrand CASA with a new logo and web site to update the CASA image; and

WHEREAS, by 2018 Bobbi had recognized the value to the CASA members of having a full-service dedicated staff, she added the 1st in-house legislative liaison as well as new regulatory and legislative analysts; and

WHEREAS, Bobbi was a founding member of the State-wide wastewater collaborative known as the Summit Partners and led the group for over 10 years

WHEREAS, over her many years of service Bobbi has been a true collaborator with BACWA and supporter of the wastewater communities' interests, engaged in and leading efforts on a wide array of topics including recycled water, toxicity, waste discharge requirements, Infrastructure funding, biosolids beneficial reuse, recourse recovery, nutrients, compounds of emerging concern, permitting issues, climate change, and a host of other policy issues, and

WHEREAS, over her many years of service, Bobbi has touched countless individuals in the water industry as a teacher, mentor, supporter, adviser, collaborator and friend.

NOW, THEREFORE, IT BE RESOLVED that Roberta L. Larson is hereby commended for her distinguished service and leadership in CASA and the water industry for over three decades, resulting in the continued success of CASA as a high-performance, innovative, and fiscally responsible organization that promotes and helps protect the public health and the environment every day.

PASSED AND ADOPTED THIS 20TH DAY OF DECEMBER, 2019.

Lori Schectel

Chair of the Bay Area Clean Water Agencies Board of Directors

Amit Mudsuddy

Eileen White

Jackie Zipkin

Amy Chastain

COUNTERSIGNED

David R. Williams

Executive Director

In Recognition of

Roberta L Larson

FOR

Eight Years of Dedicated Service as the Executive Director of the
California Association of Sanitation Agencies (CASA) and Appreciation for Her
Collaborative Spirit in Working with Bay Area POTWs



CASA Executive Director

2012 – 2019

Presented by

Bay Area Clean Water Agencies





**CY20 BACWA EXECUTIVE BOARD
PROPOSED REGULAR MONTHLY MEETING SCHEDULE**

DATE	TIME	LOCATION
January 10, 2020 <i>Annual Members Meeting</i>	9:00 – 3:00	Scottish Rite Center
February 21, 2020	9:00 – 12:30	SFPUC, Hetch Hetchy Room
March 20, 2020	9:00 – 12:30	EBMUD HQ, 2 nd Floor Large Training Room
April 17, 2020	9:00 – 12:30	SFPUC, Hetch Hetchy Room
May 15, 2020	9:00 – 12:30	EBMUD HQ, 2 nd Floor Large Training Room
June 19, 2020	9:00 – 12:30	SFPUC, Hetch Hetchy Room
July 17, 2020	9:00 – 12:30	EBMUD HQ, 2 nd Floor Large Training Room
August 21, 2020 <i>(Short Regular Board Meeting- Pre-Pardee Tech Seminar</i>	8:30 – 9:00 9:00 – 4:00	SFPUC, Hetch Hetchy Room EBMUD Pardee Reservoir Facility
September 24-25, 2020 <i>(Pardee Tech Seminar – no regular Board meeting in September</i>	TBD	
October 16, 2020	9:00 – 12:30	EBMUD HQ, 2 nd Floor Large Training Room
November 20, 2020	9:00 – 12:30	SFPUC, Hetch Hetchy Room
December 18, 2020 <i>(Holiday & Committee Leadership Appreciation Lunch)</i>	9:00 – 12:30 12:30 – 2:00	EBMUD HQ, 2 nd Floor Large Training Room

Special Board Meetings to be scheduled in CY20:

Joint BACWA/San Francisco Bay Regional Water Board meetings are planned for) January, March, May, and July, September (Pardee), November, and other dates as needed.

Committee Notes are available [online](#).

20 attendees representing 13 member agencies

Water Board Report-out

P2 Reports are due at the end of February. This year's P2 Award will be given to Geoff Brosseau in December.

Budget update

There was a discussion about different agencies' approaches to permitting or disallowing alkaline hydrolysis, the chemical decomposition and disposal into the sewer of human or animal remains. There is a consensus that it is a public relations challenge for agencies with recycled water programs. There may not be a technical argument to disallow it, but FOG discharges are a concern.

Mobile Washers

Autumn Cleave, SFPUC, gave a [presentation](#) on developing SFPUC's mobile washer general permit. She discussed the importance of stakeholder involvement in program's development, particularly vector control agencies. SFPUC is unique due to its combined sewer system, where all dry weather flows are directed to the wastewater treatment plant. San Francisco brought together a multi-departmental effort to develop best practices for mobile washers. There was a discussion in committee about whether to enforce against the property owner or the mobile washer when storm drains are used for discharge. Committee members discussed the benefit of having a general permit for mobile washers, rather than individual permits.

Budget

The FY20 committee budget is approximately 34% spent. The Steering Committee is proposing using unused budget to extend the flea and tick campaign through SGA.

Next BAPPG Meeting

BAPPG General Meeting

February 5, 2020: 10:00am-12:00pm

Committee Request for Board Action: none

18 attendees representing 12 member agencies

Presentation by ELAP Staff on Draft Regulations

Christine Sotelo, ELAP Chief, was joined by the Assistant Deputy Director Robert Brownwood, Technical Senior, Jacob Oaxaca, and technical staff, Andrew Hamilton to give a [presentation](#) on the draft ELAP regulations. As in previous drafts, the State proposes to adopt the 2016 TNI standards with two fairly minor exceptions. The meeting included a discussion with the committee on specific issues, including the following:

- The draft regulations require laboratories to submit a report from the most recent on-site assessment **with** their application for certificate renewal, instead of scheduling assessments after renewal. ELAP will require third-party auditors for laboratories using “sophisticated technology”, including ICP and GCMS. There are concerns that there are not sufficient assessors in the State of California for all the accredited labs. State Water Board staff responded that ELAP has identified four firms qualified for these audits, including one firm based in California. .
- A fee structure is being proposed through a separate rulemaking process, but with the same timeline as the ELAP regulations.
- The committee requested that ELAP provide clarity on what constitutes a Field of Accreditation (FOA), particularly when the FOA list in the Methods Update Rule is not harmonized with EPA’s standard methods. SWB responded that in the future, updates will occur more quickly so this should be a problem. The committee recommended that language be included in the regulations to default to Standard Methods in case there are discrepancies.
- The enforcement provisions do not provide for the due process described in the Health and Safety Code (e.g. the right to hearing), nor do they distinguish which offenses will result in correctable findings versus the three enforcement actions (denial of accreditation, citation and fines, or revocation/suspension of accreditation) described in the regulations. How does ELAP plan to distinguish between different levels of sanctions, given that the regulations describe the same set of deficiencies as a basis for the different sanctions? SWB staff responded that they will work with attorneys in the Office of Enforcement to determine appropriate enforcement actions.
- The section on qualifications for Technical Director has only one “grandfather clause”, which requires continuous employment in the lab since 1994. The committee recommends adding a clause that if a person qualifies as a Technical Manager under the TNI standards, then they qualify under ELAP.
- Section 64812.05.d requires labs to follow Title 22 regulations on Hazardous Waste. Are ELAP auditors competent to assess compliance with these regulations? Also, H&S Code 25200.3.1 contains provisions that are not in Title 22 that apply specially to labs. Why does ELAP want to get into this business? Why not just refer potential non-compliance to the CUPA with jurisdiction?
- ELAP plans to provide training materials and staff to answer agencies’ questions.
- TNI won’t kick in until 2023, but onsite assessments will be required as part of the certification process as soon as the regulations become effective.

The public hearing will be December 18, and comments are due December 20 at noon. Adoption is scheduled for early 2020, with a proposed effective date of July 1, 2020.

Next meeting: February 11, 2019

Committee Request for Board Action: Submit comments on EPA's Draft National Water Reuse Action Plan

Detailed notes from meetings are posted [online](#).

19 attendees (including 9 on phone) representing 10 member agencies

Ocean Protection Council 5-Year Plan

The California Ocean Protection Council (OPC) recently released their Draft 5-year Plan, which includes a provision to set a target date by 2022 for phasing out coastal discharges into the ocean, with the intent of achieving an 80-100% reduction in ocean discharges by 2040. The goal is included as part of Objective 1.2 which seeks to "Minimize Causes and Impacts of Ocean Acidification and Hypoxia." Previous drafts of the OPC's priorities gave no indication this type of provision related to ocean discharge would be included in the 5 year plan. The draft plan had been planned for adoption on November 13th, however, adoption was postponed until February 2020 following stakeholder requests for an extension. BACWA is working with CASA to develop a comment letter raising concerns about the goal to phase out coastal discharges. Because of the potentially major impacts of such a mandate, BACWA recommends that its member agencies also submit individual letters to the OPC on how a mandate to eliminate coastal discharges would affect their facilities. Comments are now due on December 13. Talking points that the committee recommends be included in the letter are:

- The most important driver for recycled water projects should be to meet water use demand, not to reduce pollutant discharges to receiving waters.
- The idea that recycling can reduce pollutant loading to the Ocean misses the reality of how recycled water is produced. To achieve the high levels of reuse that are envisioned as part of the Strategy, it would be necessary to plan for potable reuse. The State Water Board is still developing criteria for potable reuse, but it is almost certain that any treatment train producing recycled water for potable reuse would include reverse osmosis. Reverse osmosis transfers most of the pollutant load from the feed water into a concentrate comprising approximately 15 percent of the feed water volume. This concentrate would then need to be discharged to a receiving water, thus retaining most of the pollutant load that would have been discharged absent the reuse project.
- Irrigation reuse projects do remove pollutant loads from discharge, but demands are seasonal in nature. Any recycling goal need to recognize that wet and dry weather recycled water production must be considered separately, and that a year round 100 percent discharge prohibition would be impossible.
- Nutrients in Region 2 are governed by the Nutrient Watershed Permit. In compliance with the first Nutrient Watershed Permit, BACWA performed a study looking at opportunities for nitrogen load reduction by optimization and upgrades at agencies that discharge to the SF Bay. The cost of implementing upgrades at all the permitted agencies was estimated at over \$10 billion.
- BACWA is engaged with the SF Bay Regional Water Board and other stakeholders in the Nutrient Management Strategy. Because of the high cost of nutrient reduction, it is important that management decisions made are based on our understanding of the science. BACWA is currently contributing \$2.2M per year to SFEI to support scientific studies of the impacts of nutrient on the SF Bay.
- Lack of funding availability is the largest barrier to recycled water implementation in the State. As part of the second Nutrient Watershed Permit, BACWA is engaged in a Regional Recycled Water Evaluation. This Evaluation will both estimate the potential nutrient reductions that would result from agencies' current and planned recycled water projects, and will also provide a cost estimate for implementing those planned projects.

Transition to State General Order

There is a meeting at DWQ on Dec 10 to give a progress update on Recycled Water Policy implementation. This will include recycled water reporting. Melissa Gunther will report back from Dec 10 meeting that will finalize approach for transition. Maggie Mognahan from Region 2 will take the lead on NOAs for enrolling 96-011 Permittees.

SWRCB's Order No. WQ 2019-0037-Exec: monitoring and reporting

This Order supersedes previous reporting requirements for recycled water. The requirements are being included in new NPDES permits. The committee raised questions about how know if this applies to a particular agency prior to permit reissuance. The committee will ask Regional Water Board staff how this will be implemented and request an update at the January meeting.

EPA's Draft National Water Reuse Action Plan

On September 10, EPA released National Reuse Action Plan. The Plan identifies a spectrum of needs nationally, for reuse support. The Draft Plan will seek to identify the most important actions. The Final Plan will include commitment to provide actions. The comment deadline is December 16. The committee recommended that BACWA develop a comment letter asking for justification on Action 2.2.13, *Enhance Combined Sewer Overflow/Sanitary Sewer Overflow Abatement Strategies*, with a recommendation to clarify or redirect that action. There was a question on whether it is a backdoor effort to eliminate ocean discharges. The letter should also explain that funding is the limiting factor for recycled water projects, and that EPA could encourage and support interagency coordination.

Next Meeting – Tuesday, January 21, 2020, 10:30 am to 12:30 pm, EBMUD Small Training Room

Executive Director's November 2019 Report

NUTRIENTS:

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

- Coordinated with the NMS Science Manager on presentations, meetings, and key issues on nutrients.
- Coordinated with SFEI on the Scoping and Evaluation Plan for the Nature Based Solution Study required by the Watershed permit.
- Attended the 41st Meeting of the NMS Planning Subcommittee and provided minutes of the meeting.
- Attended meeting with the Water Board and SFEI on developing the workplan for Assessment Framework 2.0.
- Coordinated with HDR consultant team on the Scoping and Evaluation Plan for the Regional Recycled Water Report required under the 2nd Watershed Permit.
- Coordinated with HDR in planning for the next Group Annual Report

BACWA BOARD MEETING AND CONFERENCES:

- Worked with staff in preparing for the November monthly Board Meeting.
- Conducted the monthly agenda review with the Chair of BACWA
- Held the November Board of Directors meeting.
- Continued to track all action items to completion.

ASC/SFEI:

- As the Chair of the Governance Committee, coordinated with the SFEI Executive Director on committee activities.

COLLECTION SYSTEM COMMITTEE:

- Coordinated with the RPM on planning for the next Collection System Committee meeting
- Coordinated with BACWA staff on the collaborative effort amongst CASA, SCAP and BACWA on continuing to inform the SWRCB on issues with the proposed SSS WRD.

FINANCE:

- Reviewed the monthly BACWA financial reports with the AED.
- Worked with the AED to track status of revenues received from the membership for payment of the annual invoices.
- Coordinated with the consultant on the internal audit report

-Coordinated with BACWA partners on disposition of the remaining funds in the IRWM account.

PERMIT COMMITTEE:

- Coordinated with the RPM for items to agendaize for the next Permit Committee meeting.
- Coordinated with partners in the SCAP lawsuit on challenging the validity of use on the TST in permits
- Coordinated with CASA and SCAP on commenting on the upcoming PFAS monitoring program
- Coordinated with the consultant on completing the chlorine residual Basin Plan Amendment (BPA)

LAB COMMITTEE:

-Participated in the ELAP conference call to strategize on the upcoming public workshop and comment letter on the proposed regulations.

BAPPG COMMITTEE:

-Coordinated with the RPM on the next steps for preparation of the CEC White Paper.

COLLABORATIONS:

- Coordinated with CASA Regulatory Program Manager and Executive Director on regulatory issues of mutual concern.
- Continued serving as contract administrator for a research effort with UC Merced.
- Represented BACWA at the SFEP Implementation Committee's Strategic Planning session.

WOT:

-Worked with the Executive Committee to plan the direction of the BACWWE program.

BACC:

-Coordinated with DSRSD on the transfer of the Bay Area Chemical Consortium activities to BACWA.

MANAGER'S ROUNDTABLE:

-Planned for the January quarterly Bay Area Manager's Roundtable Meeting.

ADMINISTRATION:

- Planned for and conducted the monthly BACWA staff meeting to prepare for the Board Meeting and to coordinate and prioritize activities.
- Signed off on invoices, reviewed correspondence, prepared for upcoming Board meetings, responded to inquiries on BACWA efforts, oversaw updating of web page and provided general direction to BACWA staff.
- Worked with the RPM in the preparation of the monthly BACWA Bulletin.
- Coordinated with the RPM to plan activities and review duties, schedules, and priorities.
- 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:

- BACWA Chair and Committee Chairs on items that arose during the month
- Water Board staff on coordinating the nutrient activities
- Other miscellaneous calls and inquiries regarding BACWA activities
- Participated in coordination calls with the consultants working on the reports required under the 2nd Watershed Permit.
- Responded to Board members requests for information
- Met with perspective candidates interested in the BACWA Executive Director's position.



BACWA ACTION ITEMS

Number	Subject	Task	Responsibility	Deadline	Status
Action Items from November 15, 2019 BACWA Executive Board Meeting					
2019.8.33	Submittal of NBS Scoping Plan	Review comments submitted to BACWA by 11/22/19	ED/RPM	11/27/2019	complete
2019.8.32	Scoping & Evaluation Plans	Place both Scoping & Evaluation Plans on Agenda for Joint Meeting with Water Board 1/8/19	ED		complete
2019.8.31	Annual Meeting supplies	Water bottles, name tags, lanyards, table stands	AED	12/15/2019	complete
2019.8.30	Add blurb to Bulletin	Write letters with language supplied by CASA RE: Hertzburg letter	RPM		complete
2019.8.29	Comments on OPC		ED	12/13/2019	complete
2019.8.28	SFEI QA/QC, staffing/recruitment, succession plan	Put on Agenda for next NMS Steering Committee Meeting	ED	12/13/2019	complete
2019.8.27	HAB-type EPA Projects Funding	Grant funding available - submit proposals by 12/10/19	RPM	12/10/2019	complete
2019.8.26	USEPA Draft Natl Water Reuse Plan	Formal comment period closes in December	ED	12/9/2019	complete
2019.8.25	IRWMP Funds	Redistribute for use	ED		complete
2019.8.24	CEC White Paper	Connect with Tom before Joint Water Board meeting	RPM	1/7/2020	complete
2019.8.23	CEC White Paper Question #4	Revise - broaden before submitting	RPM		complete
2019.8.22	TNI Rulemaking	Comment letter ready to go by 12/20 Board meeting - Letter due by 12/21/19	RPM	12/19/2019	complete
2019.8.21	ELAP	Whether or not to have Legal review to be determined/Summit Partners reviewing?	ED		complete
2019.8.20	Pardee Dates	Confirm September 24-25, 2020 with Pardee	AED	11/18/2019	complete
2019.8.19	Annual Meeting script	Provide script/talking points/short bios to Annual Meeting Board member moderators	ED	12/12/2019	complete
2019.8.18	CASA ED Recognition	Plaque and resolution to be ready for December meeting for presentation at January CASA	ED	12/12/2019	complete

Action Items Remaining from Previous BACWA Executive Board Meetings					
2019.8.12	BAAQMD Permit Backlog	Set up separate meeting to discuss with Air District management	RPM/ED	11/30/2019	pending
2019.7.05	Sewer Rate Survey	Post as Google Sheet, and publicize update	RPM	8/31/2019	pending
2018.4-93	Website Policy	Add reference to regulatory requirements for Agency websites	ED	4/30/2019	pending

FY20: 30 of 33 Action Items completed
 FY19: 109 of 110 action Items completed
 FY18: 66 of 66 Action Items completed
 FY17: 90 of 90 Action Items completed



DATE	AGENDA
<p style="text-align: right;">12/20/2019</p> <p>Monthly Board Mtg Items due: 12/9</p> <p>Schectel, Mutsuddy, White, Zipkin, Chastain</p> <p>Williams; Fono; O'Neill</p> <p>HOLIDAY & COMMITTEE LEADER APPRECIATION LUNCH</p>	<p>Consent</p> <p>Previous Board Meeting Minutes Monthly Financial Report</p> <p>Authorizations & Approvals</p> <p>Other Business - POLICY/STRATEGIC</p> <p>Discussion: Water Board Jt Mtg Debrief Discussion: Update on CASA Climate Change Program</p> <p>Other Business - OPERATIONAL</p> <p>Discussion: Annual Meeting Agenda Discussion: Budget Schedule & Key Issues Discussion: ED Recruitment</p> <p>Reports</p> <p>Committee Reports (Committee Chairs) Board Reports (Executive Board) ED Report (ED) RPM Report (RPM) Other BACWA Representative Reports</p>
<p style="text-align: right;">1/8/2020</p> <p>Joint Meeting - Water Board</p> <p>Schectel, Mutsuddy, White, Zipkin, Chastain</p> <p>Williams; Fono</p>	<p>Other Business: Discussions</p>
<p style="text-align: right;">1/10/2020</p> <p>Annual Members Mtg</p> <p>Schectel, Mutsuddy, White, Zipkin, Chastain</p> <p>Williams; Fono; O'Neill</p>	<p>Service & Leadership Recognition</p> <p>RMP & NMS Update</p> <p>EPA, CWRCB, RWCB, Air Dist,</p>
<p style="text-align: right;">2/21/2020</p> <p>Monthly Board Mtg Items due: 2/9</p> <p>Schectel, Mutsuddy, White, Zipkin, Chastain</p> <p>Williams; Fono; O'Neill</p>	<p>Consent</p> <p>Previous Board Meeting Minutes Monthly Financial Report</p> <p>Authorizations & Approvals</p> <p>Approval:</p> <p>Other Business - POLICY/STRATEGIC</p> <p>Discussion: Pesticides Update Discussion: Joint Meeting Debrief</p> <p>Other Business - OPERATIONAL</p> <p>Discussion: Budget Planning - 1st Draft of FY21 Budget Discussion: Annual Meeting Debrief</p> <p>Reports</p> <p>Committee Reports (Committee Chairs) Board Reports (Executive Board) ED Report (ED) RPM Report (RPM) Other BACWA Representative Reports</p>

<p>3/20/2020</p> <p>Monthly Board Mtg Items due: 3/8</p> <p>Schectel, Mutsuddy, White, Zipkin, Chastain</p> <p>Williams; Fono; O'Neill</p>	<p>Consent</p> <p>Previous Board Meeting Minutes Monthly Financial Report</p> <p>Authorizations & Approvals</p> <p>Other Business - POLICY/STRATEGIC</p> <p>Discussion: Water Board Jt Mtg Debrief Discussion: Update on CASA Climate Change Program</p> <p>Other Business - OPERATIONAL</p> <p>Discussion: Second Draft of FY21 Budget Discussion: Draft BACWA Policy on Website</p> <p>Reports</p> <p>Committee Reports (Committee Chairs) Board Reports (Executive Board) ED Report (ED) RPM Report (RPM) Other BACWA Representative Reports</p>
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<p>3 or 4/?/2020</p> <p>Joint Meeting - Water Board</p> <p>Schectel, Mutsuddy, White, Zipkin, Chastain</p> <p>Williams; Fono</p>	<p>Other Business: Discussions</p>
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<p>4/17/2020</p> <p>Monthly Board Mtg Items due: 4/5</p> <p>Schectel, Mutsuddy, White, Zipkin, Chastain</p> <p>Williams; Fono; O'Neill</p>	<p>Consent</p> <p>Previous Board Meeting Minutes Monthly Financial Report</p> <p>Authorizations & Approvals</p> <p>Approval: FY21 Budget</p> <p>Other Business - POLICY/STRATEGIC</p> <p>Discussion: Draft Agenda Water Board Jt Mtg</p> <p>Other Business - OPERATIONAL</p> <p>Discussion: Update on BAAQMD Regulations Discussion: Update on regional and statewide biosolids issues Discussion: NBWA Conference Debrief</p> <p>Reports</p> <p>Committee Reports (Committee Chairs) Board Reports (Executive Board) ED Report (ED) RPM Report (RPM) Other BACWA Representative Reports</p>
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<p>5/15/2020</p> <p>Monthly Board Mtg Items due: 5/3</p> <p>Schectel, Mutsuddy, White, Zipkin, Chastain</p> <p>Williams; Fono; O'Neill</p>	<p>Consent</p> <p>Previous Board Meeting Minutes Monthly Financial Report</p> <p>Authorizations & Approvals</p> <p>Approval: SFEI NBS SOW, TDC amendment, Committee Policy Authorization (ED): Legal & IT Support Amendments FY19</p> <p>Other Business - POLICY/STRATEGIC</p> <p>Discussion: Water Board Jt Mtg Planning Discussion: BAAQMD meeting planning Discussion: NMS update</p> <p>Other Business - OPERATIONAL</p> <p>Reports</p>
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Committee Reports (Committee Chairs)
Board Reports (Executive Board)
ED Report (ED)
RPM Report (RPM)
Other BACWA Representative Reports

6/19/2020 Consent

Monthly Board Mtg

Items due: 6/7

Schectel, Mutsuddy, White, Zipkin, Chastain

Williams; Fono; O'Neill

Previous Board Meeting Minutes
Monthly Financial Report

Authorizations & Approvals

Approval: FY21 Agreements
Approval: Officers: Chair & Vice-Chair FY21

Other Business - POLICY/STRATEGIC

Discussion: Nutrient Removal through BAC in RO Concentrate
Discussion: Water Board Jt Mtg Draft Agenda

Other Business - OPERATIONAL

Discussion: AED recruitment

Reports

Committee Reports (Committee Chairs)
Board Reports (Executive Board)
ED Report (ED)
RPM Report (RPM)
Other BACWA Representative Reports

?/?/2020

Joint Meeting - Water Board

Schectel, Mutsuddy, White, Zipkin, Chastain

Williams; Fono

7/17/2020

Items due: 7/5

Schectel, Mutsuddy, White, Zipkin, Chastain

Williams; Fono; O'Neill

Monthly Financial Report

Authorizations & Approvals

Approval: Annual Nutrient WS Payment
Approval: FY21 Agreements
Approval: BACWA Biennial Conflict of Interest Code Review

Other Business - POLICY/STRATEGIC

Discussion: Nutrient Removal through BAC in RO Concentrate
Discussion: Biosolids Update
Discussion: PFAS update Update
Discussion: Microplastics policy discussion (5Gyres and SFEI)

Other Business - OPERATIONAL

Discussion:

Reports

Committee Reports (Committee Chairs)
Board Reports (Executive Board)
ED Report (ED)
RPM Report (RPM)
Other BACWA Representative Reports

8/21/2020 Consent

Page 3

Monthly Board Mtg

Items due: 8/9+A201

Schectel, Mutsuddy, White, Zipkin, Chastain

Williams; Fono; O'Neill

Previous Board Meeting Minutes

Monthly Financial Report

Authorizations & Approvals

Approval:

Other Business - POLICY/STRATEGIC

Discussion: Water Board Jt Mtg Debrief

Discussion: Nutrient removal from RO concentrate by BAC

Discussion: Agenda for AIR meeting with BAAQMD on 9/3

Discussion: CASA Climate Change update

Other Business - OPERATIONAL

Discussion: Pardee Agenda

Reports

Committee Reports (Committee Chairs)

Board Reports (Executive Board)

ED Report (ED)

RPM Report (RPM)

Other BACWA Representative Reports

9/24-25/2020 No Board Actions Permitted

Pardee Technical Seminar

Schectel, Mutsuddy, White, Zipkin, Chastain

Williams; Fono; O'Neill

10/16/2020 Consent

Monthly Board Mtg

Items due: 10/4

Schectel, Mutsuddy, White, Zipkin, Chastain

Williams; Fono; O'Neill

Previous Board Meeting Minutes

Monthly Financial Report

Authorizations & Approvals

Approval:

Other Business - POLICY/STRATEGIC

Discussion: Pardee Debrief & Survey

Discussion: RABAC Presentation (Standford)

Other Business - OPERATIONAL

Discussion: ED Recruitment

Reports

Committee Reports (Committee Chairs)

Board Reports (Executive Board)

ED Report (ED)

RPM Report (RPM)

Other BACWA Representative Reports

11/15/2019 Consent

Monthly Board Mtg

Items due: 11/8

Schectel, Mutsuddy, White, Zipkin, Chastain

Williams; Fono; O'Neill

Previous Board Meeting Minutes

Monthly Financial Report

Authorizations & Approvals

Approval: Adoption of FY19 Annual Reports

Other Business - POLICY/STRATEGIC

Discussion: Risk reduction update

Discussion: Water Board Jt Mtg Draft Agenda

Discussion: ReNUWIt Industrial Advisory Board Meeting Debrief

Other Business - OPERATIONAL

Discussion: Annual Meeting Planning

Reports

Committee Reports (Committee Chairs)
Board Reports (Executive Board)
ED Report (ED)
RPM Report (RPM)
Other BACWA Representative Reports

***CURRENTLY UNSCHEDULED &
SIGNIFICANT***

Suggestions for Monthly Meeting Guest Speakers/Presenters



Regulatory Program Manager's Report to the Board

November 2019

NUTRIENTS: Review of draft and final Scoping and Evaluation Plans for RW Evaluation and NBS study.

BACWA BULLETIN: Drafted and distributed November Bulletin.

COLLABORATIONS: Worked with ReNUWIIt on BoR grant.

CECs: Updated draft White Paper. Discussed options for POTW CEC monitoring with SFEI staff.

CHLORINE RESIDUAL: Worked with consultant to collect information on chlorine and SBS use.

COMMITTEE SUPPORT:

Asset Management Infoshare – Discussed rebooting committee with potential Chair.

BABC – Attended meeting and drafted notes. Discussed budget with Project Manager.

BAPPG – Drafted Board Report, and delivered extension request for pyrethroids sampling to EPA.

Biosolids – Solicited information for 2019 Solano County biosolids application report and began drafting report.

Collection Systems – Drafted Board report. Scheduled speaker for 1/30 Collection Systems Committee meeting.

Laboratory – Held conference call with committee on BACWA comments on ELAP regulations.

O&M Infoshare – Drafted Board report.

Permits – Planned December meeting.

Recycled Water – Attended meeting and performed follow-up communications. Reviewed EPA's Draft National Water Reuse Action Plan.

Executive Board – Worked to plan Executive Board meeting and prepare packet. Attended meeting Reviewed and edited EB minutes and action items. Drafted agenda for 1/8 joint Meeting with Regional Water Board.

ADMINISTRATION/STAFF MEETING – Met with BACWA staff to plan Executive Board meeting, and discuss BACWA operations. Managed committee Google Groups. Worked with AED to provide training on BACWA operations.

MEETINGS ATTENDED:

BACWA staff meeting (11/1), BABC meeting (11/6), BAPPG Steering Committee Call (11/12), Lab Committee call on ELAP Regs (11/14), Executive Board Meeting (11/15), Recycled Water Committee (11/19), Call with RMP on CECs monitoring (11/21).