BACWA
BAY AREA
CLEAN WATER
AGENCIES

Executive Board Meeting
AGENDA
Fri, October 16, 2020 9:00 AM - 12:30 PM (PDT)
https://zoom.us/j/92500766200?pwd=MjRUNkJuVVV5T1RudHlTNmJwWlluQT09
You can also dial in with your phone +1 669 900 9128 US
Meeting ID: 925 0076 6200
Passcode: 486505

Agenda Item			Time	Pages
ROLL CALL, INTRODUCTIONS, AND TELECONFERENCE ETIQUETTE			**9:00 AM**	
PUBLIC COMMENT	Guidelines		**9:03 AM**	
CONSIDERATION TO TAKE AGENDA ITEMS OUT OF ORDER			**9:04 AM**	
CONSENT CALENDAR			**9:05 AM**	
1 August 21, 2020 BACWA Executive Board Meeting Minutes				**3-10**
2 September 17-18 Special BACWA Executive Board Meeting Minutes				**11-17**
3 August 2020 Treasurer's Reports				**18-27**
APPROVALS AND AUTHORIZATIONS			**9:12 AM**	
4 Approval: SGS AXYS Contract for $60,932 , PFAS Phase I study analytical costs				**28-41**
5 Authorization: EOA Contract for FY21 ($3,600) Chlorine BPA support				**42-46**
POLICY/STRATEGIC			**9:30 AM**	
6 Discussion: Debrief from Online Pardee meeting				
7 Discussion: Nutrients				
a. Regulatory				
i. Outcomes from Online Pardee NST meeting				
ii. Communicating Competing Priorities relative to nutrient reduction				
b. Technical Work				
i. Draft RFP for technical review support - final review				**46-56**
ii. Formation of BACWA Nutrient Technical Team - mission and timing				
iii. Support for Hazen & Sawyer Proposal: Linking Nutrient Reductions to Receiving Water Responses (RFP 5078)				**57-56**
c. Governance Structure				
i. September 11 Steering Committee meeting summary				**67-71**
ii. September 2 PSC meeting notes				**72-74**
iii. October 7 PSC meeting notes				**75-78**
8 Discussion: Region 2 PFAS Study Update				**79-80**
BREAK		**10:45 AM**		
9 Discussion: Comments on Chlorine Residual Basin Plan Amendment				**81-88**
10 Discussion: Vulnerability Asessments for Climate Change				**89-91**
11 Discussion: BACWA Power Supply Reliability Infoshare				
12 Discussion: Toxicity engagement with the State Water Board	SWB Toxicity Page			**92**
13 Discussion: Emergency management Roundtable (fires, PSPS, COVID)				
OPERATIONAL			**12:00 PM**	
14 Discussion: BACWA Succession Plan				**93-94**
14 Discussion: Annual Meeting Planning				**95**
REPORTS			**12:15 PM**	
16 Committee Reports				**96-101**
17 Member Highlights				
18 Executive Director Report				**102-104**
19 Regulatory Program Manager Report				**105**
20 Other BACWA Representative Reports				
a. RMP Technical Committee		Mary Lou Esparza, Yuyun Shang, Samantha Engelage		
b. RMP Steering Committee		Karin North; Robert Wilson; Eric Dunlavey		

c. Summit Partners	Lorien Fono; Lori Schectel		
d. ASC/SFEI	Lorien Fono; Eileen White		
e. Nutrient Governance Steering Committee	Eric Dunlavey; Eileen White; Lori Schectel		
e.i Nutrient Planning Subgroup	Eric Dunlavey		
e.ii NMS Technical Workgroup	Eric Dunlavey		
f. SWRCB Nutrient SAG	Lorien Fono		
g. NACWA Taskforce on Dental Amalgam	Tim Potter		
h. BAIRWMP	Cheryl Munoz; Linda Hu; Lorien Fono		
i. NACWA Emerging Contaminants	Karin North; Melody LaBella		
j. CASA State Legislative Committee	Lori Schectel		
k. CASA Regulatory Workgroup	Lorien Fono		**106-112**
l. ReNUWIt	Jackie Zipkin; Karin North		
m. ReNUWIt One Water	Jackie Zipkin, Eric Hansen		
n. RMP Microplastics Liaison	Artem Dyachenko		
o. Bay Area Regional Reliability Project	Eileen White		
p. WateReuse Working Group	Cheryl Munoz		
q. San Francisco Estuary Partnership	Eileen White; Lorien Fono		
r. CPSC Policy Education Advisory Committee	Colleen Henry		
s. California Ocean Protection Council	Lorien Fono		
t. Countywide Water Reuse Master Plan	Karin North, Pedro Hernandez		
u. CHARG - Coastal Hazards Adampation Resiliancy Group	Jackie Zipkin		
19 **SUGGESTIONS FOR FUTURE AGENDA ITEMS**		**12:25 PM**	

NEXT MEETING	**12:29 PM**	
The next meeting of the Board is scheduled for November 20, 2020		

ADJOURNMENT	**12:30 PM**	

Executive Board Meeting Minutes

August 21, 2020

ROLL CALL AND INTRODUCTIONS

Executive Board Representatives: Lori Schectel (Central Contra Costa Sanitary District); Amit Mutsuddy (City of San Jose); Eileen White (East Bay Municipal Utility District); Amy Chastain (San Francisco Public Utilities Commission); Jason Warner (EBDA).

Other Attendees:

Name	Agency/Company
Eric Dunlavey	City of San Jose
Lorien Fono	BACWA
Alina Constantinescu	LWA/ BACWA
Jennifer Dyment	BACWA
Tom Hall	EOA
Amanda Roa	Delta Diablo
Karin North	City of Palo Alto
Mary Cousins	Woodard & Curran
Armando Lopez	Union Sanitary
Mary Lou Esparza	Central San
Samantha Engelage	City of Palo Alto
David Richardson	Woodard & Curran
Holly Kennedy	HDR, Inc.
Teresa Hererra	Silicon Valley Clean Water
Azalea Mitch	City of San Mateo
Rebecca Sutton	SFEI
Melody LaBella	Central San
Jennifer Acton	SF Airport
Mike Connor	None
Melissa Foley	SFEI
Mike Falk	HDR, Inc.
Sarah Deslauriers	Carollo Engineers
Nohemy Revilla	SFPUC
Farid Karimpour	SFEI
Don Gray	EBMUD
Nora Cibrian	City of San Jose
David Senn	SFEI
Pradeep Mugunthan	SFEI
Yun Sheng	EBMUD
Melody Tovar	City of Sunnyvale

Amit Mutsuddy started meeting at 9:01

ROLL CALL - taken

PUBLIC COMMENT – None

CONSIDERATION TO TAKE AGENDA ITEMS OUT OF ORDER
BACWA Staff suggested that Item 8 to be discussed before Item 4 & that item 14 be pulled.

CONSENT CALENDAR

1 July 17, 2020 BACWA Executive Board Meeting Minutes

2 June 2020 Treasurer's Reports and FY 20 Close. The AED gave an overview of the end of FY Budget to Actual.

Consent Calendar Items 1 and 2: *A motion to approve was made by CCCSD, Lori Schectel and seconded by EBDA, Jason Warner. The motion was approved unanimously.*

APPROVALS AND AUTHORIZATIONS

3 Approval: RPM Contract for FY21 ($98K). Mary Cousins was welcomed to the BACWA team.

Item 3: *A motion to approve was made by CCCSD, Lori Schectel and seconded by SFPUC, Amy Chastain. The motion was approved unanimously.*

4 Approval: Contract with SFEI for PFAS Study Design and Management ($65K). The ED reviewed the Scope of Work as well as lower cost alternatives.

Item 4: *A motion to approve was made by EBDA, Jason Warner and seconded by CCCSD, Lori Schectel. The motion was approved unanimously.*

5 Approval: SGA Amendment #1 ($30K). This contract will provide public outreach support to BAPPG.

Item 5: *A motion to approve was made by CCCSD, Lori Schectel and seconded by EBDA, Jason Warner. The motion was approved unanimously.*

6 Approval: SRT Amendment #2 on behalf of BABC. This amendment will increase SRT's contract to improve BABC's website and brochure.

Item 6: *A motion to approve was made by SFPUC, Amy Chastain and seconded by EBDA, Jason Warner. The motion was approved unanimously.*

7 Approval: BAR Conflict of Interest Code. The review and approval of this code is a biennial requirement.

Item 7: *A motion to approve was made by CCCSD, Lori Schectel and seconded by SFPUC, Amy Chastain. The motion was approved unanimously.*

POLICY/STRATEGIC

8 Discussion: Region 2 PFAS Study – This item was taken out of order and discussed prior to Item 4. SFEI staff Rebecca Sutton presented PFAS monitoring project. The State Water Board recently issued an investigative order requiring PFAS monitoring at POTWs; the order does not apply to Region 2. SFEI will coordinate a regional PFAS study for the Bay Area instead; study is designed to be efficient in terms of monitoring representative facilities rather than all facilities, and inform potential management actions. Proposed a phased study: Phase 1 monitor up to 15 POTWs facilities by the end of this year. Phase 2 design is tied to outcome of Phase 1. Summarized SFEI tasks: project management; sampling & analysis plan; data management & QA/QC; GeoTracker reporting; data analysis, reporting & recommendations. Phase 1 timeline is August through the end of November 2020 and then in May 2021 SFEI would present Phase 2 summary presentation and recommendations. Rebecca summarized cost comparisons and then answered technical questions from BACWA members.

See presentation

9 Discussion: RMP Update – Melissa Foley from SFEI presented an update on Regional Monitoring Program activities. Melissa mentioned that they are looking for new Steering Committee members for October meeting (Robert Wilson moved from Petaluma to Santa Rosa, an agency outside of Region 2). The Committee reviews the design of the existing programs, including CECs priorities and status and trends. Melissa summarized 2020 and 2021 special studies in emerging contaminants and microplastics and noted that nutrient monitoring is also continuing with ongoing USGS contract. She also shared a map of continuous data stations in South Bay and instrument locations. Status and trends activities for 2020 were summarized: USGS suspended sediment monitoring and toxic contaminants in margins sediment, and USGS bay cruises resumed in July after three months off due to COVID. Summarized RMP contributions for current year, budget, and special studies funding. The RMP Annual Meeting is October 6, 2020, with official announcement & registration coming shortly. Planning for the future for 2022 and beyond: CECs monitoring strategy for stormwater, personal care and cleaning product ingredients, and follow up on PFAS. Summarized multi-year microplastics priorities. The program is open to feedback on other priorities. Melissa encouraged BACWA members to contact SFEI with any questions.

See presentation.

BREAK 10:38 – 10:48 AM

10 Discussion: Draft Comments on Toxicity Provisions – BACWA Staff summarized comment letter requesting that facilities of any size with reasonable potential would be assigned numeric effluent limits, while POTWs of any size without reasonable potential would be assigned numeric targets. The BACWA comments supported comment submitted by CASA. BACWA staff will discuss the sensitive species screening requirements, and their impacts on the Alternate Monitoring Requirements, with RWB Staff. Comments are due on August 24, 2020. BACWA member discussion and technical questions followed.

11 Discussion: NACWA Cost of Wipes Report – BACWA Staff summarized study on impact of wipes on collection systems and felt costs presented were overly conservative. BACWA contributed funding to this study; Board is asked whether BACWA's logo should appear of the cover. CCCSD summarized wipes legislation AB1672 that was expected to pass, but was held in suspense. CASA made significant progress with wipes manufactures, so it is very disappointing that the bill was held back but hopeful it will move forward next year. BACWA member discussion and technical questions followed.

BACWA staff to find out what other organizations will appear on the report and will share. BACWA staff will forward to Collection Systems Committee chair to review. It was agreed that BACWA will place logo on report.

12 Discussion: BABC Update – Sarah Deslauriers, BABC Project Manager, summarized Bay Area Biosolids Committee history. Current challenge is that because of California legislation requiring organics diversion, biosolids sent to landfills will need a new disposal/ beneficial reuse option by 2025. BABC works collaboratively with Bay Area utilities to enhance environmental quality and support development of cost-effective and socially conscious decisions. BABC's goals are biosolids-related communication, to advance independent scientific research, support & expand biosolids land application in Bay Area in coordination with CASA & other regulatory agencies, support project development for cost effective biosolids use. BABC's membership is open to a wide variety of professions – academia, regulators, law firms & others. BACWA member discussion and questions followed. Comment on how BABC and BACWA can work more closely together in the future.

See presentation.

13 Discussion: Opportunity to engage in Plan Bay Area - item pulled from agenda.

14 Informational: Wastewater-based Epidemiology (WBE) Working Group update – BACWA staff updated attendees on working group. Group is made-up of wastewater representatives, county health officials, academic researchers (and labs). First round of discussions focused on setting the stage and understanding what kind of monitoring health officials would be helpful to them for decision making. Email BACWA staff if you would like to be included in this working group.

15 Discussion: COVID Issues Round-table – BACWA staff opened discussion to issues of COVID, fire emergency, and recent Stage 3 power shut off issues. CCCSD no new COVID cases at workplace, fires shut down household waste facilities & employees affected by evacuations. City of San Jose challenged

by changing policies, but staff & contractors have been very proactive about reporting COVID exposure. PG&E did not provide enough time to prepare for Stage 3 power shutoff, but City was able to staff facilities adequately. Fires are affecting staff at City of San Jose. SFPUC general health and safety slowly moving towards regular operations. Staff prefers gators as face covering but this is being investigated carefully. Also ensuring that contractors are following safety procedures. Townhall meetings & coffee break meetings about current topics have been helping morale among staff.

OPERATIONAL

16 Discussion: Draft Agenda for September Online Pardee - BACWA staff summarized draft agenda for the upcoming online Pardee two-day conference. Asked for feedback on format or items that need to be included. Member feedback was to include lots of breaks and identify and focus on most important topics where board input is needed.

17 Discussion: Brown Act requirements on noticing affiliated meetings - BACWA staff presented slide on potential Brown Act conflict at NMS steering committee meetings when a quorum of BACWA board meetings attend. The ED recommended that the NMS Charter be updated to clarify that NMS Steering Committee meetings are meetings of the Regional Water Board, which is responsible for complying with open meeting regulations. BACWA Board members attending NMS Steering Committee meetings may not discuss BACWA business at these meetings other than items that are noticed on the NMS Steering Committee agenda.

Action item: BACWA staff to propose updating NMS charter to account for Brown Act rules

18 Discussion: Invite Regulators to Annual Meeting - BACWA staff presented on options for inviting regulators to BACWA 2021 Annual meeting. Discussion amongst BACWA members followed.

Action item: BACWA staff to invite State Water Board and Regional Water Board members, RWB staff, and BAAQMD EO; other invitees will be decided at the next meeting.

19 Discussion: Strategic Planning Schedule - BACWA staff summarized meeting agenda on September 9, 2020.

REPORTS

20 Committee Reports – BACWA summarized committee reports and links to PFAS presentations in the packet

21 Member Highlights – BACWA staff asked for any member highlights – none.

22 Executive Director Report – BACWA staff noted that report was in packet.

23 Regulatory Program Manager Report - BACWA staff noted that report was in packet.

24 Other BACWA Representative Reports

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

b. RMP Steering Committee Karin North; Robert Wilson; Eric Dunlavey

c. Summit Partners Lorien Fono; Lori Schectel

d. ASC/SFEI Lorien Fono; Eileen White

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

e.i Nutrient Planning Subgroup Eric Dunlavey

e.ii NMS Technical Workgroup Eric Dunlavey

f. SWRCB Nutrient SAG Lorien Fono

g. NACWA Taskforce on Dental Amalgam Tim Potter

h. BAIRWMP Cheryl Munoz; Linda Hu; Lorien Fono

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. ReNUWIt One Water Jackie Zipkin, Eric Hansen

n. RMP Microplastics Liaison Artem Dyachenko

o. Bay Area Regional Reliability Project Eileen White

p. WateReuse Working Group Cheryl Munoz

q. San Francisco Estuary Partnership Eileen White; Lorien Fono

r. CPSC Policy Education Advisory Committee Colleen Henry

s. California Ocean Protection Council Lorien Fono

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

u. CHARG - Coastal Hazards Adampation Resiliancy Group Jackie Zipkin

LUNCH BREAK 12:10

NUTRIENTS

25 Discussion: Nutrients 1:00PM

a. Regulatory

i. July 17 NST meeting debrief

Notes from the July 17 meeting are in the packet. BACWA ED briefly presented on key takeaways from July meeting including the extensive discussion on load caps and recommendation that the assessment framework be used to drive decisions about load caps rather than antidegradation. Other issues of concern with the Water Board's vision for the 3rd NWP include aspects of regional planning and provisions for early actors.

b. Technical Work

i. NMS update with focus on modeling

David Senn and other SFEI staff provided an update on technical work related to modeling basis for preliminary designation of subembayments. There was extensive discussion on feasibility of assigning clear subembayment delineations as models show that nutrients circulate through large areas of the Bay; for example, it may not be easy to separate the Lower South Bay from the larger South Bay. Embayments are not closed systems and they receive inputs from adjacent areas.

The SFEI modeling progress report will be presented at the upcoming Steering Committee Meeting in September and will be discussed with regulators at that time. There is another opportunity for discussion before then, at the Planning Subcommittee which meets first Wed of the month.

ii. Assessment Framework meetings debrief

The ED reviewed the indicator matrix that was developed as a first step in the Assessment Framework. SFEI staff will take stakeholder input and develop a Workplan. The ED asked the group about interest in forming a Nutrient Technical Team that would engage with SFEI on scientific work products.

iii. Discuss RFP for Technical Reviewer

BACWA intends to put out an RFP for a technical reviewer of the SFEI modeling documents and reports. Ideally someone who can provide constructive input on the work products as well as distill them for the understanding of BACWA members and regulators alike. This RFP will be discussed again at the September meeting, along with the timing for posting it.

iv. Review 2015 "BACWA Approach to Nutrient Issue".

This document will be updated as part of the Strategic Plan and will be included in the RFP for Technical Reviewer.

c. Governance Structure

i. July 13 PSC meeting 48 notes – notes were in the packet.

ii. August 5 PSC Meeting 49 notes were in the packet. The main discussion topic is planning for the September 11 Steering Committee meeting.

27 SUGGESTIONS FOR FUTURE AGENDA ITEMS 3:20 PM

NEXT MEETING 3:25 PM

The next Regular meeting of the Board is scheduled for September 17 to 18 - Online Pardee Technical Seminar. There will be a Special Board meeting for Strategic Planning on September 9.

ADJOURNMENT 3:30 PM

Pardee Annual Technical Seminar Minutes

September 17 and 18, 2020

THURSDAY, SEPTEMBER 17TH (DAY 1)

ROLL CALL AND INTRODUCTIONS

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

Other Attendees:

Name	Agency/Company
Eric Dunlavey	City of San Jose
Lorien Fono	BACWA
Alina Constantinescu	LWA/ BACWA
Jennifer Dyment	BACWA
Mary Cousins	BACWA
Amanda Roa	Delta Diablo
Karin North	City of Palo Alto
Sarah Deslauriers	Carollo Engineers
Jennie Pang	SFPUC
Azalea Mitch	City of San Mateo
Yun Shang	EBMUD
Jean Marc Petit	Central CC Sanitary District
Blake Brown	Central CC Sanitary District
Don Gray	EBMUD
Melody LaBella	Central CC Sanitary District
Jennifer Harrington	Vallejo Flood and Wastewater District
Dan Frost	Central CC Sanitary District
Nohemy Revilla	SFPUC
Sam Engelage	City of Palo Alto
Melody Tovar	Central CC Sanitary District
Amanda Cauble	Central CC Sanitary District
Mary Lou Esparza	Central CC Sanitary District

Amit Mutsuddy started meeting at 9:01

ROLL CALL - taken

PUBLIC COMMENT – None

SUMMARY OF DISCUSSION ON DAY 1

1. BACWA OPERATIONS

FY 21 Budget BACWA ED reviewed BACWA's FY21 budget. BACWA dues fund organizational efforts such as meetings, staff, committee support, accounting, legal support & etc. Technical work is funded through the CBC fees, and the Nutrient Surcharge funds much of the NMS payment. Total target reserves are $1.5M – CBC $1M, Operating Reserves $200k, Legal Reserves $300K.

5 Year Plan BACWA ED reviewed important considerations around level of NMS funding and annual dues increase. BACWA dues historically increase 2% annually and CBC and Nutrient Surcharge have been flat for several years. Discussion on revenue differences with numerous scenarios. Discussed keeping dues flat \ no increase in FY22 to recognize financial constraints of members.

A key question for the budget is how extension of the Nutrient Watershed Permit will affect the total funding available (i.e., will the $/year funding commitment for science extend past the 5-year permit term if it is administratively extended?). Feedback will be solicited from the Regional Water Board on this point on Friday.

Meeting Planning BACWA ED reviewed Executive Board meeting recommendations. Discussion of length of packet and when it is released, managing video conference meetings, draft minutes to be distributed shortly after the meeting, and when will we meet again in person. No in person meetings in 2020 but hopefully after mid-2021. Cameras should be on when speaking and presenting but they can be off at other times.

Annual Meeting planning BACWA ED moved to a discussion of the Annual Meeting agenda. The Annual Meeting will be in February 2021. Posed two questions to the group: How do we want to adjust the length of the Annual Meeting given that it will be online and do we want to utilize breakout rooms or different technology to facilitate discussion. Board expressed interest in possible professional services to manage videoconferencing technology during long, interactive meeting.

Action item – BACWA ED will bring draft agenda to board meeting in October.

2. REGULATORY TOPICS

AIR Update (Sarah Deslauriers, Carollo) - Presentation moved to time slot at the beginning of the meeting. Summary of past year and going forward for AIR committee. Presentation will be available after Pardee meeting on the BACWA website. FY20 AIR committee local / BAAQMD and state / CARB activities were reviewed. Topics summarized were: Rule 11-18, proposed regulation 13, standard permit conditions, portable equipment registration, COVID-19 regulatory contingency, CARB AB 617/AB 2588, CalRecycle, SCAQMD Flare Rule 1118.1, CalOSHA's process safety management, The Climate Registry, GHG Emissions, PG&E public safety power shutoffs, Governor's EO and SCRCB Climate change preparedness survey. Discussed a quarterly meeting schedule and inviting BAAQMD staff to meetings. Summarized regulatory development and BAAQMD engagement over the next year. Discussed BAAQMD Regulation 13 related to climate pollutants, and research and TCR inventory protocol updates.

Presented slide summarizing Rule 11-18. Purpose of Rule 11-18 is to protect public from toxic air contaminants at existing facilities. Two programs getting updated this calendar year are AB617 and AB 2588. Summarized CTR & Air Toxics and the WW sector approach to determine relevant toxics for reporting as well as the 1990 PEEP program.

Board expressed interest in more frequent engagement with the BAAQMD.

Regulation 13 (Climate Pollutants). Rule development has been suspended due to COVID-19. This will give the BAAQMD more time to engage with the wastewater community regarding anaerobic digestion and understanding the competing regulatory priorities (e.g., organic waste diversion to digesters). BACWA will be preparing baseline information on climate pollutants for BAAQMD to inform rule development (to be included under Carollo's existing contract in FY21 if the Level of Effort is low enough). Ideally BAAQMD will consider is information into the study that they plan to hire HDR to complete.

Rule 11-18 (Air Toxics) BAAQMD is rolling out data requests for Phase 2 of this rule on a quarterly basis. Larger POTWs should expect to receive a data request regarding air toxics sometime in late 2020; smaller POTWs to follow in 2021, perhaps. A BACWA subcommittee has put together a template spreadsheet to help standardize members' estimates of emissions. AIR committee leadership will soon be attending a workshop on this topic. Note, Phase 1 is behind schedule, so the data requested may not be used right away.

***AB617/2588*.** BACWA is participating in CASA's statewide response to this air toxics rulemaking process. It involves a multi-year process of identifying toxic air compounds by screening for many, many constituents (>1,500) and funneling down to a shortlist of detected constituents.

Action item – BACWA staff to work with consultant to share with BACWA Board when then next Rule 11-18 meeting is.

Chlorine Residual BPA ED and Regulatory Program Manager provided overview. Comments are due October 2, 2020 and the highlight was the proposed permit limits will benefit from averaging. Reviewed timing and ideas about what BACWA should comment on. The Board indicated a preference for including the rationale for requesting a higher ML in the letter. On Friday BACWA may ask Bill Johnson whether it would be possible to write a blanket permit amendment to accelerate implementation.

Action item – ED proposed authorizing a small contract for Consultant Tom Hall, up to $5000, to help move this through the final stages.

Topics for Friday ED reviewed Friday's agenda. On Friday there will be a discussion of CECs studies and the new funding model through RMP. Also, to be discussed Friday is climate change planning, Biosolids and power supply reliability. Tom Mumley to discuss these items on Friday. Group discussed PG&E power outages and shared their contingency plans and experiences.

Strategic Planning Check-in ED summarized meeting from Sept 9, 2020 and Strategic Plan from 2009 is available in packet with ED Performance Plan. ED asked for feedback on both items.

3. NUTRIENTS

Nutrients

Central Contra Costa Sanitary District staff presented a technically detailed question about the timing of implementation of nutrient load caps. The group agreed to relay the question to the Regional Water Board on Friday.

Meeting participants discussed other questions to bring to the Regional Water Board on Friday, resulting in the refined list of questions circulated by Lorien to the Nutrient Strategy Team on Thursday evening as a PowerPoint presentation ("Questions for WSP 3.pptx").

Participants also discussed the importance of placing the nutrient management strategy in the context of other competing priorities, such as replacement of aging infrastructure, sea level rise, seismic vulnerability, PG&E public safety power shutoffs, CAL-ISO power shutoffs, new air regulations, and affordability. The Regional Water Board is very engaged with BACWA on nutrients, and may not be aware of considerable planning going into these other efforts. San Jose will be presenting to the Regional Water Board on its CIP soon (not scheduled yet), which is a great way to showcase this broader context for POTW planning.

ED will bring a draft scope of work for nutrient-related consultant support to the Board in October.

FRIDAY, SEPTEMBER 18TH (DAY 2)

ROLL CALL AND INTRODUCTIONS

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

Other Attendees:

Name	Agency/Company
Eric Dunlavey	City of San Jose
Lorien Fono	BACWA
Alina Constantinescu	LWA/ BACWA
Jennifer Dyment	BACWA
Mary Cousins	BACWA
Amanda Roa	Delta Diablo
Karin North	City of Palo Alto
Mike Falk	HDR
Jennie Pang	SFPUC
Azalea Mitch	City of San Mateo

Name	Agency/Company
Yun Shang	EBMUD
Jean Marc Petit	Central CC Sanitary District
Blake Brown	Central CC Sanitary District
Don Gray	EBMUD
Melody LaBella	Central CC Sanitary District
Jennifer Harrington	Vallejo Flood and Wastewater District
Nohemy Revilla	SFPUC
Sam Engelage	City of Palo Alto
Melody Tovar	Central CC Sanitary District
Mary Lou Esparza	Central CC Sanitary District
Jason Warner	Oro Loma Sanitary District
Bill Johnson	SF Bay Regional Water Quality Control Board
Tom Hall	EOA
James Parrish	SF Bay Regional Water Quality Control Board
Robert Schlipf	SF Bay Regional Water Quality Control Board
Thomas Mumley	SF Bay Regional Water Quality Control Board
Michael Montgomery	SF Bay Regional Water Quality Control Board
David Senn	SFEI
Ian Wren	SFEI

Amit Mutsuddy started meeting at 9:01

ROLL CALL - taken

PUBLIC COMMENT – None

SUMMARY OF DISCUSSION ON DAY 2

1. NUTRIENT MANAGEMENT STRATEGY (NMS) UPDATE

Dave Senn provided an update on recent work related to mathematical modeling of nutrients in San Francisco Bay. He discussed how the SFEI team has improved the model in 2020, in particular by creating a fast-running version that can be used to better understand model sensitivity and formulate new scientific questions. He also presented graphics demonstrating how the model could be used to assist with designating subembayments and identifying zones of influence.

The group identified a need for further discussion on the topic of subembayment definitions. Subembayment definitions are needed to the extent that they identify a region of impairment (i.e., is only one part of the Bay impaired?) or facilitate a management action (i.e., allow nutrient credit trading as a means to compliance with load caps). As a result, they need to be

defined in a useful way, with multiple and/or large dischargers in each subembayment. Subembayments that are dominated by an uncontrollable non-point-source might not be useful for management. SFEI may need additional input on the types of model outputs that would be helpful to guide this subembayment discussion.

2. NATURE-BASED SOLUTIONS FOR NUTRIENT MANAGEMENT

Ian Wren provided an update on the study of nature-based solutions for nutrient management, a study required by the 2nd Nutrient Watershed permit. The project team is identifying potential project sites around the Bay Area based on land use, elevation, and other factors. They will be preparing detailed descriptions of about 5-10 potential projects, which will be identified in 2021 once they have evaluated a longer list of alternatives. Site visits will also occur in 2021.

Ian also presented the results of a survey of wastewater treatment agencies; the survey results indicated a high level of interest in nature-based solutions, but few agencies have already incorporated such projects into their capital planning. In the survey, cost and land availability were considered the biggest barriers to implementation.

The group discussed that regional coordination will likely be required to secure funding for Sea Level Rise (SLR) adaptation projects. Regional Water Board staff discussed the SWIFIA program as a potential funding opportunity, as it allows bundling of smaller projects. However, other attendees noted that regional coordination also presents governance and operational challenges.

3. RECYCLED WATER FOR NUTRIENT MANAGEMENT

Mike Falk provided an update on the recycled water study required by the 2nd Watershed Permit. He presented the preliminary results of a survey completed by BACWA members, which indicates that recycled water diversions could approximately double by 2040. Cost and jurisdictional issues were considered the biggest barriers to implementation. The project team has prepared a draft template for individual facility reports, and they will begin to prepare the individual reports soon; this task will continue in 2021.

4. 3RD WATERSHED PERMIT

Robert Schlipf explained the Regional Water Board's current vision for the 3rd Nutrient Watershed Permit, which would establish effluent limitations to maintain existing performance. The regulatory basis for these load caps would be state and federal antidegradation policy. The group agreed that there should be no trigger to action without a scientific foundation, but also noted that management decisions will have to be made in the face of uncertainty.

There was a discussion regarding timing of enforcement and/or compliance schedules if individual agencies or subembayments cannot meet their future load caps. The Regional Water Board staff noted that compliance would be determined on a subembayment basis; compliance schedules could be issued with the 3rd watershed permit; 10-year compliance schedules are allowed when new water quality objectives are established. If there is a finding of impairment and the Regional Water Board establishes a TMDL, there is additional flexibility regarding compliance schedule length.

There was a discussion about potential trade-offs between science funding and the level of conservatism for load caps. Regional Water Board staff explained that higher load caps may be possible if a robust monitoring and modeling plan is available to identify possible impairment and quickly respond. There was also a discussion regarding the timing of the 3rd watershed permit, which could be issued after 6+ years in order to allow time for the 5 years of requisite science funding to produce useful results.

5. OTHER REGULATORY ISSUES

- The group discussed possible revisions to the Alternate Monitoring Program, which will be affected by new statewide toxicity sensitive species screening requirements (if and when they are adopted by the State Water Board).
- The group discussed a possible regional blanket permit amendment to implement the Chlorine Basin Plan Amendment.
- Regional Water Board staff announced that they are developing a climate change planning information request letter to help prepare a staff report on this topic.
- Regional Water Board staff announced that the State Water Board is opening a new Pretreatment and CECs unit.
- Several agencies shared their recent experiences regarding power supply reliability.

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

September 21st, 2020

MEMO TO: Bay Area Clean Water Agencies Executive Board

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

SUBJECT: Second Month FY 2021 Treasurer's Report

As required by section eight of the Joint Powers Agreement establishing the Bay Area Clean Water Agencies (BACWA) and California Government Code Sections 6500 et seq., attached is the BACWA Treasurer's Report for the period covering **July 1, 2020 through August 31, 2020** (Two months of Fiscal Year 2021). This report covers expenditures, cash receipts, and cash transfers for the following BACWA funds:

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

Houck, Matt

From: Charléty, Damien
Sent: Tuesday, September 22, 2020 1:11 PM
To: Houck, Matt
Subject: RE: BACWA - August 2020 Treasurer's Report

Approved.

From: Houck, Matt
Sent: Tuesday, September 22, 2020 8:05 AM
To: Charléty, Damien
Subject: BACWA - August 2020 Treasurer's Report

Hi Damien,

Please approve BACWA - August 2020 Treasurer's Report for distribution.

Thanks,

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

Fund Balances

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

BACWA Fund: This fund provides the resources for BACWA staff, its committees, and other administrative needs. The ending fund balance on August 30, 2020 was $1,455,633 which is significantly higher than the target reserve of $209,430 which is intended to cover 3 months of normal operating expenses based on the BACWA FY21 budget. $637,644 of the ending fund balance is shown on the BACWA Fund & Investments Balance Report August 30, 2020 as obligated to meet ongoing operating line item expenses for BAPPG Committee Support, Legal services, IT services, Board meeting expenses, accounting services and BACWA staff support. This leaves actual unobligated excess funds of $608,559 (i.e., actual fund balance of $817,989 less target reserves) as of August 30, 2020. As the details of the costs of the various regulatory requirements included in the 2nd Nutrient Watershed Permit become better defined, these excess funds may be transferred to the CBC fund and used to offset potential Nutrient Surcharge increases to the BACWA members.

CBC Fund: This fund provides the resources for completing special investigations as well as meeting regulatory requirements. The ending fund balance on August 30, 2020 was $1,508,912. $753,579 of the ending balance is obligated to meet line item expenses for completion of the Group Annual Report contract, completion of the NBS Study and Recycled Water Evaluation. This leaves an actual unobligated fund balance of negative 244,667 (i.e., actual fund balance of 755,333 less $1,000,000 target reserves) as of August 30, 2020. Our target reserves have temporarily fallen due to a planned disbursement of $1,000,000 to fund the nutrient scientific investigations as required by Nutrient Watershed Permit. We will recoup these funds as BACWA members pay their FY21 dues.

Legal Fund: This fund provides for needed legal services. The ending balance was $300,000 which is at the target reserve of $300,000.

Budget to Actual

The BACWA Annual Budget includes all expected revenues as well as budgeted expenses. Transfers are made from the BACWA Fund and/or the CBC Fund to balance the Annual Budget if expenses exceed revenues and vice versa. It is therefore important to achieve the anticipated revenues and not exceed the budgeted expenses on an annual basis to maintain the BACWA and CBC Fund balances at the levels projected in the 5 Year Plan.

Revenues as of August 30, 2020 (16% of the FY) are at 34.37%.

Expenses as of August 30, 2020 (16% of the FY) are at 25.42%

FY 2021
BACWA BUDGET to ACTUAL

BACWA BAY AREA CLEAN WATER AGENCIES

BACWA FY21 BUDGET	Line Item Description	FY 2021 Budget	Actual August 2020	Actual % of Budget Aug 2020	Variance	NOTES
REVENUES & FUNDING						
Dues	Principals' Contributions	$516,909	$310,416	60%	-$206,493	5 @ $103,382
	Associate & Affiliate Contributions	$187,793	$1,675	1%	-$186,118	13 Assoc @ $8,531; 45 Affiliate @ $1,708.
Fees	Clean Bay Collaborative	$675,000	$180,750	27%	-$494,250	Prin: $450,000; Assoc/Affil: $225,000
	Nutrient Surcharge	$1,700,000	$584,872	34%	-$1,115,128	See Nutrient Surcharge Spreadsheet
	Voluntary Nutrient Contributions	$0	$0	0%	$0	
Other Receipts	AIR Non-Member	$7,075	$0	0%	-$7,075	Santa Rosa
	BAPPG Non-Members	$3,954	$0	0%	-$3,954	Stanta Rosa, Sac Reg'l, Vacaville; $1,317/each
	Other	$0	$0	0%	$0	
Fund Transfer	Special Program Admin Fees (WOT)	$5,202	$0	0%	-$5,202	Flat fee
	Special Program Admin Fees (BACC)	$20,010	$0	0%	-$20,010	300 hours of AED support, based on hours billed
	Special Program Admin Fees (BABC)	$6,000	$0	0%	-$6,000	AED and RPM support, hours billed
Interest Income	LAIF	$20,000	$8,265	41%	-$11,735	BACWA, Legal, & CBC Funds invested in LAIF
	Higher Yield Investments	$18,000	$0	0%	-$18,000	Alternative Investment Interest (Legal & CBC Funds invested in AltInv)
	Total Revenue	**$3,159,943**	**$1,085,978**	**34.37%**	**-$2,073,965**	

BACWA FY21 BUDGET	Line Item Description	FY 2021 Budget	Actual August 2020	Actual % of Budget Aug 2020	Variance	NOTES
EXPENSES						
Labor						
	Executive Director	$190,000	$0	0%	-$190,000	No change from FY20 contract
	Assistant Executive Director	$102,551	$17,120	17%	-$85,431	$66.7/hour; Reflects 1500 hours
	Regulatory Program Manager	$141,170	$12,537		-$128,633	$100.16/hour; Reflects 1375 hours/yr - Contract TBD
	Total	**$433,721**	**$29,657**	**7%**	**-$404,064**	
Administration						
	EBMUD Financial Services	$42,448	$0	0%	-$42,448	
	Auditing Services	$5,345	$0	0%	-$5,345	Financial Audit Services through EBMUD
	Administrative Expenses	$7,959	$0	0%	-$7,959	Travel, Supplies, Parking, Mileage, Tolls, Misc.
	Insurance	$4,776	$0	0%	-$4,776	SLIP Insurance. Alliant Insurance.
	Total	**$60,528**	**$0**	**0%**	**-$60,528**	
Meetings						
	EB Meetings	$2,653	$0	0%	-$2,653	Catering, Venue, other expenses
	Annual Meeting	$14,369	$0	0%	-$14,369	Catering, Venue, other expenses
	Pardee	$6,367	$0	0%	-$6,367	Catering, Venue, other expenses
	Misc. Meetings	$5,306	$0	0%	-$5,306	Hol & Comm Chair Lunch, Staff Mtgs, Fin Comm, Summit Ptnrs, CASA, NACWA Tech WS, Low Flow WS
	Total	**$28,695**	**$0**	**0%**	**-$28,695**	
Communication						
	Website Hosting	$612	$0	0%	-$612	Computer Courage
	File Storage	$765	$0	0%	-$765	Box.com
	Website Development/Maintenance	$1,530	$0	0%	-$1,530	Domain registrations, website changes
	IT Support	$2,652	$0	0%	-$2,652	As needed
	Other Commun	$1,785	$306	17%	-$1,479	MS Exchange, Survey Monkey, Carbonite, Doodle Polls, PollEv, GoToMtg, HelloSign, Zoom
	Total	**$7,344**	**$306**	**4%**	**-$7,038**	
Legal						

FY 2021
BACWA BUDGET to ACTUAL

EXPENSES						
	Regulatory Support	$2,706	$0	0%	-$2,706	Downey Brand LLP
	Executive Board Support	$2,176	$0	0%	-$2,176	Day Carter & Murphy LLP
	Total	**$4,882**	**$0**	**0%**	**-$4,882**	
Committees						
	AIR	$76,000	$3,905	5%	-$72,095	$75k consulting support, $1k misc expenses. Carollo Engineers
	BAPPG	$130,000	$24,474	19%	-$105,526	Includes CPSC @ $10,000, OWOW @ $10,000, and Pest. Reg Spt. @ $60,000. S.Hughes, TDC and SGA
	Biosolids Committee	$1,000	$0	0%	-$1,000	
	Collections System	$1,000	$0	0%	-$1,000	
	InfoShare Groups	$1,750	$0	0%	-$1,750	Funds for 2 workgroups ($750 for Asset Mgmt - new in FY21; $1,000 for O&M)
	Laboratory Committee	$1,000	$0	0%	-$1,000	
	Permits Committee	$1,300	$0	0%	-$1,300	All meetings moved to include lunch hour for commuting purposes
	Pretreatment	$1,000	$0	0%	-$1,000	
	Recycled Water Committee	$1,000	$0	0%	-$1,000	
	Misc Committee Support	$45,000	$0	0%	-$45,000	
	Manager's Roundtable	$1,000	$0	0%	-$1,000	
	Total	**$260,050**	**$28,379**	**11%**	**-$231,671**	
Collaboratives						
	Collaboratives					
	State of the Estuary (SFEP-biennial)	$20,000	$0	0%	-$20,000	Biennial in Odd Fiscal Years. (Paid bienniely in odd years for even year conference)
	Arleen Navarret Award	$0	$0	0%	$0	Biennial in Even Fiscal Years. Award amount increased in FY20
	FWQC (Fred Andes)	$7,500	$0	0%	-$7,500	
	Stanford ERC (ReNUWIt)	$10,000	$0	0%	-$10,000	
	Misc	$5,000	$0	0%	-$5,000	BayCAN, NBWA
	Total	**$42,500**	**$0**	**0%**	**-$42,500**	
Other						
	Unbudgeted Items					
	Other	$0	$0	0%	$0	
		$0	**$0**	**0%**	**$0**	
Tech Support						
	Technical Support					
	Nutrients					
	Watershed	$2,800,000	$1,000,000	36%	-$1,800,000	Advance funding for 2nd Watershed Permit Science Studies. SFEI
	NMS Voluntary Contributions	$0	$30,000	0%	$30,000	SFEI \ City of Palo Alto 2017 Lower South Bay modeling
	Additional work under permit	$100,000	$0	0%	-$100,000	Includes HDR PO for $225k spread out over FY20-24.
	Regional Study on Nature based sysemts	$200,000	$0	0%	-$200,000	New Line item in FY20. SFEI
	Regional Recycling Evaluation	$60,000	$6,176	10%	-$53,824	HDR PO for $154K FY20-24
	Nutrient Workshop(s)	$0	$0	0%	$0	Pilot Studies/Plant Review/Innovative Technologies
	General Tech Support	$250,000	$0	0%	-$250,000	AB617 emission factors, nutrient technical review, other nutrient support, PFAS
	CEC Investigations	$50,000	$0	0%	-$50,000	Support for studies through RMP (PFAS in FY21). SFEI
	Risk Reduction	$7,500	$0	0%	-$7,500	$50,000 over 5 years (FY19-FY23) 2 Contracts for $25,000 each over FY19, 20, & 21
	Total	**$3,467,500**	**$1,036,176**	**30%**	**-$2,431,324**	
	TOTAL EXPENSES	**$4,305,220**	**$1,094,518**	**25.42%**	**-$3,210,702**	
	NET INCOME BEFORE TRANSFERS	**-$1,145,277**				
	TRANSFERS FROM RESERVES	**$1,145,277**				aligns with strategy of drawing down reserves to lessen impact of Nutrient Surcharge
	NET INCOME AFTER TRANSFERS	**$0**				
	TOTAL OPERATING BUDGET	**$837,720**				
	OPERATING RESERVE	**$209,430**				

BACWA Fund Report as of August 31, 2020

BACWA FUND BALANCES - DATA PROVIDED BY ACCOUNTING DEPT.

DEPTID	DESCRIPTION	FISCAL YEAR BEGINNING FUND BALANCE	TOTAL RECEIPTS TO-DATE	TOTAL DISBURSEMENTS TO-DATE	MONTH-ENDING FUND BALANCE	OUTSTANDING ENCUMBRANCES	MONTH-END UNOBLIGATED FUND BALANCE
800	BACWA	1,195,233	313,501	53,101	1,455,633	637,644	817,989
804	LEGAL RSRV	300,000	-	-	300,000	-	300,000
805	CBC	1,772,881	772,207	1,036,176	1,508,912	753,579	755,333
	SUBTOTAL 1	*3,268,114*	*1,085,708*	*1,089,277*	*3,264,545*	*1,391,223*	*1,873,322*
802	BABC	*216,514*	24,500	6,413	234,601	*84,712*	149,889
806	BACC	*(1,563)*	-	-	(1,563)	-	(1,563)
810	WOT	276,164	-	-	276,164	-	276,164
	SUBTOTAL 2	*491,115*	*24,500*	*6,413*	*509,202*	*84,712*	*424,490*
*811	PRP84	196,806	-	-	196,806	-	196,806
	SUBTOTAL 3	*196,806*	-	-	*196,806*	-	*196,806*
	GRAND TOTAL	**3,956,035**	**1,110,208**	**1,095,690**	**3,970,553**	**1,475,935**	**2,494,618**

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

BACWA INVESTMENTS BALANCES - DATA PROVIDED BY TREASURY DEPT.

DEPTID	DESCRIPTION	FISCAL YEAR BEGINNING FUND BALANCE	TOTAL RECEIPTS TO-DATE	TOTAL DISBURSEMENTS TO-DATE	MONTH-ENDING FUND BALANCE	RECONCILIATION TO FINANCIAL STATEMENTS	MONTH-END RECONCILED FUND BALANCE	UNINVESTED CASH BALANCES	LAIF INVESTMENTS AMOUNTS	LAIF INVESTMENTS PERCENTAGE	ALTERNATIVE INVESTMENTS AMOUNTS	ALTERNATIVE INVESTMENTS IDENTIFIERS	ALTERNATIVE INVESTMENT INSTRUCTIONS AND NOTES
800	BACWA	1,195,233	313,501	53,101	1,455,633	37,647	1,493,280	1,039,592	453,688	20%	-		priority # 3 for allocation
804	LEGAL RSRV	300,000	-	-	300,000	-	300,000	-	300,000	13%	-		priority # 1 for allocation
805	CBC	1,772,881	772,207	1,036,176	1,508,912	-	1,508,912	-	1,508,912	67%	-		priority # 2 for allocation
	SUBTOTAL 1	3,268,114	1,085,708	1,089,277	3,264,545	37,647	3,302,192	1,039,592	2,262,600	100%	-		
802	BABC	216,514	24,500	6,413	234,601	-	234,601	234,601	-	0%	-		pass-through funds, no allocation
806	BACC	(1,563)	-	-	(1,563)	-	(1,563)	(1,563)	-	0%	-		
810	WOT	276,164	-	-	276,164	-	276,164	276,164	-	0%	-		pass-through funds, no allocation
	SUBTOTAL 2	491,115	24,500	6,413	509,202	-	509,202	509,202	-	0%	-		
811	PRP84	196,806	-	-	196,806	-	196,806	196,806	-	0%	-		pass-through funds, no allocation
	SUBTOTAL 3	196,806	-	-	196,806	-	196,806	196,806	-	0%	-		
	GRAND TOTAL	**3,956,035**	**1,110,208**	**1,095,690**	**3,970,553**	**37,647**	**4,008,200**	**1,745,600**	**2,262,600**	**-**			
							-	-	-		-		

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

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

Reconciliation to Trial Balance - accrual basis

Per Report above:						
General		1,085,708	STB	1493	2,262,600	
WOT		24,500	STB	1505	1,745,600	
PROP		-			**4,008,200**	-
subtotal		**1,110,208**	STB	2135	(37,647)	
					3,970,553	-
Billings-Pending Receipts						
4686	Mem Contrib	488,264				
4687	Transfer	-				
4690	Assoc Contrib	(1,675)				
4696	Other	588,137				
4731	State Grant	-				
4732	Grant Retention	-				
subtotal		**1,074,726**				
Trial Balance Revenue Accounts						
4411	Interest	(8,265)				
4686	Mem Contrib	(1,003,660)				
4687	Transfer	-				
4690	Assoc Contrib	-				
4696	Other	(1,173,009)				
4731	State Grant	-				
4732	Grant Retention	-				
subtotal		**(2,184,934)**				
Difference		**(0)**				

BACWA Revenue Report as of August 31, 2020

FUND #	DEPARTMENT	JOB	REVENUE TYPE	AMENDED BUDGET	CURRENT PERIOD			YEAR TO DATE				UNOBLIGATED
					Admin & General	Contributons	Interest, Transfers,Others	Admin & General	Contributons	Interest, Transfers,Others	ACTUAL	
800	Bay Area Clean Water Agencies	0408511	Administrative & General	-	-	-	-	-	-	-	-	-
800	Bay Area Clean Water Agencies	1011099	BDO Member Contributions	516,909	-	310,146	-	-	310,146	-	310,146	206,763
800	Bay Area Clean Water Agencies	1011108	BDO Other Receipts	-	-	-	-	-	-	-	-	-
800	Bay Area Clean Water Agencies	1011109	BDO Fund Transfers	5,202	-	-	-	-	-	-	-	5,202
800	Bay Area Clean Water Agencies	1011117	BDO- Interest Income from LAIF	20,000	-	-	126	-	-	1,680	1,680	18,320
800	Bay Area Clean Water Agencies	1011133	BDO Assoc.&Affiliate Contr	187,793	-	-	-	-	-	-	-	187,793
800	Bay Area Clean Water Agencies	1014251	BDO Non-Member Contr BAPPG	3,954	-	-	-	-	-	-	-	3,954
800	Bay Area Clean Water Agencies	1014252	BDO Non-Member Contr AIR	7,075	-	-	-	-	-	-	-	7,075
800	Bay Area Clean Water Agencies	1014511	BDO-Alternative Investment Inc	18,000	-	-	-	-	-	-	-	18,000
800	Bay Area Clean Water Agencies	1015567	BACC - AED Support	20,010	-	-	-	-	-	-	-	20,010
800	Bay Area Clean Water Agencies	1015568	BABC - AED and RPM Support	6,000	-	-	-	-	-	-	-	6,000
800	Bay Area Clean Water Agencies	1015265	BDO Other Receipts (Misc)	-	-	-	-	-	-	-	-	-
800	Bay Area Clean Water Agencies	1015266	BDO Affiliate/Associate Dues	-	-	-	-	-	-	-	-	-
800	Bay Area Clean Water Agencies	1015267	BDO Affil/CS/Assoc Dues	-	-	1,675	-	-	1,675	-	1,675	(1,675)
	BACWA TOTAL			**784,943**	**-**	**311,821**	**126**	**-**	**311,821**	**1,680**	**313,501**	**471,442**
805	WQA-CBC	1011099	BDO Member Contributions	675,000	-	180,750	-	-	180,750	-	180,750	494,250
805	WQA-CBC	1011108	BDO Other Receipts	1,700,000	-	584,872		-	584,872	-	584,872	1,115,128
805	WQA-CBC	1011117	BDO- Interest Income from LAIF	-	-	-	496	-	-	6,585	6,585	(6,585)
805	WQA-CBC	1014528	BDO-Voluntary Nutrient Contrib	-	-	-	-	-	-	-	-	-
	WQA CBC TOTAL			**2,375,000**	**-**	**765,622**	**496**	**-**	**765,622**	**6,585**	**772,207**	**1,602,793**
	TOTAL			**3,159,943**	**-**	**1,077,443**	**622**	**-**	**1,077,443**	**8,265**	**1,085,708**	**2,074,235**

	DEPARTMENT	JOB	REVENUE TYPE	AMENDED BUDGET	CURRENT PERIOD			YEAR TO DATE				UNOBLIGATED
					Admin & General	Contributons	Interest, Transfers, Others	Admin & General	Contributons	Interest, Transfers, Others	ACTUAL	
802	BABC	1011099	BDO Member Contributions	-	-	24,500	-	-	24,500	-	24,500	(24,500)
802	BABC	1011109	BDO Fund Transfers	-	-	-	-	-	-	-	-	-
	BABC TOTAL			**-**	**-**	**24,500**	**-**	**-**	**24,500**	**-**	**24,500**	**(24,500)**
810	WOT	1011117	BDO- Interest Income from LAIF	-	-	-	-	-	-	-	-	-
	WOT TOTAL			**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

	DEPARTMENT	JOB	REVENUE TYPE	AMENDED BUDGET	CURRENT PERIOD			YEAR TO DATE				UNOBLIGATED
					Admin & General	Contributons	Interest, Transfers, Others	Admin & General	Contributons	Interest, Transfers, Others	ACTUAL	
811	PROP 84	1011142	Administrative Support	-	-	-	-	-	-	-	-	-
	PROP TOTAL			**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Grand Total			**3,159,943**	**-**	**1,101,943**	**622**	**-**	**1,101,943**	**8,265**	**1,110,208**	**2,049,735**

BACWA Expense Detail Report for August 31, 2020

EXPENSE TYPE	JOB	AMENDED BUDGET	CURRENT PERIOD ENC	CURRENT PERIOD PV	CURRENT PERIOD DA	CURRENT PERIOD JV	YEAR TO DATE ENC	YEAR TO DATE PV	YEAR TO DATE DA	YEAR TO DATE JV	OBLIGATED	UNOBLIGATED
LABOR						-						
AS-Executive Director	1011123	190,000	-	-	-	-	190,000	-	-	-	190,000	-
AS-Assistant Executive Directo	1011124	102,551	(7,337)	7,337	-	-	85,431	17,120	-	-	102,551	-
AS-Regulatory Program Manager	1011149	141,170	98,000	-	-	-	168,585	12,536		-	181,121	(39,951)
ADMINISTRATION												
AS-EBMUD Financial Services	1011125	42,448	-	-	-	-	42,448	-	-	-	42,448	-
AS-Audit Services	1014512	5,345	-	-	-	-	10,480	-	-	(5,240)	5,240	105
AS-BACWA Admin Expense	1011118	7,959	-	-	-	-	-	-	-	-	-	7,959
AS-Insurance	1011126	4,776	-	-	-	-	-	-	-	-	-	4,776
MEETINGS												
GBS-Meeting Support-Annual	1014514	14,369	-	-	-	-	-	-	-	-	-	14,369
GBS-Meeting Support-Exec Bd	1014513	2,653	-	-	-	-	2,653	-	-	-	2,653	-
GBS-Meeting Support-Misc	1014516	5,306	-	-	-	-	-	-	-	-	-	5,306
GBS-Meeting Support-Pardee	1014515	6,367	-	-	-	-	-	-	-	-	-	6,367
COMMUNICATION												
CAR-BACWA File Storage	1014518	765	-	-	-	-	-	-	-	-	-	765
CAR-BACWA IT Software	1014520	1,785	-	-	150	-	-	-	306	-	306	1,479
CAR-BACWA IT Support	1014519	2,652	-	-	-	-	2,652	-	-	-	2,652	-
CAR-BACWA Website Dev/Maint	1011116	612	-	-	-	-	-	-	-	-	-	612
CAR-BACWA Website Hosting	1014517	1,530	-	-	-	-	-	-	-	-	-	1,530
LEGAL												
LS-Executive Board Support	1011110	2,176	-	-	-	-	2,176	-	-	-	2,176	-
LS-Regulatory Support	1011107	2,706	-	-	-	-	2,706	-	-	-	2,706	-
COMMITTEES												
AIR-Air Issues&Regulation Grp	1014253	76,000	(3,905)	3,905	-	-	71,095	3,905	-	-	75,000	1,000
BC-BAPPG	1011147	130,000	(7,306)	7,306	-	-	59,418	16,582	9,917	(2,025)	83,892	46,108
BC-Biosolids Committee	1011101	1,000	-	-	-	-	-	-	-	-	-	1,000
BC-Collections System	1011097	1,000	-	-	-	-	-	-	-	-	-	1,000
BC-InfoShare Groups	1011102	1,750	-	-	-	-	-	-	-	-	-	1,750
BC-Laboratory Committee	1011103	1,000	-	-	-	-	-	-	-	-	-	1,000
BC-Permit Committee	1011098	1,300	-	-	-	-	-	-	-	-	-	1,300
BC-Pretreatment Committee	1011146	1,000	-	-	-	-	-	-	-	-	-	1,000
BC-Water Recycling Committee	1011100	1,000	-	-	-	-	-	-	-	-	-	1,000
BC-Manager's Roundtable	1014777	1,000	-	-	-	-	-	-	-	-	-	1,000
BC-Miscellaneous Committee Sup	1011104	45,000	-	-	-	-	-	-	-	-	-	45,000
COLLABORATIVES												
CAS-Arleen Navaret Award	1012201	-	-	-	-	-	-	-	-	-	-	-
CAS-FWQC	1012202	7,500	-	-	-	-	-	-	-	-	-	7,500
CAS-Misc Collaborative Sup	1014521	5,000	-	-	-	-	-	-	-	-	-	5,000
CAS-PSSEP	1011112	20,000	-	-	-	-	-	-	-	-	-	20,000
CAS-Stanford ERC	1011969	10,000	-	-	-	-	-	-	-	-	-	10,000
BACWA TOTAL		**837,720**	79,452	18,548	150	-	**637,644**	**50,143**	**10,223**	**(7,265)**	**690,745**	146,975
TECH SUPPORT												
WQA-CE-Technical Support	1011127	250,000	-	-	-	-	-	-	3,548	(3,548)	-	250,000
WQA-CE-Nutrient WS Permit Comm	1014021	2,800,000	-	-	-	-	-	-	1,000,000	-	1,000,000	1,800,000
WQA-CE Risk Reduction	1014023	7,500	-	-	-	-	-	-	-	-	-	7,500
WQA-CE Addl Work Under Permit	1014254	100,000	-	-	-	-	182,000	-	-	-	182,000	(82,000)
WQA-CE Voluntary Nutr Contrib	1014529	-	-	-	-	-	-	-	30,000	-	30,000	(30,000)
Nutrient Workshops	1015015	-	-	-	-	-	-	-	-	-	-	-
WQA-CE-Nature Based Solutions	1015367	200,000	-	-	-	-	435,920	-	-	-	435,920	(235,920)
Recycled Water Evaluation	1015566	60,000	-	-	-	-	135,659	6,176	-	-	141,835	(81,835)
WQA - CEC Investigations	1015569	50,000	-	-	-	-	-	-	-	-	-	50,000
TECH SUPPORT (CBC) TOTAL		**3,467,500**	**-**	**-**	**-**	**-**	**753,579**	**6,176**	**1,033,548**	**(3,548)**	**1,789,755**	**1,677,745**
GRAND TOTAL		**4,305,220**	**79,452**	**18,548**	**150**	**-**	**1,391,223**	**56,319**	**1,043,771**	**(10,813)**	**2,480,500**	**1,824,720**
BABC												
AS-Assistant Executive Directo	1011124	-	-	-	-	-	-	-	-	-	-	-
Administrative Support	1011142	-	-	-	-	-	-	-	-	-	-	-
BDO Contract Expenses	1011143	-	-	-	-	-	-	-	-	-	-	-
AS-Regulatory Program Manager	1011149	-	-	-	-	-	-	-	-	-	-	-
Collateral Development	1015374	-	1,125	-	-	-	1,125	-	-	-	1,125	(1,125)
Program Manager Expense	1015376	-	(6,413)	6,413	-	-	83,587	6,413	-	-	90,000	(90,000)
BABC TOTAL		**-**	**(5,288)**	**6,413**	**-**	**-**	**84,712**	**6,413**	**-**	**-**	**91,125**	**(91,125)**
BACC												
Administrative Support	1011142	-	-	-	-	-	-	-	-	-	-	-
BACC TOTAL		**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
WOT												
Administrative Support	1011142	-	-	-	-	-	-	-	-	-	-	-
BDO Contract Expenses	1011143	-	-	-	-	-	-	-	-	-	-	-
		-	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
GRAND TOTAL (BDO, CBC, BABC, BACC, WOT)		**4,305,220**	**74,164**	**24,961**	**150**	**-**	**1,475,935**	**62,732**	**1,043,771**	**(10,813)**	**2,571,625**	**1,733,595**

BACWA Expense Detail Report for August 31, 2020

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

BACWA Revenue Report as of August 31, 2020

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

EXECUTIVE BOARD AUTHORIZATION REQUEST

AGENDA NO.: 4

FILE NO.: 21-19

MEETING DATE: Oct 16, 2020

TITLE: Request for BACWA Executive Board Approval to Execute Agreement with the SGS AXYS for Chemical Analysis for Phase 1: Per- and Polyfluoroalkyl Substances (PFAS) Monitoring for Bay Area Publicly-Owned Treatment Works.

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

RECOMMENDED ACTION

Authorize the execution of an agreement with SGS AXYS to perform analysis of Per- and Polyfluoroalkyl Substances (PFAS) Monitoring for Bay Area Publicly-Owned Treatment Works, Phase 1 in an amount not to exceed $60,932.

SUMMARY

In July 2020, the State Water Board issued a 13267 Investigative Order to POTWs around the State to complete one year of monitoring for a suite of PFAS compounds in influent, effluent, and biosolids. The State Water Board estimated that the total cost for each facility of conducting the sampling and preparing the reports required by this Order is in the range of $5,000 to $25,000 for sampling and reporting. Region 2 POTWs were excluded from this Order with the understanding that they would work with SFEI's San Francisco Bay Regional Monitoring Program (RMP) to develop a POTW monitoring study that focuses more on data management and synthesis, in return for reduced monitoring comparted to the 13267 Order. BACWA will fund and manage the study on behalf of its members. The BACWA Executive Board approved a contract with SFEI at the August 21, 2020 Board meeting to develop and manage the study. The study is currently envisioned as a two-phase study, with Phase II to be developed and funded in Fiscal Year 21.

SFEI and BACWA staff worked together on an informal solicitation for a contract laboratory to carry out the chemical analysis of PFAS compounds as described in the proposed Phase I sampling plan. Two laboratories were identified based on their reputation among PFAS experts, and they provided estimates based on a proposed sample list supplied by SFEI**.** SGS AXYS was selected as the preferred laboratory because their quote was slightly lower than that of their competitor, and because they support an analyte list which includes additional PFAS compounds not available from other labs. They are also familiar with SFEI's data management services and reporting to CEDEN.

The attached scope of work will provide shipping of sampling materials to facilities participating in the Per- and Polyfluoroalkyl Substances Monitoring for Bay Area Publicly-Owned Treatment Works, Phase 1, as well as the chemical analysis that will be described by the Phase I sampling plan. For more details, please see the Statement of work and budget provided in Exhibit A of the attached contract.

FISCAL IMPACT

The FY21 April 17, 2020 budget includes a line item for General Technical Support, which will fund the analytical costs associated with the study. Phase II efforts are expected to be funded from the FY22 budget.

ALTERNATIVES

1. Do not complete this work: This alternative is not recommended since it would also require terminating the contract with SFEI. In this case, each member agency would then be responsible for conducting their own monitoring and reporting under a 13267 Order, at a greater total cost to the POTW community.
2. Select another consultant to conduct the work: This alternative is not recommended since SGS AXYS has a strong track record in collaborating with SFEI on CEC studies, and analysis costs were slightly below that of another highly reputable contract laboratory.

Attachments: FY21 Contract with SGS AXYS for $60,932.

Approved: _____ Date: ___

Amit Mutsuddy, Chair,
BACWA Executive Board

BAY AREA CLEAN WATER AGENCIES PROFESSIONAL SERVICES CONTRACT

This PROFESSIONAL SERVICES CONTRACT, effective 10/16/2020, is between Bay Area Clean Water Agencies ("BACWA"), a joint powers agency which exists as a public entity separate and apart from its Member Agencies, created January 4, 1984 by a Joint Powers Agreement between Central Contra Costa Sanitary District, East Bay Dischargers Association, East Bay Municipal Utility District, the City and County of San Francisco and the City of San Jose, with a mailing address of P.O. Box 24055, MS 702, Oakland, CA 94623, and SGS AXYS ("Consultant"), a Foreign-Owned corporation doing business at 2045 Mills Road West Sidney, BC V8L 5X2 for professional services as described in any Exhibit A attached hereto.

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

Description and Standard of Services to be Performed

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

Payment for Services

6. BACWA will pay Consultant based on the lump sum amounts for the various tasks shown in the scope of work in Exhibit A, up to a maximum amount payable of $60,932. Consultant will not exceed the maximum amount payable without obtaining prior written approval from BACWA.
7. Consultant shall submit invoices quarterly (March, June, September, December), or upon completion of major project milestones, with progress made on each task as indicated by a percent of task completed. Payment will be made based on the lump sum for the task and the percentage of the task completed, as listed in Exhibit B. Invoices shall include the lump sum amount requested and a brief description of the work performed.
8. Payments under this Contract will be due thirty (30) days after BACWA's receipt of invoices. BACWA may withhold from any progress or final payment any damages, backcharges or claims incurred or anticipated by BACWA to the extent caused by Consultant.

Document Ownership and Retention

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

Indemnification

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

Insurance

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

Assignment

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

Independent Contractor

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

Termination of Contract; Suspension of Services

15. This contract shall automatically terminate on June 30, 2021. Either party may also terminate this Contract in whole or in part at any time for its convenience. For a termination for convenience, the termination will be effective thirty (30) days following receipt of a written notice of termination by one party from the other. BACWA may terminate this Contract in whole or in part for cause, in which event the termination will be effective ten (10) days after Consultant's receipt of BACWA's written notice and Consultant's failure during that period to cure the default.

Dispute Resolution

16. Consultant will give prompt written notice to BACWA of any claim, dispute or other matter in question, but in no event will Consultant give such notice later than ten (10) days after Consultant's becoming aware of the event or circumstance giving rise to the claim, dispute or matter in question.
17. All claims, disputes and other matters in question between BACWA and Consultant arising out of or relating to this Contract will be subject to alternative dispute resolution. If both parties agree to arbitration it will be conducted in accordance with the Commercial Arbitration Rules of the American Arbitration Association then in effect. Notice of the demand for arbitration will be filed in writing with the other party to this Contract and with the American Arbitration Association. Any arbitration arising out of or relating to this Contract will include, by consolidation, joinder or joint filing, any other person or entity not a party to this Contract that is substantially involved in a common issue of law or fact and whose involvement in the consolidated arbitration is necessary to achieve a final resolution of a matter in controversy therein. This agreement to arbitrate will be specifically enforceable by any court with jurisdiction thereof.
18. A demand for dispute resolution by either party will be made within a reasonable time after the claim, dispute, or other matter in question has arisen, and in no event will it be made after the date when institution of court litigation based on such claim, dispute or other matter in question would be barred by the applicable period of limitations. For all claims by BACWA against Consultant, the applicable period of limitations will not commence to run, and any alleged cause of action will not be deemed to have accrued (whether such action is based on negligence, strict liability, indemnity, intentional tort or other tort, breach of contract, breach of implied or express warranty, or any other legal or equitable theory), unless and until BACWA is fully aware of all three of the following: (1) the identity of the party(ies) responsible, (2) the magnitude of the damage or injury and (3) the cause(s) of the damage or injury. The contractual limitations period and discovery rule provided herein applies in lieu of any otherwise applicable statute or related case law.
19. The failure of either party to enforce any provision of this Contract will not constitute a waiver by that party of that or any other provision of this Contract.

Severability

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

Survival

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

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

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

Exhibit A – Statement of Work and Budget

CONSULTANT: SGS AXYS

2045 Mills Rd.

Street Address
Sidney, BC Canada V8L 5X2

City, State, Zip Code
98-0164200

Tax Identification No.

Consultant Signature

Date

John Cosgrove, President

Name, Title

BACWA Signature Amit Mutsuddy, BACWA Executive Board Chair	Date
Name, Title	

Exhibit A: Statement of Work

PROJECT MANAGEMENT
The work will be under the direction of CONTRACTOR's Principal Investigator as shown below.

Questions regarding technical matters relating to this contract should be addressed to:

Agency	**SGS AXYS**	**SFEI/ASC**
Name	Sean Campbell	Diana Lin
Title	Principal Investigator	Principal Investigator
Address	2045 Mills Rd.	4911 Central Ave.
	Sidney, BC Canada V8L 5X2	Richmond, CA 94804
Phone	250-655-5834	510-746-7385
Email	sean.campbell@sgs.com	diana@sfei.org

No substitution may be made for CONTRACTOR's principal investigator or technical matter contact without the prior written concurrence of SFEI/ASC and BACWA.

The contacts for business matters relating to the work performed hereunder are:

Agency	**SGS AXYS**	**BACWA**
Name	Richard Grace	Lorien Fono
Title	Director - Sales, Marketing, and Service	Executive Director
Address	2045 Mills Rd.	
	Sidney, BC Canada V8L 5X2	
Phone	905-484-2314	
Email	richard.grace@sgs.com	

Exhibit A – Statement of Work

PROJECT NAME
Per- and Polyfluoroalkyl Substances Monitoring for Bay Area Publicly-Owned Treatment Works, Phase 1.

PROJECT DESCRIPTION
In November 2020, SFEI will coordinate with not more than 15 Bay Area Clean Water Agency Publicly-Owned Treatment Works members to collect wastewater samples for per- and polyfluoroalkyl substances (PFAS). Wastewater samples will include influent, effluent, reverse osmosis concentrate, and biosolids. The CONTRACTOR shall perform laboratory analyses on the samples as described in the Work Tasks below.

1. **Provide cleaned/certified containers and supplies**

The CONTRACTOR shall coordinate with the SFEI regarding sample containers and sample handling instructions (contact Diana Lin, (510)746-7385 or diana@sfei.org).

The CONTRACTOR shall be responsible for supplying pre-cleaned/certified containers to each participating facility (contact name, address, phone, and email will be provided by SFEI)

2. Perform laboratory analysis on environmental samples

The CONTRACTOR shall analyze the number and type of environmental and quality assurance/quality control samples as specified in the budget table in Exhibit B.

3. Follow quality assurance and quality control and procedures for the RMP

The CONTRACTOR shall follow all the field sampling, quality assurance/quality control, storage/archiving and waste disposal protocols specified in Exhibit C.

4. Report results using California Environmental Data Exchange Network templates

The CONTRACTOR shall report analytical results, including associated quality control sample results and associated metadata, according to the protocols in Exhibit C. The results shall be reported to SFEI within 6 weeks days of when the CONTRACTOR receives the samples.

Exhibit B: Budget

PFAS Monitoring in Bay Area Publicly-Owned Treatment Works, Phase 1 (Q4 2020)

Service	Sample Type	Number of Field Samples or Supplies	Number of Billable QA/QC Samples2	Unit Cost	Budget
BACWA PFAS Study - Phase 1					
Laboratory Analyses1					
PFAS target analysis, MSU 110	Influent	32	6	$385	$14,630
PFAS target analysis, MSU 110	Effluent	32	6	$385	$14,630
PFAS target analysis, MSU 110	Biosolids	20	3	$405	$9,315
PFAS target analysis, MSU 110	RO Concentrate	3	0	$385	$1,155
PFAS TOP analysis, MSU-111	Influent	15	0	$355	$5,325
PFAS TOP analysis, MSU-111	Biosolids	20	0	$390	$7,800
PFAS TOP analysis, MSU-111	RO Concentrate	2	0	$355	$710
Percent Solids	Biosolids	40			Included
Influent sample containers for target analysis (500 mL + 60 mL)	Sample containers	38			Included
Influent sample containers for TOP analysis (2 x 60 mL)	Sample containers	30			Included
Effluent + ROC sample containeres for target analysis (500 mL)	Sample containers	41			Included
Biosolids sample containers for target and TOP analysis (250 mL)	Sample containers	20			Included
Services					
Level IV data package		124	15	$35	$4,865
CEDEN		124	15	$15	$2,085
Environmental disposal fee		124	15	$3	$417
Total					$60,932

Budget Table Notes

[1]Details of the laboratory methods and target analytes to be reported are listed in Exhibit C, Section 2.

[2]In addition to any field duplicates or field blanks (which are included with the field samples), the laboratory will conduct QA/QC tests in compliance with Department of Defense (DoD) Quality Systems Manual dated 2019, version 5.3 Table 15B or later.

Exhibit C: Budget

Exhibit C: SPECIAL PROVISIONS FOR RMP LABORATORY SUBCONTRACTORS

Laboratories and other subcontractors performing monitoring services for the Regional Monitoring Program (RMP) shall conform to the following procedures and practices unless otherwise authorized, in writing, by the RMP Program Manager, RMP Quality Assurance Officer, or the RMP Data Manager.

RMP Program Manager	RMP QA Officer	RMP Data Manager
Melissa Foley	Don Yee	Adam Wong
SFEI	SFEI	SFEI
510-746-7345	510-746-7369	510-746-7394
melissaf@sfei.org	don@sfei.org	adamw@sfei.org

1. Quality Assurance and Quality Control

Laboratories shall review the 2019 Quality Assurance Program Plan (QAPP) of the RMP dated 12/16/19 and available on the web at: https://www.sfei.org/sites/default/files/biblio_files/2019_RMP_QAPP_Final_0.pdf.

The RMP laboratory methodology is performance based. Suggested methods for analyses (used in past RMP monitoring) are listed in the RMP QAPP Table 11-1. Alternatives providing similar sensitivity and specificity may be suggested by the laboratory and used after consultation with and approval by the SFEI Program Manager and QA Officer. Please notify SFEI of any suggested changes or differences in methods.

All scientific activities undertaken by laboratories must adhere to quality assurance and quality control procedures as developed in the QAPP. This will include requirements for documenting chain of custody for samples, proper sample storage and holding times, data validation methods, and analysis of quality control samples, laboratory blanks and spikes, laboratory replicates, and standard reference materials (when available). Laboratories will be required to provide concise and complete reports of analyses of quality control samples to verify that Data Quality Objectives (DQOs) from the QAPP are being met. If DQOs are not being met, re-analysis of samples may be necessary.

2. Target Analytes

Laboratories shall test for the target analytes and report the results using the analyte names and reporting units as shown below. This list represents SFEI's minimum desired analyte list as well

as the matrix, unit, fraction and method that should be used when reporting the data in the CEDEN template. See Appendix A for the list of target analytes.

3. Storage and Waste Disposal

After receipt of samples, laboratories will be responsible for proper storage of samples during the project, and disposal of samples after the project is complete. To the extent that any samples collected, or other materials used, are considered hazardous waste, laboratories will be responsible for disposing of these materials in accordance with all applicable Federal, State and/or Local laws.

4. Archiving

Whenever possible, laboratories will retain sufficient amounts of sample or sample extract to allow for future reanalysis. Samples or extracts will be archived using appropriate storage techniques. Sample materials will not be discarded until all work described in this contract has been submitted to SFEI, validated, verified and BACWA has paid the final invoice. Laboratories may charge an archiving fee if samples need to be held longer.

5. Reporting of Results

Subcontractors for field data and sample collection shall provide the collection information in the appropriate California Environmental Data Exchange Network (CEDEN) template available at http://www.ceden.org/ceden_datatemplates.shtml.

Subcontractors shall send copies of the Chain of Custody forms to SFEI immediately after the samples have been shipped to a laboratory, archives, or any other entity besides the field collection subcontractor.

Laboratory personnel will verify, screen, validate, and prepare all data, including QA/QC results, in accordance with the RMP's QAPP and will provide (upon request) detailed QA/QC documentation that can be referred to for an explanation of any factors affecting data quality or interpretation. Any detailed QA/QC data not submitted as part of the reporting package (see below) should be maintained in the laboratory's database for future reference.

Laboratories submitting analytical data are required to populate all elements of the appropriate CEDEN Electronic Data Deliverable (EDD) template, provided by SFEI at the time of sample submission, including associated QA/QC information, as outlined below. Laboratories shall validate the completed EDDs via the web at http://ceden.org/CEDEN_checker/Checker/index.htm and shall submit finalized EDDs, case narratives, SOPs, and CRM certificates through email to Data Services, DS@sfei.org. All questions regarding populating the EDD templates should be directed to SFEI's Data Services team at DS@sfei.org.

The Level IV data package will consist of the following four components: analytical and QA data results, Case Narrative, SOPs, and certificates for certified reference materials (CRMs). If there are any questions regarding vocabulary please contact DS@sfei.org.

I. Analytical and QA data results: Results will be submitted in the SFEI-provided electronic data deliverable (EDD) template, as well as the Level IV data package. Tabulated data will include the following information for each sample (when applicable):

A. Sample identification: Unique sample ID, station code, sample date, analysis date and time, sample type (field sample or QA/QC), matrix (sample water, sediment, tissue).

B. Analytical methods: Preparation, extraction, and quantification methods (codes should reference SOPs submitted with the data submission package). Also include preparation, extraction, and analysis dates.

C. Analytical results: Analyte name, fraction, result, unit, method detection limit (MDL), and reporting limit (RL) for all target parameters (***see Appendix A for naming convention and reporting units***). When applicable, state whether the results are reported in wet or dry weight, and submit the appropriate QA/QC data qualifiers with the results.

D. Required additional data include:

1. Quality assurance information for each analytical chemistry batch for the QA/QC samples specified Exhibit B-2:
    i. Matrix spike results (or similar samples), include for each analyte: target amount spiked plus parent sample result in the ExpectedValue field, actual recovery concentrations in the Result field, calculated % recovery and relative percent difference (where applicable) in the LabResultComments field. Please see details on page 50 of the 2019 QAPP.
    iii. Method blank sample results in units equivalent to field sample results (see Section C-2). Please see details on page 52 of the 2019 QAPP.
    iv. Field and lab replicate results and calculated %RPD and/or %RSD should be reported in the LabResultComments field. Please see details beginning on page 49 of the 2019 QAPP..

II. Case Narrative: The following topics will be addressed in the narrative:

A. Overview of Work Performed, Analytical Methodology and Reporting

- Number of samples received and analyzed.
- Describe handling/storage/preparation of samples.
- Summarize extraction method.
- Summarize analysis method.
- Concentration range(s) used to generate calibration curves.

- Reporting units and basis (See Table 1; field and method blank results should be in the same units and basis)
- Define qualifiers used to qualify the results.
- Are results for corrective actions (e.g., reanalysis results, contamination study)?

B. Completeness

- Were all sample results reported?
- Describe reason for any missing results.

C. Detection Limits

- Provide detection and reporting limits and how they were estimated.
- Estimate proportion of unquantified results given detection limits for target analytes.

D. Batch Specific Discussion of Results

- Provide a brief summary of results for each analytical batch.
- Describe number and type of samples analyzed in each laboratory batch.
- Indicate if results were blank or surrogate recovery corrected.
- Discuss analytical problems and any corrective actions.

1. Laboratory Blanks

- Describe type(s) of blanks analyzed and summarize method blank results.

2. Accuracy

- Summarize accuracy achieved by parameter and how measured (matrix spikes, certified reference materials, etc.).
- Are Expected Values (native+spike, certified, or target/reference concentration) and percent recovery calculations reported?

3. Precision

- Summarize precision achieved from replicates and how measured (replicates of field samples, MS/MSDs, etc.).
- Are RPD (and/or RSD) calculations reported?

III. Standard Operating Procedures (SOPs): The laboratory's standard operating procedures for preparation, digest, or extraction, and analytical methods will be submitted along with the analytical results via email to DS@sfei.org.

EXECUTIVE DIRECTOR AUTHORIZATION REQUEST

AGENDA NO.: 5
FILE NO.: 21-20
MEETING DATE: October 16, 2020

TITLE: Approval of $3,600 agreement with EOA, Inc. for technical assistance needed to support BACWA comments on Regional Water Board's proposed chlorine residual Basin Plan Amendment, and NPDES implementation.

RECOMMENDED ACTION

Authorize Agreement between BACWA and EOA from September 23, 2020 to June 30, 2021, for technical assistance needed to support BACWA's written comments on the Regional Water Board's proposed chlorine residual Basin Plan Amendment, and develop a strategy for implementation of Basin Plan Amendment into NPDES Permits once adopted.

SUMMARY

BACWA provided support to the Regional Water Board for the development of a Basin Plan Amendment 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.

In November, 2017, BACWA approved a not to exceed contract amount of $99,500.00 with EOA, Inc to support the development of a Chlorine Residual Basin Plan Amendment. This contract was fully utilized, and it expired on June 30, 2020. The Regional Water Board released a draft Basin Plan Amendment and Staff Report on August 18, 2020, with a comment deadline of October 2, 2020. The current Agreement for $3,600 would allow EOA to provide approximately 12 hours of as-needed support for the development of BACWA's written comments, as well as a strategy for the implementation of the new chlorine limits into NPDES Permits once the Basin Plan Amendment is adopted.

FISCAL IMPACT

The funding for the EOA, Inc. Agreement will come out of the General Technical Support line item in the approved FY21 Budget.

ALTERNATIVES

1. Do not approve the Agreement. This alternative is not recommended because EOA's prior involvement with this project makes their contribution invaluable to the Basin Plan Amendment adoption and implementation process.

Attachments:
FY21 Consulting Agreement with EOA, Inc.

Approved: Lorien Fono

Date: September 23, 2020

Lorien Fono, BACWA Executive Director

FILE #

Date: September 23, 2020

BAY AREA CLEAN WATER AGENCIES

CONSULTING AGREEMENT

TO:	Ray Goebel EOA, Inc. 1310 Jackson Street Oakland, CA 94612	rpgoebel@eoainc.com 510-832-2852
FROM:	Lorien Fono, Executive Director BACWA PO Box 24055, MS702 Oakland, CA 94623	lfono@bacwa.org Phone: 510-684-2993

RE: BACWA Agreement for FY21 with EOA, Inc. to provide as-needed technical assistance to support the development of a comment letter on the Regional Water Board's proposed Amendment to the Water Quality Control Plan, San Francisco Bay Basin, and Draft Substitute Environmental Document, which will add chlorine Water Quality Objectives and establish Total Residual Chlorine Water Quality-Based Effluent Limitations for wastewater discharges in the San Francisco Bay Region. This agreement also includes support for the development of proposed language to incorporate the adopted Basin Plan Amendment into NPDES Permits.

This Agreement covers as-needed professional services from September 23, 2020 through June 30, 2021 to be performed by EOA, Inc as provided in the attached Scope of Work. The work under this agreement will be carried out under the supervision of Lorien Fono of BACWA. The total cost of professional services to be performed by EOA, Inc. is not to exceed $3,600.00 This contract will be funded by the BACWA Budget under the General Technical Support line item in the FY21 BACWA Budget approved on April 17, 2020.

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

EOA, Inc. shall submit invoices to the BACWA Assistant Executive Director via e-mail along with approval of payment by Lorien Fono. Invoices shall indicate hours associated with this support. Invoices will be paid within thirty (30) days of receipt.

BACWA AED E-mail: Jennifer Dyment jdyment@bacwa.org

Attachments: Scope of Work
Current Rate Sheet for EOA, Inc.

Approved:

By Lorien Fono
Lorien Fono
BACWA Executive Director

Date 9/23/2020

BACWA EIN: 94-3389334

By _____
Ray Goebel
EOA, Inc.

Date _____

COMPANY EIN: 94-2977419

- Coordinate with BACWA on preparing written comments on the draft Total Residual Chlorine Basin Plan Amendment (TRC BPA) and associated documents

- Provide technical information for inclusion in the TRC BPA comment letter supporting RWB adoption of a TRC ML of 0.1 mg/L instead of the proposed 0.05 mg/L

- Coordinate with BACWA on developing a strategy to assist RWB staff in developing NPDES implementation language, or a blanket permit amendment to expedite implementation of TRC BPA water quality based effluent limits in POTW NPDES permits

Environmental and Public Health Engineering

2020 FEE SCHEDULE

The following fee schedule covers personnel rates for EOA, Inc. staff.

Our charges are divided into two categories: personnel, and direct expenses. A new fee schedule is issued at the beginning of each year. Charges for all work, except where other arrangements have been made, are based on the new schedule of charges.

PERSONNEL

Personnel charges are for any technical, clerical or administrative work necessary to perform the project. Work tasks include geologic and environmental consulting, engineering and computer services, regulatory liaison, and report preparation. Personnel rates are as follows:

Personnel Category	Hourly Rates
Principal……..	$287
Managing Engineer/Scientist III…….	$279
Managing Engineer/Scientist II……..	$264
Managing Engineer/Scientist I……...	$252
Senior Engineer/Scientist III – Project Leader……...	$232
Senior Engineer/Scientist/Planner II……..	$212
Senior Engineer/Scientist/Planner I…….....	$194
Associate Engineer/Scientist III …….....	$184
Associate Engineer/Scientist II…….....	$175
Associate Engineer/Scientist I……	$149
Assistant Engineer/Scientist…….....	$134
Technician……..	$117
Clerical/Computer Data Entry……	$82

Charges for professional services are in increments of one quarter-hour. Depositions/legal testimony charged portal-to-portal, at 200% of standard rates, with a four-hour minimum charge. In accordance with California Civil Procedure 2037.7, where applicable, the minimum fee must be paid prior to commencement of testimony. Preparation for court cases is charged on a time-and-materials basis as outlined in this fee schedule.

DIRECT EXPENSES

Reimbursement for expenses directly related to services provided will be charged at cost plus 10%. Examples of such direct expenses include:

- Costs of sub-consultants or subcontractors
- Costs of special fees (insurance, permits, etc.)
- Costs of long-distance telephone, copying, drafting, blueprints, etc. (EOA copies charged at $0.10 each for B&W, $0.35 each for color. Large format $0.15/sq ft for B&W, $0.50/sq ft for color)
- Costs of color map production supplies (color ink and large format paper)
- Costs or rental of special equipment
- Costs of authorized travel and related expenses
- Automobile mileage directly related to services, at current IRS rate.

INVOICES

Invoices are prepared and submitted on a monthly basis, as either final or progress billings and are payable upon receipt unless prior arrangements have been made. Interest of 1-1/2% per month, or the maximum rate allowed by law, is payable on accounts not paid within 30 days.

EOA, Inc. • 1410 Jackson Street • Oakland, CA 94612 • Tel: (510) 832-2852 • Fax: (510) 832-2856

Review of NMS Technical Documents

Bay Area Clean Water Agencies (BACWA)

Request for Proposal

10/16/2020

Table of Contents

Contents

Attachments:

A – BACWA's Approach to the Nutrient Issue

B – Sample Agreement

Request for Proposals

Provide Review of Technical Documents Produced as Part of the Bay Area Nutrient Management Strategy (NMS)

Introduction

Background: San Francisco Bay is recognized as a nutrient-enriched estuary. Historically, the San Francisco Bay has not been adversely impacted by nutrient loading even though it is nutrient-enriched compared to other estuaries around the country. Stakeholders in the Region wish to better understand this resiliency, and whether it may be threatened in the future.

The *San Francisco Bay Nutrient Management Strategy (NMS)*[1] is a locally-supported, multi-interest, long-term science strategy and an associated implementation program to provide information that is needed to support nutrient-related management decisions in the Bay. The NMS defines and guides this science, implementation, information-sharing, and public outreach approach. As such, the NMS and the work of stakeholders supporting the NMS will inform policies specifically decided by the San Francisco Regional Water Quality Control Board (Water Board). A *Charter*[2] establishes an organizational structure for implementing the NMS and sets forth the key entities that would be involved in the governance and implementation of the NMS and how they would function.

Since 2013 BACWA has been funding scientific studies being conducted by the San Francisco Estuary Institute (SFEI). BACWA voluntarily funded the initial studies in order to better understand the impacts of nutrients on the Bay. With the adoption of the Charter for governance, SFEI has been designated as the scientific body to conduct the studies for the NMS. The 2nd 5-year Nutrient Watershed Permit was adopted in 2019 and requires BACWA to contribute $2.2M per year to SFEI to fund the scientific studies. BACWA is actively engaged in supporting the NMS for San Francisco Bay and is committed to continuing to engage in a collaborative approach to nutrient science and regulation. Our members participate in key governance activities of the NMS including the Steering Committee, the Planning Subcommittee, the Nutrient Technical Workgroup and the other small single-purpose working groups.

In 2015, BACWA developed a position on the nutrient issue entitled *BACWA's Approach to the Nutrient Issue* (see attachment A) which focuses on the need to protect San Francisco by relying on robust scientific investigations and prudent expenditures of public resources. More information about BACWA's involvement in nutrient issues can be found on our nutrient webpage[3].

Scientific Studies and Technical Documents:
As part of the NMS, SFEI has produced a Science Plan which sets forth a 5-year effort to answer key scientific questions regarding the impacts of nutrients on the beneficial uses of the Bay. SFEI provides a Science Manager and staff as well as contracts with other scientists to conduct the needed studies identified in the Science Plan.

[1] https://sfbaynutrients.sfei.org/
[2] https://sfbaynutrients.sfei.org/sites/default/files/SF%20NMS%20Charter%20Revised%2006082018.pdf
[3] https://bacwa.org/nutrients/

Although BACWA has several volunteers who are engaged in monitoring the technical work being undertaken by the NMS science team, all of the BACWA volunteers have their regular workload at their agency or city and lack the time to immerse themselves in thoroughly reviewing all of the technical documents that have been produced or are in production. For this reason, BACWA is seeking to retain an outside expert to review key documents produced by the NMS science program from the perspective of a Publicly Owned Treatment Works (POTW). The independent review would help inform the BACWA membership on key aspects of the scientific reports as they relate to a public utility, pointing out areas of study or conclusions that have the potential to impact future management or policy decisions and assessing the scientific underpinnings of those conclusions and recommendations. It is also the expectation that the addition of technical support in this capacity will help support the NMS in developing more robust and defensible work products.

Current Status

There are several documents that have been or are in the process of being developed as part of the Science Plan. Previous documents can be found on the SFEI website[4] and were prepared by or under the direction and oversight of the science team at SFEI. Recent documents include the following:

- Dissolved oxygen dynamics in Lower South Bay slough and creek habitats and Appendices
- Water quality at perimeter sites in San Francisco Bay
- NMS Numerical Modeling Update
- Lower South Bay hypsographic analysis

As part of the NMS process, an Assessment Framework is being developed to provide the conceptual basis for regulatory determinations of impairment. This Assessment Framework will be used to provide the scientific underpinnings for potential regulatory decisions regarding nutrient management actions by POTWs. A work plan for the Assessment Framework is currently in development. An expert panel is being convened through the NMS in early 2021 to inform decision making related to the Assessment Framework.

Project Description

The Project consists of providing ongoing review of key technical documents being produced as part of the NMS and the Science Plan. The consultant will be asked to review technical documents from a POTW perspective, and provide technical interpretation. Using the *BACWA's Approach to the Nutrient Issue* as a guide to understanding BACWA's position, the consultant will be asked to provide a narrative to the BACWA community about the key conclusion of NMS products. They will review NMS work products to provide their findings as to the scientific soundness of the assumptions, findings, and recommendations of the documents reviewed. They will also be asked to help develop charge questions to expert panels convened by the NMS for work product review. BACWA is specifically interested in the implications of the assumptions made in preparing the scientific studies, the potential for the documents to provide a basis from which management or

[4] https://sfbaynutrients.sfei.org/books/reports-and-work-products

policy decision may ultimately be made, and other areas of study that may be warranted in order to answer key question on the nutrient issue.

A brief summary of findings from the technical review would be prepared and a briefing scheduled with the BACWA Board or a specialty workgroup made up of BACWA members that would be convened for the purpose of discussing NMS work products. Written reports on the technical soundness and consideration for alternative approaches may be requested from the consultant. Attendance at meetings with the Science Team, regulators, or relevant NMS workgroups, may also be requested.

The intent is to enter into an omnibus agreement whereby BACWA would retain the consultant and call upon the consultant's technical expertise on an as-needed basis.

Request for Proposal

BACWA seeks the services of an individual(s), a firm, or team (Consultant) to provide as-needed technical review on documents produced as part of the NMS as well as consultations on strategy to ensure that the BACWA's Approach to the Nutrient Issue is achieved. This Request for Proposal (RFP) includes the information needed for proposal preparation and includes various links and attachments associated with proposal preparation and contractual requirements, including a sample agreement (Attachment B). The Scope of Work and all attachments included are intended to provide the needed background and documentation for the Consultant to prepare a brief letter proposal to BACWA.

Scope of Work

Technical review will be requested on an as-needed basis. The outside expert will not be responsible for assessing the competence of the scientific work or any modeling efforts or re-doing any work completed but rather reviewing the existing documents from a POTW perspective and raising issues and questions for BACWA consideration. The key elements of the scope of work for the outside expert for the *SF Bay Numerical Modeling Update* review include the following:

1. Review key assumptions, critical referenced reports, conclusions and recommendations.
2. Provide a summary of the work product from the POTW perspective
3. Identify major issues and important questions
4. Identify where additional explanations from the authors are needed.
5. Discuss policy and permit ramifications.
6. Develop charge questions for expert advisory panels convened through the NMS

A presentation to the BACWA Board with key findings, conclusions and recommendations should be prepared. An estimate for additional in-person meetings should be provided on a per meeting basis. All meetings will be held via teleconference for the remainder of the 2020 calendar year, and likely longer.

Qualifications

The following qualifications are desirable for the outside expert:

1. Technical knowledge and expertise in dealing with nutrient issues in water bodies, with an emphasis on estuaries.
2. Experience with assessment of nutrient impacts
3. Understanding of models used in NMS studies
4. Experience with nutrient permits and alternate regulatory approaches

Project Schedule

The term of this agreement shall not extend beyond July 30, 2021 but may be extended for additional one-year terms at BACWA's discretion.

Major Milestone	**Date**
Proposal due	November 6
Proposal review and videoconference interviews	November 13
Selection of Consultant(s)	November 16
Notice to Proceed	November 20

Organization and Content of the Proposal

The Proposal can be submitted in the form of a letter proposal with attachments. Please limit the overall number of pages, including appendices and attachments to 20 or less. If additional pages are needed, please contact the BACWA Executive Director with the rationale.

Suggested proposal outline.

Section	**Contents**
Cover Letter	Transmittal
1	Identification of Proposer
2	Project Team and Qualifications
3	Project Approach
4	Project Experience
5	Project Schedule
6	Rate Schedule
7	Exceptions to Contract Terms and Conditions
8	Resumes of Key Staff

Level of Effort

It is envisioned that an omnibus contract in the amount of $50,000 for FY21 will be executed to supply as-needed services for review of documents and/or consultation on the NMS. The consultant will review specific NMS work products at the direction of the BACWA Executive Director, with a level of effort specified for review of that work product. The BACWA standard consulting agreement will be used for this work (see Attachment B)

Proposal Evaluation Criteria

Criteria	**Points**
Project approach – How the Consultant intends to provide the needed services	15
Expertise of proposed individual or team in similar endeavors	50
Principal in Charge/Project Manager – Availability and responsiveness	20
Ability to provide additional resources if needed	5
Level of Effort – cost effectiveness of individual or team	10
Total	**100**

ATTACHMENT A

BACWA's Approach to the Nutrient Issue

ATTACHMENT B

Standard Agreement

BACWA's standard agreement for consulting services will be used for this contract

Attachment A - BACWA's Approach to the Nutrient Issue

2015

Introduction

In the course of discussions on nutrients over the last few years many approaches on how to deal with the nutrient issue have been discussed but have not been adopted as the official BACWA Position. The BACWA coalition dealing with nutrients depends on the great majority of POTW members understanding the direction the organization is heading and what strategies are being followed to get to the desired outcomes.

The purpose of this paper is to confirm the BACWA goal on nutrients and then focus on strategies that will help achieve that goal. With a goal statement and strategies in place, specific tactics can be identified which will be pursued in support of the strategies recognizing that both strategies and tactics may need to adapt to changing circumstances as time passes. This paper will help to increase clarity on the nutrient issue for all BACWA members which should provide for a stronger coalition

BACWA Goal

By definition a goal is a high level statement of something to be achieved. As a coalition of public agencies charged with protecting public health and the environment, BACWA takes its role as stewards of the Bay very seriously. BACWA is committed to working collaboratively with the Water Board to clearly understand the impacts on nutrient loadings on the Bay and stands read to do whatever is necessary to ensure protection of the beneficial uses of the Bay. With these basic concepts supported by the membership, the BACWA Nutrient goal statement is as follows:

Nutrient management strategies should be protective of the environment, ensuring that all beneficial uses of the Bay are achieved; be based on robust scientific investigations; and make effective use of the public's resources in achieving this goal.

BACWA Strategies

Several strategic concepts have been discussed within the BACWA coalition. From those discussions the following strategies have emerged:

*1. **Sound Science**: Support the concept that regulation should be based on sound science and help fund the science.*

*2. **Beneficial Uses**: Demonstrate that beneficial uses are being protected.*

*3. **Highest Priorities**: Work to prioritize all environmental needs such that the highest priorities with the largest positive impact can be accomplished first.*

*4. **Multiple Benefits**: Emphasize that on-going and increasing efforts to recycle wastewater and enhance wetlands can have multiple benefits including providing new water supplies, protecting and increasing habitat, protection from sea level rise, and reduction in nutrient loadings; while recognizing that these efforts need time to be developed and converge on the optimal point of maximizing cost-benefits of expending public resources.*

BACWA
BAY AREA
CLEAN WATER
AGENCIES

Bay Area Clean Water Agencies
PO Box 24055, MS 702
Oakland, CA 94623

October 9, 2020

Dr. Josh Weiss
Hazen and Sawyer
1 South Street, Suite 1150
Baltimore, MD 21202

Re: Letter of Support for Hazen's Proposal for Water Research Foundation RFP 5078, Linking Nutrient Reductions to Receiving Water Responses

Dear Dr. Weiss:

The Bay Area Clean Water Agencies (BACWA) is pleased to participate in your proposal for the WRF 5078 project, "Linking Nutrient Reductions to Receiving Water Responses". BACWA is a joint powers agency, formed under the California Government Code by the five largest wastewater treatment agencies in the San Francisco Bay Area. Our members include the many municipalities and special districts that provide sanitary sewer services to more than 7.1 million people. BACWA is dedicated to working with our members, state and federal regulatory agencies, and non-governmental organizations to improve and enhance the San Francisco Bay environment.

BACWA has great interest in this topic, and we are excited to share our experience with collaborative management of nutrients in the San Francisco Bay. Because of our participation on the San Francisco Bay Nutrient Management Strategy, we believe that we can add significant value to the research team and to the Foundation's subscribers. The proposed research will contribute to the state of knowledge on the relationship between nutrient management actions and water quality impacts, an issue of major importance in our Region.

As such, BACWA will provide the project with in-kind support in the form of staffing engagement, as well as relevant historical data related to watershed management, water quality, ecosystem metrics, and other parameters, at an estimated in-kind value of $10,000. If you or the Water Research Foundation has any questions regarding our role and involvement in the project, please contact us.

Please contact me at lfono@bacwa.org if you have any questions.

Sincerely,

Lorien Fono

Lorien Fono, Ph.D., P.E.
BACWA Executive Director

Hazen *Memorandum*

September 24, 2020

Re: Participation in Water Research Foundation RFP 5078: Linking Nutrient Reductions to Receiving Water Responses

Excessive nutrient loadings to natural waters, including sources for drinking water supplies, cause numerous challenges to water resource managers, from aesthetic and recreational issues to public health impacts associated with harmful algal blooms (HABs). The traditional approach for managing water quality issues associated with nutrient loadings consists of establishing water quality impacts and linkages to sources; evaluating costs and benefits of management actions; implementing controls; and assessing improvements in water quality and ecosystem outcomes.

In practice, it can be exceedingly difficult to link watershed and source water control actions to specific water quality and ecosystem responses. Often, we lack the monitoring data needed to calibrate models that can support quantitative evaluation of management alternatives. Further, due to practical and funding limitations, and given the lag times often associated with water quality and ecosystem responses, post-action monitoring is often insufficient to retrospectively characterize the long-term success of mitigation actions. Accordingly, the Water Research Foundation (WRF) continues to invest in applied research to enhance our understanding of the linkages between regulatory, permitting, and management approaches and ecosystem responses. Hazen and Sawyer recently led a series of focus groups with industry and stakeholder experts to develop a research roadmap for the WRF that identifies funding priorities to meet near-term and long-term objectives. Our team is currently pursuing a follow-up proposal in response to RFP 5078: *Linking Nutrient Reductions to Receiving Water Responses*.

For this project, we propose to develop a comprehensive, interactive database of case studies in nutrient reductions and receiving water responses. The database will assist stakeholders in identifying critical environmental characteristics of a system and policy and management actions that are correlated with successful outcomes in terms of key performance indicators (KPIs). KPIs of relevance could include water quality and ecological endpoints; economic and community objectives; impacts to drinking water and other uses; and stakeholder involvement. For each case study, we will identify system parameters and KPIs, and integrate them into an overall database that can be used to elucidate common factors in achieving successful outcomes.

To support his effort, we are seeking case studies of nutrient management applications for evaluation and inclusion in the project database. Depending on the volume of data available, we expect the in-kind contribution to range from $5,000 to $10,000 per case study. Each research partner will receive an in-depth analysis of their case study, including evaluation of critical system parameters and KPIs and recommendations for future monitoring and management activities. In addition, stakeholders will be invited to participate in project planning calls and provide guidance on overall research directions.

For more information, please contact Josh Weiss, Director of Water Resources Innovations, at jweiss@hazenandsawyer.com or 410-926-5940. Thank you for your participation in this exciting and important applied research project.

THE Water Research FOUNDATION

Date Posted: Friday, August 14, 2020

REQUEST FOR PROPOSALS (RFP)

Linking Nutrient Reductions to Receiving Water Responses (RFP 5078)

Due Date: Proposals must be received by 2:00 pm Mountain Time on
Thursday, October 15, 2020
WRF Project Contact: Lola Olabode, lolabode@waterrf.org

Project Sponsors
This project is funded by The Water Research Foundation (WRF) as part of WRF's Research Priority Program.

Project Objectives
The objective of this project is to evaluate and quantify the effects of nutrient loading reduction strategies on observed changes in key water quality and biological response variables that meet desired water quality goals.

Budget
Applicants may request up to $150,000 in WRF funds for this project. WRF funds requested and total project value are evaluation criteria considered in the proposal selection process.

Background and Project Rationale
Excessive nutrient loading to receiving waters is one of the most widespread, costly, and challenging water quality management issues in the United States. The U.S. Environmental Protection Agency (EPA) identifies over 15,000 waterbodies within the U.S. that are impaired for nutrients, with up to 78% of coastal waters exhibiting cultural eutrophication symptoms. Nutrient over-enrichment can manifest itself in many ways that endanger human health and ecosystems, including excessive algal growth, cyanobacterial harmful algal blooms (cHABs), hypoxia, loss of biological diversity, and invasive species. Setting scientifically sound nutrient management goals (e.g., through Total Maximum Daily Loads [TMDLs], site-specific numeric criteria, or watershed management plans and targets) or biological condition (e.g., biodiversity) benchmarks that produce ecologically relevant outcomes remain among the highest-profile challenges facing states and the regulated community.

Increased nutrient loading comes from multiple anthropogenic sources such as direct point source discharges from wastewater treatment and industrial activities, nonpoint source runoff from urban and agricultural land uses, and atmospheric deposition. Disruption of structural features in the watershed, such as conversion of natural forest and wetland cover to other uses, especially in sensitive buffer areas, can alter functions that reduce mitigative capacity and, thus, increase nutrient loading to receiving waters and contribute to losses of aquatic ecosystem integrity and beneficial uses. High levels of

nutrients in sediment or in groundwater from past loadings may continue to leach into, or cycle within, waterbodies, impacting them many years after the sources have been removed.

Local governments are challenged to reduce nutrient contributions to achieve desired receiving water quality goals. Often, nutrient reduction needs push the limits of current nutrient removal technologies but continue to exceed watershed and receiving water assimilative capacity and potential for recovery. These situations can require substantial financial resources that stretch or exceed limits of the affected communities' capital and long-term operational investments and expenditures. The water quality and/or biological improvements associated with nutrient reductions vary considerably, with some waterbodies showing direct and measurable improvement and others exhibiting limited to no changes and failing to attain standards or management goals.

With the uncertainty of receiving water responses to reductions in nutrient loading, and the varying waterbody targets, the regulated community would significantly benefit from additional assessment and an expanded database of knowledge on nutrient reductions and responses based on both successes and failures (lessons learned) from actual case studies. Thus, the overall objective/goal of WRF's Linkages in Receiving Water Quality (LINK) Research Area is to enable the water quality community to fully participate in the development and implementation (including permitting) of water-quality-based discharge standards (principally nutrients) by developing independent methods for confirming linkages between receiving water quality, wastewater discharges, and other sources, including landscape contributions, in the next 3 - 5 years.

Through previous and ongoing WRF research projects, substantial progress has been made in understanding nutrient response relationships in receiving waters using tools such as water quality models. For example, WRF and its researchers, alongside state agencies, permit holders, and decision makers, have utilized the WRF Nutrient Modeling Toolbox (NMT) as an option to link nutrient management strategies to ecological response indicators for aquatic systems. Applicants are encouraged to review the reports included in the References and Resources section below for details on the genesis and direction of the LINK research area. The reports provide findings and progress on the foundational understanding, direction, and evolution of management tools that a successful proposal should build upon for this project, including identification of potential candidate case studies and recommendations for knowledgebase improvements that emphasize site-specific applications.

While these projects and tools are helpful in determining what data are required to predict receiving water responses to nutrient reductions, there is a continuing and expanding need to evaluate post-nutrient-reduction conditions using defined and measured receiving water response variables and indicators that demonstrate improvement from pre-nutrient-reduction conditions and target attainment. This information can then be used to inform and refine model developments, provide a sound technical basis for nutrient reduction targeting, and provide a more robust data-driven guideline for defining costs and benefits when planning capital water quality improvement projects or comprehensive watershed management plans. Benchmarking responses for various scenarios that might include a natural or historical benchmark, a current condition, and a target benchmark condition that meets standards or goals, is a potential alternative to typical stressor-response relationships, especially for site-specific applications and bio-conditional outcomes that integrate many stressors and provide context for nutrient management.

Comprehensive evaluation of receiving water responses to nutrient reduction efforts in a step-wise or adaptive process can be a more cost-effective and economically and environmentally sustainable

method to achieve receiving water quality goals. For example, in 2012, the State of Colorado Water Quality Control Commission adopted Regulation #85 – Nutrient Management Control Regulation (CCR 2012) for the adoption of technology-based nitrogen and phosphorus effluent limitations for municipal and industrial discharges. One intent of the regulation was to take the first step in nutrient reductions and evaluate the receiving water responses prior to requiring more advanced nutrient removal treatment. Additionally, local governments that undertake substantial capital improvements to achieve advanced nutrient removal can modify how they operate their water resource recovery facilities (e.g., modify chemical addition, aeration, etc.), which can result in long-term operation and maintenance savings. While this relatively straightforward relationship between sewage and industrial discharge provides a good conceptual example of project interests specific to nutrients, the much more complex interaction of stormwater and nonpoint source stressors and effects on an integrated watershed basis, aimed at bio-conditional or bio-integrity outcomes, is of prime importance as well.

Importantly, the context of the watershed and aquatic ecosystem is essential to effective management and will require consideration of biological indicators and endpoints to successfully achieve healthy water outcomes and meet Clean Water Act goals for collective physical, chemical, and biological integrity.

The target audiences for this project include utilities (especially small and medium sized); water ratepayers; state, regional, and municipal water quality managers; water quality regulators; watershed managers; and members of the public; all of whom would greatly benefit from a current state of collective knowledge and the decision support it will provide.

Research Approach

The primary task of this project is to assemble multiple case studies on work completed by local and state entities that have invested in capital improvements and demonstrably reduced nutrient discharges. Concurrently, the project should assess receiving water quality and ecological responses that may include integrated chemical, physical, and biological attributes (e.g., by measuring multiple response variables) linked to the nutrient reductions and effectiveness of the practices.

The focus should be on cases with TMDLs (or similar targets) or watershed management plan implementation, and approaches that have reliably demonstrated target attainment, including statistical significance testing if appropriate. Important lessons may also be learned from projects that failed to demonstrate significant progress towards water quality targets; applicants may also choose to highlight these case studies when they are informative and contribute to the project objectives.

This project is intended to leverage and build on WRF and other bodies of work (see References and Resources), experiences, lessons learned, and observations to advance the technical water quality knowledge base and reduce the uncertainties needed to make collaborative management decisions. Proposers are encouraged to review the report, *Linking Receiving Water Impacts to Sources and to Water Quality Management Decisions: Using Nutrients as an Initial Case Study* (WERF3C10), for a detailed example of a case study assessment positioned in Florida, and a thorough assessment of nutrient sources, impacts, management options, and benefits of controls that captures the intent and objectives of this RFP. The report also identifies many knowledge gaps that WRF hopes to fill with this project.

Criteria to be considered when selecting the case studies include:

- Well-defined sampling set. Clear and measurable reductions in nutrient loads to the receiving water that provide a sound basis for linking nutrient response to reduction. Specify how much data was collected over how many years and how long it took to establish with confidence the relationship between nutrient reductions and water quality or ecological responses.
- Robust receiving water baseline water quality data that include key nutrient and biological stressor and response variables, prior to and after implementing technology-based or enhanced nutrient removal technologies or watershed management actions.
- Target values and indicators that are well-described and subject to robust statistical analyses. Where possible, improvements must be documented to show significant reductions and the meeting of water quality target(s).
- Locations representative of a variety of geographies, biogeophysical conditions, and degrees of impairment, or reference conditions and ancillary data to support these attributes, if feasible.
- Clearly identified range of monitored examples of green/gray infrastructure (e.g., engineered wetlands) and non-engineered management practices, including landscape restoration and management actions that provide structural and functional integrity to the watershed as part of the nutrient mitigation efforts.
- Projects that employ a generalized stressor gradient based on nutrient loadings and both nutrient and biological responses as indicators of the effect of nutrient enrichment, including tiered aquatic life use support in the mix of case studies. Applicants should consult the EPA *Practitioner's Guide* (EPA 2016) and its application to nutrient control.
- Recovery potential in the watershed assessed with respect to case study nutrient and bio-condition targets for use attainability and best attainable condition limitations.
- Costs and justifications included in the assessment (i.e., estimated or actual costs to achieve nutrient removal and operation and maintenance costs).

This RFP also encourages flexibility in the research approach to encourage creativity and originality from proposers to leverage existing bodies of work for the most cost-effective deliverable to the end-users (ratepayers, utilities, water quality managers, and water quality regulators). Proposers should describe how they would conduct the research to meet the objectives listed above outlining the rationale behind the waterbody/sites selected and the criteria used, if not highlighted above. Proposers should also state (in a table) the percent time each key team member would spend on each task they will be involved in. The case studies selected could be sample sets of non-structural efforts, structural practices, or a mix. Proposed frameworks should include the right assortment of chemical/physical and biological response variables that can be linked back to TMDL, water quality criteria, and/or National Pollutant Discharge Elimination System (NPDES) requirements. The proposed approach mentioned above is intended as a starting point.

Expected Deliverables

A minimal set of deliverables from this project may include:

- Case Studies: A compilation of case studies including clearly identified approaches; lessons learned; observations; and a matrix of attributes, actions, and outcomes essential to project objectives)
- Final Report. The proposal should include an outline of the final report, consistent with the scope of the research project that includes:
    - Methods used to link and demonstrate efficacy of the nutrient reduction technology (or approach) to water quality metrics to the extent practicable.

- Identified factors contributing to success or failure of methods, such as data gaps or deficiencies in the case studies and with respect to specific engineered/non-engineered technologies or approaches.
- Analysis of the cost/benefit/effectiveness of the types of nutrient reduction efforts presented in the case studies.
- Measured or estimated co-benefits associated with various technologies.
- Time period required to demonstrate whether the nutrient mitigation and management efforts met the water quality goals, or if the TMDL specified met the desired goals. How long it took to demonstrate confidence in the management decisions.

- Fact Sheet, Infographics, and Peer Reviewed Journal Article
- Webcast, Conference Presentation, Field Demonstration

Communication Plan

Please review WRF's *Project Deliverable Guidelines* for information on preparing a communication plan. The guidelines are available at https://www.waterrf.org/project-report-guidelines. Conference presentations, webcasts, peer review publication submissions, and other forms of project information dissemination are typically encouraged.

Project Duration

The anticipated period of performance for this project is 24 months from the contract start date.

References and Resources

The following list includes examples of research reports, tools, and other resources that may be helpful to proposers. It is not intended to be comprehensive, nor is it a required list for consideration.

Project List

Ongoing project:

- Roadmap Workshop on Prioritizing Permitting and Linkages Research in Water Quality (5038) (*contact lolabode@waterrf.org to request Roadmap summary*)

Completed projects:

- Screening-Level Modeling of Site-Specific Nutrient Responses: Demonstrations
- Establishing Methods for Numeric Nutrient Target-Setting
- Developing Site-Specific Nutrient Goals – Demonstration: Boulder Creek, Colorado
- Modeling Guidance for Developing Site-Specific Nutrient Goals
- Nutrient Modeling Toolbox (NMT) and Guidance Bundle
- Linking Receiving Water Impacts to Sources and to Water Quality Management Decisions: Using Nutrients as an Initial Case Study

References

CCR (Colorado Code of Regulations. 2012. "5 CCR 1002-85. Regulation #85: Nutrients Management Control Regulation." https://drive.google.com/file/d/1Vu85mWGbYJg-6iTV22Hl6QId0f-EGBBL/view.

EPA (U.S. Environmental Protection Agency. 2016. A Practitioner's Guide to the Biological Condition Gradient: A Framework to Describe Incremental Change in Aquatic Ecosystems. EPA-842-R-16-001. U.S. Environmental Protection Agency, Washington, DC.

Proposal Evaluation Criteria
The following criteria will be used to evaluate proposals:

- Understanding the Problem and Responsiveness to RFP (maximum 20 points)
- Technical and Scientific Merit (maximum 30 points)
- Qualifications, Capabilities, and Management (maximum 20 points)
- Communication Plan, Deliverables, and Applicability (maximum 15 points)
- Budget and Schedule (maximum 15 points)

Proposal Preparation Instructions
Proposals submitted in response to this RFP must be prepared in accordance with the WRF document *Guidelines for Research Priority Program Proposals*. The current version of these guidelines is available at https://www.waterrf.org/proposal-guidelines, along with *Instructions for Budget Preparation*. The guidelines contain instructions for the technical aspects, financial statements, indirect costs, and administrative requirements that the applicant must follow when preparing a proposal.

Eligibility to Submit Proposals
Proposals will be accepted from domestic or international entities, including educational institutions, research organizations, governmental agencies, and consultants or other for-profit entities.

WRF's Board of Directors has established a Timeliness Policy that addresses researcher adherence to the project schedule. The policy can be reviewed at https://www.waterrf.org/policies. Researchers who are late on any ongoing WRF-sponsored studies without approved no-cost extensions are not eligible to be named participants in any proposals. Direct any questions about eligibility to the WRF project contact listed at the top of this RFP.

Administrative, Cost, and Audit Standards
WRF's research program standards for administrative, cost, and audit compliance are based upon, and comply with, Office of Management and Budget (OMB) Uniform Grants Guidance (UGG), 2 CFR Part 200 Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards, and 48 CFR 31.2 Contracts with Commercial Organizations. These standards are referenced in WRF's *Guidelines for Research Priority Program Proposals*, and include specific guidelines outlining the requirements for indirect cost negotiation agreements, financial statements, and the Statement of Direct Labor, Fringe Benefits, and General Overhead. Inclusion of indirect costs must be substantiated by a negotiated agreement or appropriate Statement of Direct Labor, Fringe Benefits, and General Overhead. Well in advance of preparing the proposal, your research and financial staff should review the detailed instructions included in WRF's *Guidelines for Research Priority Program Proposals* and consult the *Instructions for Budget Preparation*, both available at https://www.waterrf.org/proposal-guidelines.

Budget and Funding Information
The maximum funding available from WRF for this project is $150,000. The applicant must contribute additional resources equivalent to at least 33 percent of the project award. For example, if an applicant requests $100,000 from WRF, an additional $33,000 or more must be contributed by the applicant. Acceptable forms of applicant contribution include cost-share, applicant in-kind, or third-party in-kind that comply with 2 CFR Part 200.306 cost sharing or matching. The applicant may elect to contribute more than 33 percent to the project, but the maximum WRF funding available remains fixed at $150,000. **Proposals that do not meet the minimum 33 percent of the project award will not be accepted.** Consult the *Instructions for Budget Preparation* available at https://www.waterrf.org/proposal-guidelines for more information and definitions of terms.

Period of Performance
It is WRF's policy to negotiate a reasonable schedule for each research project. Once this schedule is established, WRF and its sub-recipients have a contractual obligation to adhere to the agreed-upon schedule. Under WRF's No-Cost Extension Policy, a project schedule cannot be extended more than nine months beyond the original contracted schedule, regardless of the number of extensions granted. The policy can be reviewed at https://www.waterrf.org/policies.

Utility and Organization Participation
WRF encourages participation from water utilities and other organizations in WRF research. Participation can occur in a variety of ways, including direct participation, in-kind contributions, or in-kind services. To facilitate their participation, WRF has provided contact information, on the last page of this RFP, of utilities and other organizations that have indicated an interest in this research. Proposers are responsible for negotiating utility and organization participation in their particular proposals. The listed utilities and organizations are under no obligation to participate, and the proposer is not obligated to include them in their particular proposal.

Application Procedure and Deadline
Proposals are accepted exclusively online in PDF format, and they must be fully submitted before 2:00 pm Mountain Time on Thursday, October 15, 2020. All proposal documents must be compiled into two PDF files consisting of your technical review documents and your financial review documents. All forms and components of the proposal are available in the *Proposal Component Packet* zip file on the proposal website at https://proposals.waterrf.org/Pages/RFPs.aspx. An FAQ and a tutorial are also available. A login is required to access the proposal website and download the packet. Proposers are encouraged to create logins and verify the validity and compatibility of the system well in advance in order to avoid last-minute errors or delays.

The online proposal system allows submission of your documents until the date and time stated in this RFP. To avoid the risk of the system closing before you press the submit button, do not wait until the last minute to complete your submission.

Questions to clarify the intent of this RFP and WRF's administrative, cost, and financial requirements may be addressed to the WRF project contact, Lola Olabode at (571) 384-2109 or lolabode@waterrf.org. Questions related to proposal submittal through the online system may be addressed to Caroline Bruck at (303) 347-6118 or cbruck@waterrf.org**.**

5078 Utility and Organization Participants

The following utilities have indicated interest in possible participation in this research. This information is updated within 24 business hours after a utility or an interested organization submits a volunteer form, and this RFP will be re-posted with the new information. **(Depending upon your settings, you may need to click refresh on your browser to load the latest file.)**

Michael Rau
Water Quality Manager
Central Utah Water Conservancy District
1426 E 750 N Street
Suite 400
Orem, UT 84097
USA
(801) 226-7113
miker@cuwcd.com

Patrick Kiely
CEO
SENTRY
65 Watts Avenue
Charlottetown, PE C1E 2B7
CANADA
(819) 598-7153
pkiely@islandwatertech.com

Jessica Glowczewski
Watershed Superintendent
City of Akron, Ohio Water Bureau
1570 Ravenna Road
Kent, OH 44240
USA
(330) 678-0077
Jglowczewski@akronohio.gov

Woody Frossard
Director Environmental Services Division
Tarrant Regional Water District
800 E. Northside Dr.
Fort Worth, TX 76102
USA
(817) 994-0748
woody.frossard@trwd.com

Rob Bocarro
Deputy Commissioner
Office of Engineering Services
City of Atlanta
Department of Watershed Management
72 Marietta Street, NW
Atlanta, GA 30062
USA
(404) 546-3229
rbocarro@atlantaga.gov

Lorien Fono
Executive Director
Bay Area Clean Water Agencies
PO Box 24055, MS 702
Oakland, CA 94623
USA
(510) 684-2993
lfono@bacwa.org

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

Date/Time: September 11, 2020, 9:00 AM to 1:00 PM

Location: WEBCONFERENCE

Chair: Thomas Mumley

Steering Committee Attendees

Organization	First	Last	Role	Present	Comments
BASMAA	Adam	Olivieri	Member		
	Tom	Hall	Alternate	x	
	Matt	Fabry	Alternate		
	Geoff	Brosseau	Alternate		
BACWA	Eileen	White	Member	x	
	Lori	Schectel	Alternate	x	
	Eric	Dunlavey	Member	x	
	Jackie	Zipkin	Alternate	x	
Cal DFW	Becky	Ota	Member		
	Bill	Paznokas	Alternate		
Delta Stewardship Council	Rainer	Hoenicke	Alternate		
U.S. Geological Survey	Deb	Stoliker	Member	x	
NOAA Fisheries	Joe	Dillon	Member	x	
	Brian	Meux	Alternate		
Regional San	Lisa	Thompson	Member	X	
San Francisco Baykeeper	Ian	Wren	Member	X	
South Bay Salt Pond Restoration Project	David	Halsing	Member	X	
Interagency Ecological Program	Steve	Culberson	Member		
SFCWA	Lynda	Smith	Member	x	
	Frances	Brewster	Alternate		
	Stephanie	Fong	Alternate		
U.S. EPA	Terry	Fleming	Member	x	
	Luisa	Valiela	Alternate		
U.S. FWS	Leanna	Zweig	Member		
WSPA	Kevin	Buchan	Member	x	
	Mike	Armour	Alternate		
Ocean Protection Council	Justine	Kimball	Member	x	

Central Valley Water Board	Adam	Laputz	Member		
	Janis	Cooke	Alternate		
	Christine	Joab	Alternate		
SF Bay Water Board	Tom	Mumley	Member		
	Richard	Looker	Alternate		

Additional Attendees
Derek Roberts, SFEI
Lorien Fono, BACWA
Melissa Foley, SFEI, Facilitation
David Senn, SFEI, Science Manager, Program Coordinator Team
Robert Schlipf, Water Board
SFEI staff
Karin North, City of Palo Alto
Kristen Art
Sienna White
Richard Looker, RWB
Yun Shang, EBMUD
Farid, SFEI
Ariella Chelsky, SFEI
Pradeep Mugunthan, SFEI
Mary Lou Esparza, CCCSD
Blake Brown, CCCSD
Amit Mutsuddy, San Jose
Don Gray, EBMUD

1. **Welcome, Introductions and Agenda Review**

   The Chair gave a quick overview of the meeting agenda, and the timing of technical items. The facilitator directed a role call of attendees.

2. **Decision: Approve Prior SC Meeting Summaries**

   One member noted that the list of alternates is out of date, and should be updated. The Chair asked for a vote to approve the minutes of the June 12, 2020 Steering Committee. The summary was approved unanimously.

3. **Information: Action items**

   The Chair asked if there were any questions about the action items. There were none.

4. **Information: Planning Subcommittee Report Out**

   The Planning Subcommittee met twice since June. All the items that were discussed in PSC meetings are reflected in today's agenda, such as the National Estuary Grant application, algal bloom events and investigative efforts, and charter amendments.

5. **Information: NMS Program Update**

   The Science Manager gave an overview of NMS Revenues. He provided a summary of NMS Staffing, including new staff Farid Karimpour and Sienna White.

● NMS Permit Fees: ○ $2.2mill, potentially greater. BACWA and the WB agreed that BACWA may make revenue from later years available earlier in the permit to, for example address important data gaps via extended studies. ○ BACWA has agreed to make some additional revenue available in FY2021, if needed, with the exact amount dependent on final estimated expenses of priority projects for FY2021. ● RMP CY2021 support: $250,000 to the NMS, to support C2 and P3 ● RMP funding directly to USGS, ~$250,000, to support ship-based monitoring cruises. ● Additional pooled funds from the RMP (remainders or refunds from prior agreements with USGS), made available to the NMS this year ($175,000) ● Delta Science Program Fellowship funds, $225,000 (jointly supervised postdoc working on NMS science priorities). These funds go directly to Stanford; however, the work is completely aligned with NMS priorities, and so we include the project within the program plan. ● NMS funds carried forward from FY2020 ($370,000) to continue on-going or support new projects. [strictly speaking this is not new revenue; but it's lumped together here with revenue for the purpose of discussing total available funding in FY2021] Total estimated funding sums to $3.47mill. Several Work Products have been released in the last month. Some of that work will be presented after the noon break.

The Science Manager gave a brief overview of ongoing projects:

- The field study work will begin this fall to the extent possible per COVID-19 restrictions.
- The team put together a Grant Application for National Estuaries Institute funds, but the program is oversubscribed, so the odds of being awarded are low.
- They have been routinely collecting data on the water quality around the SF Bay perimeter. They are conducting HAB growth experiments and measuring toxins in naturally occurring mussels. They are comparing toxins in SF Bay mussels compared to Tomales Bay to evaluate ocean contributions to toxins.
- SFEI has followed up on some citizen notification of algal blooms in Richardson Bay and the South Bay. The samples did not show harmful algae, but they will come back to the Steering committee in December about how to respond to these kinds of citizen complaints.
- The moored sensor work and maintenance is continuing after some missed work earlier in the pandemic. They are expanding the network, including to the shoals. Some of the data is informing oxygen dynamic work.
- The Assessment Framework subcommittee is moving forward, with a work plan expected in the next few months.
- Links were provided to several work products. There needs to be a process/forum for stakeholders to give input. The NTW will be convened much more frequently. That group will be tapped to help support AF projects, or comment on modeling work.

There was a question about intercalibration work with the Delta RMP. The Science Manager responded that he would send out that work product.

6. **Discussion: FY2021 Program Plan**

The Chair queued up this item by reminding the group that they had approved the 2021 plan, with contingencies considering restrictions related to COVID. The plan today is to reach consensus on a final plan. A table was provided in the packet that compared previously planned project level of effort with adjusted plans due to COVID. The Science Manager was asking the group for guidance and recommended changes. There was a discussion about the meaning of designating a project as high priority, but to reduce funding, such as project 14, “Risk/Scenario”.

There was a discussion about the foundation of the NMS. The Chair reminded the group that they have a mandate to develop water quality standards for nutrients. The risk/scenario project is very important but can be pushed into the future somewhat.

The program management task is also underfunded even though it is a high priority. It is challenging to locate a person who has the skillset to fill that role. There are different ways this challenge can be approached, but having the technical team take on program management roles reduces their availability to perform the science.

The Chaired called for a motion to approve the proposed revisions. The motion was made by Eric Dunlavey and seconded by Tom Hall. The motion carried unanimously. It was noted that the Plan can still be updated as needed.

The Science Manager showed statistical model outputs for chlorophyll a taking uncertainty into account.

7. **Discussion: Charter Revisions & Membership**

Ian Wren gave an overview of the proposed Charter revisions, including the revisions presented at the June Meeting. Additional edits were incorporated to clarify that the NMS SC operates under the Regional Water Board. Terry Fleming made a motion to approve and it was seconded by Eileen White. It was approved unanimously.

Ian gave an overview of members that could be dropped due to nonparticipation, including US Fish & Wildlife service, CalDFW and the Napa Farm Bureau. The Napa Farm Bureau has dropped out voluntarily, but the other agencies may be experiencing staffing issues and reorganizations standing in the way of participation. WSPA hadn’t been participating but reconfirmed that they wish to participate. The formal removal process involves contacting the member in question to reengage them in the Committee, then start member replacement steps. A formal approval from the Steering Committee is needed to finally remove members. There was discussion about whether there could be a second tier of membership that would recognize key stakeholders

Action items: Discussion at PSC - Develop tier of membership that would recognize key stakeholders who are not voting members due to nonattendance.

8. Discussion: OPC Presentation

Justine Kimball introduced herself and the role of the OPC. Justine leads the climate change

efforts in the office. The OPC approved their Strategic Plan this year, which includes actions and objectives related to Ocean Acidification and Hypoxia (OAH), including Objective 1.2 – Minimize Cases and Impacts of Ocean Acidification and Hypoxia. The action requires hem the provide scientific guidance to the State water Board by 2022. There are Targets relating to fund and mandate recycled water. They will be expanding the ROMS-BEC model nests from the Southern California Bight up to the Monterey/SF Bay coasts. A webinar can be accessed at www.westcoastoah.org/webinars/modeling. They have validated the model and are moving forward with scenarios. They will be investigating the effects of POTW nutrient management and wastewater recycling in the SCB. They will validate and assess hthe environmental effects of SF Bay versus Monterey coastal influences on the SF and Monterey coasts. This work is planned to wrap up in 2022 to provide the guidance required in Objective 1.2. There was a question about how the target of 5 mg/L was chosen as an effluent nutrient scenario. Justine responded that this was a boundary scenario to test whether any impacts are observed. There was also a question about net primary productivity versus gross primary productivity, which will be followed up on later. It was noted that the NMS is providing some funding (approx. $150-200k per year for 2-3 years) for a postdoc to be involved in this work.

9. **Other Business Items**

   The Chair asked the group for updates:

   Regional San - *The ECHO water upgrade is kicking off the biosological nutrient removal system.*

   RWB – The annual RMP Annual Meeting will be held online this year, so registration capacity is larger. The meeting will be held on October 6, and will kick off with the Wastewater Sesson. Melissa will send the registration link to the NMS SC list.

   Adjourned at 11:34

10. Technical Presentation: Dissolved Oxygen in Lower South Bay
    Derek gave a presentation on technicques to estimate respiration rates. From observed data, Newark vs. Alviso slough respiration rates and DO levels show different relationships with tidal elevation and temperature. Alviso more closely tracks with organic material and conditions coming out of salt ponds. There was a discussion about how nutrient impacts relate to DO changes that are tied to these other physical processes.

11. Technical Presentation: Modeling Update
    The Science manager gave an update on FY2020 Modeling activities. Some of the key questions are what are the nutrient souces to specific regions of SFB, how do habitats responde to , and influence, nutrients, how with the system respond to changes in nutrient loads. Model results were compared to observed historic data for chlorophyll and nutrient species concentrations. Rates of growth or loss are as important to look at as actual concentrations. The research is also looking at the relative importance of transport versus transformations. Transport is more important than transformation overall, but the magnitude varies over seasons. There were questions about continuing the model to reflect conditions in the more recent years.

    It was suggested that there be an annual nutrient workshop to present and discuss new material as it evolves. This could also part of Steering Committee or more frequent NTW meetings. Some of the synthesis work that is coming up could be reframed into a more user-friendly product for non-experts.

Planning Subcommittee Meeting No. 50
September 2, 2020
9:00 am – 12:00 pm
Teleconference
Chair: Eric Dunlavey
Meeting Notes

Attendees: Dave Senn, Eric Dunleavey, Ian Wren, Robert Schlipf, Richard Looker, Lorien Fono.

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

2. *Review Outstanding Action items (LF) 5 min*
   - Develop updated schedule of work products in advance of August meeting for discussion about permit extension alternatives – Dave (pending)
   - Develop a list of potential WSP extension alternatives – Water Board (Pending)
   - Plan NTW meeting for Fall – Dave (pending)
   - Develop draft Agenda for SC meeting that includes fleshing out C+ plan and review recent reports - complete

3. *Science Program update (DS) 10 min*
   a. *Staffing* – Farid started in late June, and Ali will be returning from leave soon. Dave has been involved in modeling work as these staff transitions are ongoing. Field work is moving forward. Derek has been pushing the mooring work forward, and there will be two additional moored sensors placed on the South Bay shoals. The staffing level feels lean and Dave is considering different scenarios to increase staffing – either more SFEI staff or consulting support. Project management support is an ongoing need.
   b. *Other* - The oxygen mechanistic report and the mussel sampling report, with 18 months of biweekly data, are forthcoming. SFEI has added a nitrate sensor at the Dumbarton bridge to the rig that is already there. It can measure down to 5µmol. The water column is fairly well mixed at the bridge, so this will give a snapshot of DIN, which is expected to mostly be in the nitrate form at that location.

4. NMS *Priority Updates*

   a. *Report-Outs* – BayKeeper received a report of another potential HAB issue from drone company taking footage near Richmond. This type of bloom happens annually due to *Akashiwo*. There was a discussion about how to respond to citizen complaints, since there are not staff at any of the participating entities whose task is to respond.

Tom reported to SFEP that the NMS has been updated to satisfy the CCMP. Do we want to maintain a nutrient management action in the CCMP? BACWA's input is requested about how this should be reflected in the Estuary Partnership process.

b. *Current Issues* - The NASA/NOAA Estuary Grant application needs matching funds. At the August meeting $135k of funds already allocated for salt pond research. There was a discussion about tying up funds for a project where the Steering committee hasn't yet provided approval. We will notify the Steering Committee that we may need to come to them for approval in late October.

c. *NMS Calendar Review -10 min*

i. Review future SC and PSC meeting schedules (LF)

The next PSC meeting will be October 7 and the next Steering Committee meeting is on September 11.

5. Other Updates

Charter Update – There was a discussion about Charter Updates to clarify that the Steering Committee is a committee of the Regional Water Board. There was a discussion about what it means to comply with open meeting laws. The NMS will look into updating their website to make it more apparent how to find upcoming meetings and recent documents.

Modeling Workshop with SCCWRP – There was a project meeting about the coastal flux study with SCCWRP the final week of August. There were conversations about uncertainty in modeling, which SFEI plans to conduct in two years. Martha Sutula is planning a stakeholder workshop in Fall about uncertainty in modeling. Dave is thinking of collaborating to include an estuary focus. We could have a three-day seminar followed by a panel discussion workshop. A small group made up of POTWs and regulators would develop expert panel charge questions. The NMS could cover the honoraria associated with the presenters, at a total cost on the order of $6k. The Workshop would primarily be for the education of stakeholders, but would also find its way back to informing NMS work products. There was a discussion about the merits and the risks of supporting the workshop. Dave will follow up with Martha and bring more specifics back to the group.

OPC update – There will be an update at the next SC meeting on modeling activities along the coast addressing OAH.

Outlook for the year – Dave gave an overview of the previous options for scaling back activities due to COVID 19 restrictions. He presented a C+ option that reflects the current thinking about work moving forward this year, along with what is currently happening, and solicited feedback from the group. Will update the "what do we need by what date to make decisions" chart for the meeting.

6. Planning the next Steering Committee meeting

a. Steering Committee agenda.
The primary goal of the meeting will be to give final approval for this year's work plan including considerations of COVID-19 impacts. Ian will add the Assessment Framework debrief and an OPC update to the agenda. The DO work and modeling will be added to the end of the agenda. There was a discussion about the Assessment framework, and whether it's ready for presentation to the Steering committee. It could potentially be pulled from the agenda if necessary pending review from the committee.

The group updated the agenda and timing for agenda items, and reviewed previous steering committee action items.

b. Review of Action items from meeting (LF)

- Develop more details about modeling uncertainty meeting to present to PSC (Dave)
- Finalize and distribute SC agenda (Ian)
- Carry forward action items from previous meetings:
  - Develop updated schedule of work products in advance of August meeting for discussion about permit extension alternatives – Dave (pending)
  - Develop a list of potential WSP extension alternatives – Water Board (Pending)
  - Plan NTW meeting for Fall – Dave (pending)

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
e. Finish

Planning Subcommittee Meeting No. 51
October 7, 2020
9:00 am – 12:00 pm
Teleconference
Chair: Ian Wren
Meeting Notes

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

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

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

   - Develop more details about modeling uncertainty meeting to present to PSC (Dave) – to be discussed later in today's agenda.
   - Finalize and distribute SC agenda (Ian) - complete
   - Carry forward action items from previous meetings:
     - Develop updated schedule of work products in advance of August meeting for discussion about permit extension alternatives – Dave (pending) – That discussion has evolved and will be wrapped into item 5 in today's agenda.
     - Develop a list of potential WSP extension alternatives – Water Board (Pending) – Similarly, will be wrapped up in today's agenda.
     - Plan NTW meeting for Fall – Dave (pending) – Ongoing, and to be discussed later in the agenda.

3. *Science Program update (DS) 10 min*
   a. *Staffing* – Ali returned to SFEI in September, so the modeling team is back up to four people. Passing along knowledge about the model to new staff has been somewhat rocky in the absence of adequate documentation, but is moving forward. The work so far has focused on the Delta, but this work will benefit the Bay via modeled reductions to Regional San. Dave warned the group that upcoming modeling work this fall will be Delta-heavy, which will reduce the pace of work on the Bay.
   b. *Other* – Dave mentioned some work overlaying the Regional San zone of influence with locations potentially impacted by HABs, and shared the report with the PSC members via email during the meeting. The time window is beginning to run out on taking measurements to characterize a baseline prior to Regional San's upgrade. However, that work area is in the Delta, and work should be funded by the Delta effort.

Mooring data collection is going well. A third mooring will be installed soon on the shoals, as well as a new nitrate sensor at the Dumbarton station, although there were delays in September due to COVID and smoke. There is a question about being able to do lab work at Stanford, due to COVID restrictions. The University of Maryland had planned to send two researchers to help with field monitoring in the South and Lower South Bay, but may only send one at this time. We may lose a half-year, or up to a full year of a post-doc's time in terms of field work because of COVID restriction. Tetra Tech is being brought onboard to assist with the Virginia Province approach, and to engage with the modeling advisory group. The DO metabolism work is moving forward, as well as fish analysis work, with an eye toward determining what additional data need to be collected.

The modeling uncertainty forum was discussed during the previous meeting, and Martha Sutula will deliver the NMS team a one-page description of the proposed meeting. It would not be a big time sink for SFEI staff, so it may be worth moving ahead with it even if it had more of a coastal focus. The total cost would be less than $5K for SFEI staff time and an honorarium for speakers. The group agreed that the level of effort would be commensurate with the benefit gained from the workshop. Dave noted that modelers are seeing effects beyond acidification and hypoxia in Southern California, and this will likely mobilize stakeholders in the South.

The National Estuaries Partnership letter of intent was submitted in august, and SFEI was not invited for a full proposal. Raphe Kudela submitted a proposal to NASA on remote sensing. There is a NOAA RFP out related to coastal trash and microplastics that could provide funding for hydrodynamic modeling.

4. NMS *Priority Updates*

   a. *Report-Outs* – Tom has been invited to participate in a meeting of State Water Regulators focused on Nutrient Regulation and Trading. Tom will be preparing a presentation on the Bay Area approach, including the focus on science and types of management actions being considered. Tom will circulate the presentation to the group.

   b. *Current Issues - none*

   c. *NMS Calendar Review -10 min*

      i. Review future SC and PSC meeting schedules (IW)
      The next PSC meetings will be November 4 and December 2 and the next Steering Committee meeting is on December 11.

5. Other Updates

   a. *Approach for clarifying permit-based specifics of science goals*

Dave discussed the relatively lower rate of investment in the science in the SF Bay versus the Chesapeake or LSI. There was a suggestion about looking more closely about what science program would be needed to inform specific permit conditions. Tom's goal is to have an agreement on an approach by the Spring 2021. We need to keep in mind that there will be both a permitting as well as a Standards (Basin Plan) action. Tom would like to get the permit reissued earlier rather than later so that it's more likely that he's with the Water Board at that time. What are the projects that need to be addressed in the short term prior to the third WS permit, versus what can be ongoing in the long term. We will convene a special meeting to discuss what needs to be queued up for the next PSC meeting. We would develop a hypothesis, and determine what are the projects that would be used to accept or reject the hypothesis.

b. *Feedback on upcoming reports and manuscripts*
SFEI had shared a draft of the LSB mechanistic report at the September steering committee meeting. Technical report #2 will be submitted to a peer reviewed journal, and will focus on methods to measure phytoplankton respiration rates. This harkens back to a previous discussion on how to manage NMS review of articles submitted to journals. The peer review will provide technical feedback to help bolster the scientific integrity of the process. The plan is to send the manuscript to the Steering Committee for review at the same time it gets sent to some of the coauthors, with a 3 week window for comments. Dave is proposing to use 3-4 weeks of time of NMS funding for manuscript preparation per year. The Program Plan already specifies that some of the funds will be used for manuscript preparation. There was a discussion about the extent to which stakeholders could influence the manuscripts prepared by external collaborators. Feedback will be considered, but all proposed edits will not necessarily be incorporated. The question of who owns access to the manuscript when it's submitted to a firewalled journal was raised. There are a few solutions to that issue, including retaining an "author's copy" or paying to make it open source.

c. *NTW meeting planning*
This meeting could take place in the afternoon as part of the December Steering Committee meeting. Special NTW meetings will be hosted as needed.

d. *LSB "Hot and Dark" event*
In early September, there were significantly hot days followed by light attenuation due to smoke. There is some interesting data related to those events which we will discuss if we have the time.

6. Planning the next Steering Committee meeting

a. *Steering Committee agenda.*
This will be discussed at the next PSC meeting.

b. *Review of Action items from meeting (LF)*

- Work with Martha to deliver info on modeling uncertainty meeting to present to PSC (Dave)
- Send out Doodle to plan two 90 minute meetings to discuss how to approach scientific underpinnings of permitting and standards actions (Ian)
- Circulate presentation for Water Quality Regulators meeting (Tom)

7. Adjourn or address Parking Lot items

Parking Lot of Identified PS Future Agenda Items

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

Lorien Fono

From: Diana Lin <diana@sfei.org>
Sent: Wednesday, September 30, 2020 11:25 PM
To: Dunlavey, Eric; alicia.chakrabarti@ebmud.com; Jennie Pang; Tim Potter; Engelage, Samantha; Meg P. Herston; Timothy Grillo; Jennifer.Acton@flysfo.com; Jennifer Harrington; lizf@novatosan.com; sscheidt@cityofsanmateo.org; jzipkin@ebda.org
Cc: Lorien Fono; Miguel Mendez; Rebecca Sutton
Subject: Please respond to PFAS Pre-Sampling Questionnaire by Tues, 10/6
Attachments: POTW PFAS Pre-Sampling Questionnaire - Google Forms.pdf

Dear RMP colleagues,

Thank you for your prompt response to the Region 2 PFAS study questionnaire. After reviewing the range of facilities throughout the Region, we've prioritized your facility as a representative facility from which to collect samples for the BACWA PFAS Phase I study. Along with 12 other facilities, this sampling set is expected to be representative of Bay POTWs discharges that will inform our study questions (Scope of Work).

The 13 selected facilities for participation are listed below.

- San Jose
- EBMUD
- SFPUC (South East)
- SFPUC (Ocean Side)
- CCCSD
- Palo Alto
- FSSD
- Union San (Raymond Alvarado)
- SFO (industrial)
- Vallejo
- Novato
- EBDA (effluent only)
- San Mateo

Facility selection was based on considering the following factors:

- **Discharge volume:** We prioritized sampling at the largest facilities in order to capture dominant flows to the Bay. We also included a few medium and small size facilities to represent other medium and small size facilities.
- **Service population and industries:** We selected a few facilities that have minimal industrial sources. We also included facilities that have a greater percentage of flows coming from industrial sources, particularly sources related to fabricated metals, electronic manufacturing, airport, and military.
- **Participation in previous Bay RMP PFAS study in 2014:** We included all facilities that participated in previous PFAS study so that we can evaluate changes in specific PFAS concentrations.
- **Treatment type:** We included facilities that could represent different secondary treatment technologies as well as including facilities with advanced secondary treatment processes to understand impacts, if any, on the treatment processes on PFAS.
- **Geographic location:** Selected facilities are geographically diverse and represent all subembayments.

Prior to sampling this **November**, we will be following up with a webinar to provide sampling instructions and opportunity for **Q&A** to your staff. Please fill out this **Doodle poll** to help us identify a date and time (morning or afternoon - current times in poll are placeholders) all participants can attend.

To make sure we understand the feasibility of collecting samples at different points in your process, please respond to the linked **Pre-Sampling Questionnaire** by **COB Tuesday, October 6**. We are also requesting a diagram of the wastewater treatment process with marked locations of proposed sampling locations (Question 14 in Questionnaire). If you need more time to fill out the Questionnaire, please fill out as much as possible by Tuesday, and fill out the remainder as soon as possible (you should be able to continue to edit your response). Please email me (diana@sfei.org) if you need more time. Your prompt response is necessary for us to complete this study on time, and the earlier we get responses, the earlier we can develop a sampling plan. Attached is a PDF of the Questionnaire, which may be useful for internal discussions.

We will arrange with the analytical laboratory to provide sampling kits that will include sampling bottles and shipping materials and forms.

Looking forward to working with you all.
Best wishes,
Diana

Diana Lin, Ph.D.
Senior Scientist

San Francisco Estuary Institute
4911 Central Avenue
Richmond, CA 94804
510.746.7385

October 2, 2020

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

VIA EMAIL: Tong.Yin@waterboards.ca.gov

Subject: Proposed Basin Plan Amendment to Add Chlorine Water Quality Objectives and Total Residual Chlorine Water Quality-Based Effluent Limitations for Wastewater Discharges

Dear Dr. Yin:

The Bay Area Clean Water Agencies (BACWA) appreciate the opportunity to provide comments on the proposed amendment to the Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) to add chlorine Water Quality Objectives (WQOs) and Total Residual Chlorine (TRC) Water Quality-Based Effluent Limitations (WQBELs) for wastewater discharges. BACWA is a joint powers agency whose members own and operate publicly-owned treatment works and sanitary sewer systems that collectively provide sanitary services to over 7.1 million people in the nine-county San Francisco Bay (SF Bay) Area. BACWA members are public agencies, governed by elected officials and managed by professionals who protect the environment and public health.

BACWA closely collaborated with Regional Water Board staff during development of the proposed Basin Plan Amendment, and strongly supports its adoption. BACWA appreciates that Oil and Grease effluent limitations will no longer be needed for facilities that provided secondary or advanced-secondary treatment, as this will reduce the monitoring and reporting effort for our member agencies.

More importantly, the proposed Basin Plan Amendment will reduce the need for BACWA members to dose effluent with dechlorinating agents such as sodium bisulfite prior to discharging to receiving waters, providing an environmental benefit. Historically, BACWA members have used an overdosing strategy to guarantee compliance with effluent limitations for chlorine, which were expressed as an instantaneous maximum. The previous limitations did not allow consideration of time averaging or dilution in the receiving water. The new proposed

WQBELs allow consideration of both factors, allowing BACWA members to save up to $1.2M per year on sodium bisulfite purchases. The change will also allow BACWA members to reduce loading of sodium bisulfite into San Francisco Bay and its tributaries, benefiting water quality and the environment.

BACWA encourages the Regional Water Board to move swiftly to implement the Basin Plan Amendment by preparing a regional permit amendment, rather than by implementing the amendment over the next five years on a drawn out, permit-by-permit basis. Several of our members that would benefit most from the amendment, such as Delta Diablo and East Bay Municipal Utility District, have NPDES permits that will not be reissued for four to five years. A regional permit amendment would streamline implementation and accelerate cost savings and reduction of chemical inputs to the Bay.

Besides these general comments, BACWA also has specific recommendations for language changes in the proposed Basin Plan Amendment, which are listed below.

1. **Clarify that continuous monitoring is not required for discharge facilities that are seasonal or use natural dechlorination.**

   The proposed Basin Plan Amendment requires continuous monitoring, allowing an exception only for "smaller or intermittent discharge facilities." (page A-8, Annotated Basin Plan Amendment). The text in the proposed Basin Plan Amendment does not match the draft Staff Report, which states that "seasonal or wet weather discharges" should also be considered for an exemption to the continuous monitoring requirement (page 13, Draft Staff Report).

   The City of Petaluma's Ellis Creek Water Recycling Facility (Order No. R2-2016-0014) is an example of a seasonal discharger using chlorine disinfection during the wet season of October to April. Natural dechlorination occurs by routing effluent through a constructed polishing wetland. City staff monitor for chlorine using grab samples. This is an example of a current facility that should qualify for an exemption to the continuous monitoring requirement, but there may be others in the future. Additional dischargers could install constructed wetlands designed for effluent polishing, for example to improve nutrient removal. BACWA is currently completing a study regarding the nutrient removal potential of natural systems like wetlands. Grab sampling may be appropriate for other future systems that rely on ponds or constructed wetlands for natural dechlorination. Site access can make continuous monitoring difficult in such situations.

   BACWA recommends addition of the word "seasonal" and the phrase "facilities not using chemical addition for dechlorination" to proposed Footnote (f) to Table 4-2 of the Basin Plan, as shown in the markup below.

   f. These effluent limitations apply to all treatment facilities with potential to discharge chlorine.

   These effluent limitations may be adjusted to account for a mixing zone in a manner consistent with procedures in the Policy for Implementation of Toxics Standards for

> *Inland Surface Waters, Enclosed Bays, and Estuaries of California. Total residual chlorine should be monitored with a frequency of not less than one sample every five minutes. Less frequent sampling may be appropriate for smaller, seasonal, or intermittent discharge facilities, or for facilities not using chemical addition for dechlorination.*

Additional information may also be needed in the Staff Report (page 13); suggested text is below.

> *We propose that TRC compliance monitoring samples be collected not less than once every five minutes; less frequent monitoring may be allowed for smaller facilities or intermittent discharges, such as seasonal or wet weather discharges, or for facilities that rely on natural dechlorination in ponds or wetlands rather than chemical addition. For compliance determination, the TRC effluent limitations in Basin Plan Table 4-2 would be compared to the arithmetic mean of all TRC measurements collected during each hour. When computing the 1-hour arithmetic means, measured values below the ML would be treated as zero.*

2. The electronic reporting requirement should be simplified from 24/day to 1/day.

The draft Staff Report (page 21) includes a description of expected reporting requirements, as shown below (emphasis added):

> *Continuous on-line TRC effluent monitoring data is typically collected and stored by SCADA systems. TRC continuous monitoring data stored in the SCADA system at 5-minutes intervals would be compiled and used to calculate the arithmetic averages over 60-minute periods.* ***Those 24 discrete 60-minute average values will be reported*** *and compared to the 1-hour average water quality-based effluent limitation for compliance determination purposes.*

Unlike the draft Staff Report, the proposed text of the Basin Plan Amendment does not mandate specific reporting requirements to be included in discharger permits. The proposed new Footnote (f) to Table 4-2 in the Basin Plan states the following regarding compliance determination:

> *The discharger shall calculate the arithmetic mean for each hour with all the readings within the hour and compare it with the 1-hour average effluent limitation.*

BACWA proposes that the Regional Water Board implement the new WQBELs by requiring reporting of just one value per day (the daily maximum of the 24 hourly calculations), rather than 24 values per day. Any other hourly values exceeding the 1-hour average effluent limitation would also be reported. This approach is similar to the approach currently used for effluent pH reporting in the San Francisco Bay region; pH has instantaneous minimum and maximum effluent limitation, but dischargers only upload daily minima and maxima to CIWQS. It is also consistent with the current monitoring approach for TRC for dischargers with continuous monitoring; only the daily maximum is reported to CIWQS, along with any other excursions above the 1-hour average effluent limit (see, for example, Order No. R2-

2020-0001 for San José-Santa Clara Regional Wastewater Facility or Order No. R2-2020-0024 for East Bay Municipal Utility District).

Virtually all TRC values will be zeros, so the proposed approach will reduce the reporting burden and result in more manageable data sets. With hourly reporting, there would be 43,800 TRC values per 5-year permit cycle – yet the current version of CIWQS can only export 30,000 values at a time. The proposed change is shown below as a markup to page 21 of the draft Staff Report:

> *Continuous on-line TRC effluent monitoring data is typically collected and stored by SCADA systems. TRC continuous monitoring data stored in the SCADA system at 5-minutes intervals would be compiled and used to calculate the arithmetic averages over 60-minute periods. Those 24 discrete 60-minute average values will be ~~reported and~~ compared to the 1-hour average water quality-based effluent limitation for compliance determination purposes. The daily maximum of the 24 discrete values, and any other hourly averages that exceed the 1-hour effluent limitation, will be reported to CIWQS.*

3. The Staff Report should note that dilution ratios will be based on minimum initial dilution, and not limited to 10:1.

BACWA suggests adding language to the Staff Report to identify how dilution factors will be established. BACWA's understanding is that dilution factors will be established using the minimum initial dilution already identified in many discharger permits, which are periodically updated using new or revised dilution studies. Deep water discharger permits typically contain a Discharge Prohibition identifying the minimum initial dilution, which is often used to calculate the WQBEL for ammonia.

BACWA suggests adding this language to Section 4.1 of the draft Staff Report (pages 12-13). The markup below shows it at the end of Section 4.1 for context.

> *These water quality-based effluent limitations would replace the existing Residual Chlorine effluent limitation of 0.0 mg/L in Basin Plan Table 4-2. A footnote to these water quality-based effluent limitations would specify implementation provisions related to these effluent limitations that would:*
>
> > *• provide for establishment of 4-day average TRC water quality-based effluent limitations in NPDES permits using the procedures in the SIP at the discretion of the Water Board, for example, if there is a reasonable potential that the receiving water could exceed the 4-day objective while discharges comply with the 1-hour effluent limitations;*
> >
> > *• explain that water quality-based effluent limitations may be adjusted to account for a mixing zone in a manner consistent with procedures in the State Implementation Policy; and*
> >
> > *• indicate how compliance will be determined with the specified averaging period and analytical method minimum levels.*

Dilution factors (D) used to calculate water quality-based effluent limitations using the formulas above would be based on the minimum initial dilution available at each outfall, and would not be limited to D=9. This is similar to the approach currently used for ammonia in NPDES permits throughout the region. Like ammonia, chlorine is a non-persistent, non-bioaccumulative pollutant.

4. The Minimum Level for Total Residual Chlorine should be listed in in Attachment G, not in the Basin Plan.

The draft Staff Report proposes a minimum level (ML) of 0.05 mg/L for residual chlorine to be included in proposed Footnote (f) to Table 4-2 of the Basin Plan. BACWA encourages the Regional Water Board to consider evidence that a higher ML of 0.1 mg/L is appropriate, as outlined below in Comment #5. BACWA also encourages the Regional Water Board to remove the ML from the markup of Basin Plan Table 4-2, and instead list it in Attachment G *Regional Standard Provisions, and Monitoring and Reporting Requirements (Supplement to Attachment D).* Attachment G is included in each NPDES permit issued in the region.

Analytical methods change over time; as a result, Attachment G, rather than a policy document like the Basin Plan, is the appropriate location to list MLs. Table A of Attachment G lists MLs for dioxin and furan congeners, while Table B of Attachment G lists MLs for the 126 priority pollutants. This clearly demonstrates that Attachment G is the repository for MLs used in the region; chlorine should be no exception. Table B includes individual MLs depending on the specific analytical method used to analyze a given priority pollutant.

Based on a December 2019 survey of BACWA laboratory capabilities (cited as Fono 2020a in the draft Staff Report) there are at least four TRC analytical methods currently in use by those laboratories. For consistency, it is recommended that Attachment G be modified to include a default TRC ML of 0.1 mg/L (see Comment #5). BACWA also requests that narrative language be added to Attachment G to allow for dischargers to develop alternative MLs based on EPA approved MDL protocols (EPA 821-R-16-006, December 2016) and the 1994 EPA guidance described in the staff report and below. Attachment G can be administratively changed more easily than having to process a formal Basin Plan Amendment if there were to be technological, analytical, or other changes in the future that would justify modifying the ML(s).

5. BACWA suggests a technically achievable ML of 0.1 mg/L in lieu of the draft ML of 0.05 mg/L. The draft Basin Plan Amendment ML of 0.05 mg/L is not consistent with laboratory accreditation procedures.

BACWA has previously discussed with Regional Water Board staff members that the proposed ML of 0.05 mg/L is not consistent with the procedures for determining an appropriate Level of Quantitation (LOQ) as required by the TNI laboratory accreditation standards that were adopted by the State Water Board in May 2020 and are scheduled to go into effect January 2021. The TNI standard requires the LOQ to be higher than the detection limit by a wide enough margin that quantified sample results have a very low probability of actually being non-detects, and vice versa. If a verification sample fails this test, then the laboratory must raise the LOQ to a higher value. Normally, the ML, LOQ and lowest

calibration point are the same. However, in this case an ML of 0.05 mg/L is below most laboratories' achievable LOQ, indicating that the proposed ML does not have a sound technical basis and could have adverse unintended consequences on laboratories.

The underlying problem is that the laboratories of BACWA's member agencies cannot meet the "ideal conditions" MDL of 0.01 mg/L proposed in the draft Staff Report. As previously communicated to Regional Water Board Staff (cited as Fono 2020a in the draft Staff Report), a review of nine of the largest BACWA laboratories in December 2019 revealed the only MDLs as low as 0.01 mg/L used laboratory water, not effluent. Of the nine laboratories, the lowest MDL in effluent was 0.02 mg/L, and the median value was 0.07 mg/L.

As an example, one POTW following the December 2016 USEPA MDL protocol cited above (*Definition and Procedure for the determination of the Method Detection Limit, Revision 2*) developed an MDL of 0.04 mg/L in their laboratory for TRC in a deionized water matrix using EPA Method 4500-Cl G. That POTW determined its TRC **LOQ to be 0.1 mg/L**. Its judgment was that an LOQ of 0.05 mg/L would eventually fail verification.

It is also worth noting that the MDLs discussed above were developed in the laboratory, using laboratory-maintained and calibrated instruments, and by trained laboratory technicians. The continuous monitoring on-line analyzer systems are typically calibrated by operators out in the plant near the dechlorination facility given the short hold time for TRC analyses. Grab samples are collected of the dechlorinated effluent stream going to the on-line analyzer and measured for TRC in a benchtop instrument; then the value is compared to the reading being shown by the on-line analyzer. These are considerably different conditions than "ideal" laboratory conditions cited in the draft Staff Report, with many more variables -- including the wastewater matrix itself.

The draft Staff Report's suggestion of 0.05 mg/L as an appropriate ML is based on a misreading of the 1998 U.S EPA response letter guidance (cited as U.S. EPA 1998 in the draft Staff Report). The letter does <u>not</u> recommend 0.05 mg/L as an appropriate ML for wastewater discharges. In fact, this document emphasizes that effluent conditions are typically not "ideal," "ideal" conditions being the basis for the stated 0.01 mg/L published detection limit for Standard Methods 4500 Cl E and G. The 1998 letter states that "[i]n the absence of studies to establish effluent specific detection limits, EPA normally relies on the published test detection limits." However, EPA has regulations that specify the methodology for developing an effluent-specific detection limit. This is the appropriate approach to follow for developing MDLs and MLs for POTWs given as stated in that letter that:

> *The method detection limit is any one wastewater matrix could differ from the published detection limit established under ideal conditions," and "for any given wastewater matrix, the level of quantitation may be higher. It is acceptable for a Region or state permitting authority to establish a default level of quantitation for a given method. The permitting authority may adjust the level of quantitation for an individual discharger based upon a demonstration by the discharger of a higher or lower method detection limit or level of quantitation for its effluent.*

The 1998 guidance also states that "Many [States and Regions] establish a minimum level of 0.1 mg/L when TRC limits are set at or below 0.1 mg/L."

BACWA proposes an ML of 0.1 mg/L in lieu of an ML of 0.05 mg/L. As noted above, if laboratory methods for chlorine detection dramatically improve in the future, or if different MLs are appropriate for different analytical methods, then it could be appropriate to modify the ML by revising Attachment G. No Basin Plan Amendment would be required for this approach.

A markup of the draft staff report and Table 4-2 of the Basin Plan is shown below.

Pages 14-15, Draft Staff Report

To ensure dischargers use the most sensitive analytical methods, we propose a TRC ML of 0.1 ~~0.05~~ mg/L based on U.S. EPA recommendations described below.

To derive a ML where promulgated MLs are not available, U.S. EPA's 1994 Draft National Guidance for Permitting, Monitoring, and Enforcement of Water Quality-Based Effluent Limitations *recommends using a multiplication factor of 3.18 and the method detection limit (MDL). The lowest published MDL for chlorine residual analysis (Standard Methods 4500-Cl E and G) is 0.01 mg/L under ideal conditions. Therefore, an appropriate level of quantitation or ML under ideal conditions would be approximately 0.03 mg/L.*

~~*U.S. EPA permitting division (U.S. EPA 1998) recommended that 0.05 mg/L is the appropriate ML for wastewater discharges and pointed out that some states, like Tennessee and South Carolina, had already started using 0.05 mg/L as the TRC ML. An Ohio EPA general permit for discharges from sewage treatment systems (Ohio 2020) includes 0.05 mg/L as the ML. Massachusetts Town of Rockland's 2006 NPDES permit (NPDES Permit No. MA0101923) has 0.02 mg/L as the ML.*~~

We understand that some permits nationwide have lower ~~higher~~ MLs for TRC, for example, 0.05 ~~0.1~~ mg/L (U.S. EPA 1998) (~~Fono 2020a);~~ However, ~~many of them are for facilities using handheld chlorine devices for compliance monitoring. In this region~~, since actual conditions in the laboratory do not reflect ideal conditions, some NPDES dischargers~~,~~ ~~especially shallow water dischargers, have stated that their laboratories~~ cannot achieve a ML of 0.05 mg/L using TRC Methods 4500-Cl C, F, or G. Factors that affect a method's ML include instrument sensitivity, instrumental precision, variability in extraction processes, and analyst's performance (Chang 2011).

~~*Dischargers that cannot achieve the ML of 0.05 mg/L will likely evaluate whether the cost savings from reducing sodium bisulfite overdosing justifies the cost of improving its laboratory performance in TRC analysis. We expect that many shallow water dischargers will continue sodium bisulfite overdosing to meet the TRC water quality-based effluent limitations. Proposing a higher ML to accommodate dischargers with technical limitations is not appropriate because raising the ML would effectively allow these facilities to discharge chlorine at concentrations that are well above the water quality-*~~

~~*based effluent limitations. For discharges to shallow waters there is little assimilative capacity and these discharges could negatively impact beneficial uses.*~~

Footnote (f), Table 4-2, Basin Plan

The Water Board will establish water quality-based effluent limitations based on the 4-day average chlorine water quality objective if it is deemed necessary to ensure receiving waters meet the 4-day average water quality objective.

The Water Board shall establish minimum levels within each permit. In most cases, the minimum level (which is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method specified sample weights, volumes, and processing steps have been followed) as included in Attachment G shall be no greater than 0.1 ~~0.05~~ mg/L and shall be reported along with the arithmetic mean of the total residual chlorine results. Higher minimum levels may be used where justified, for example, due to discharger-specific factors such as wastewater matrix interferences, analyses conducted under less than "ideal" conditions, or if a discharger must rely on field instruments.

Once again, BACWA would like to thank the Regional Water Board staff on its hard work to bring about this Basin Plan Amendment, which will allow agencies to reallocate resources to provide greater environmental benefits. We also appreciate your attention to our comments. Please do not hesitate to contact us with any questions or concerns.

Respectfully Submitted,

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

Cc: BACWA Executive Board
Mary Lou Esparza, BACWA Permits Committee Chair
Jennie Pang, BACWA Permits Committee Vice-Chair
Dan Jackson, BACWA Laboratory Committee Chair
Nicole Van Aken, BACWA Laboratory Committee Vice-Chair

To fulfill your obligation to submit the technical report, you must complete the survey online at web link. A copy of the survey questions is below.

CLIMATE CHANGE PREPAREDNESS SURVEY

Please be advised that completing this survey is not a substitute for compliance with other reporting requirements or action plans, does not alter permit conditions, and is not a commitment of funding.

Agency:_____

Check facilities your agency is responsible for:

□ Collection □ Interception □ Treatment □ Disposal

Approximate population receiving wastewater service from your agency:_____

1. Has your agency conducted facility or infrastructure assessment(s), or prepared an asset management plan that includes new or increased threats from climate change or future extreme weather events (e.g., sea level rise, storm surge, high intensity precipitation, flooding, drought, or extreme heat)?

   □ Yes □ No □ Work is underway

   1a. Is there a local or a regional assessment or plan (e.g., Climate Action Plan, city or county General Plan, Integrated Regional Water Management Plan) that addresses new or increased threats to infrastructure resulting from climate change, and includes your system?

   □ Yes □ No

   1b. Which components were covered by the assessment/planning? (Check all that apply)

   □ Collection system
   □ Interceptors
   □ Treatment facilities
   □ Disinfection
   □ Discharge facilities/outfalls
   □ Facility access
   □ Pump stations
   □ Wet weather facilities
   □ Power source / Biogas / Cogeneration
   □ Telecommunications

   1c. Are results of the assessment/planning available to the public?

   □ Yes □ No

   If Yes, please provide the website, or where the document(s) can be found:

   _____

2. Select status of measures your agency is implementing to address new or increased threats to infrastructure. Indicate the year of completion (measures already in place), or the expected year of completion (in-progress or planned). For multiple facilities with different status of implementation, please provide notes in item 4.

Type of Measures	Status of Implementation				Completion Year
	In Place	In-progress	Planned	Not Planned	
Expanding capacity	□	□	□	□	
Increasing maintenance or rehabilitation frequency	□	□	□	□	
Modifying treatment capability	□	□	□	□	
Hardening facilities (e.g., installing, increasing or improving barriers, buffers or levees, elevating or floodproofing equipment, or sealing doors, sewer mains or manholes)	□	□	□	□	
Improving, upgrading, or relocating electrical components/instrumentation	□	□	□	□	
Updating maintenance procedures	□	□	□	□	
Updating emergency response and recovery procedures	□	□	□	□	
Securing a backup power or contracts for an alternative power supply	□	□	□	□	
Relocating facilities	□	□	□	□	
Constructing or installing redundant facilities	□	□	□	□	
Other (please describe in item 4): _____	□	□	□	□	
Other (please describe in item 4): _____	□	□	□	□	

3. Can measures to address new or increased threats resulting from climate change be accomplished within your existing or anticipated future budgets?

□ Yes □ No □ Unknown

Please estimate the total financial impact to implement identified measures as a percentage of your annual gross revenues.

_____

_____

4. Notes (please include any other relevant information, and for any response that may need clarification):

   _____

   _____

   _____

   _____

   _____

   _____

   _____

   _____

   _____

   _____

5. CERTIFICATION

   "I certify under penalty of law that to the best of my knowledge and belief, the submitted information in response to the survey is true, accurate, and complete and was prepared by me or under my direction or supervision. I am aware that there are significant penalties for knowingly submitting false information."

   Name: _____Title: _____

   Email: _____

   Phone: _____Date: _____

This completes the survey. Thank you.

Lorien Fono

From: lyris@swrcb18.waterboards.ca.gov
Sent: Monday, October 12, 2020 12:18 PM
To: Lorien Fono
Subject: Toxicity Provisions: Notice of December 1, 2020 Board Meeting, Consideration of Adoption and Document Availability

#

Dear Stakeholders and Interested Parties,

The State Water Board is proposing a statewide program for monitoring and assessing aquatic toxicity in effluent and surface waters. On December 1, 2020, the State Water Board will hold a public meeting to consider adoption of the Toxicity Provisions and Staff Report and the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California (ISWEBE Plan).

There will be no physical location for the meeting. It will be available by video and teleconference only. The public notice on the State Water Board's Toxicity Project website includes instructions for participating in the December 1, 2020 public meeting.

In preparation for the upcoming public meeting, the Proposed Final Toxicity Provisions and Proposed Final Staff Report will be available on or before October 30, 2020.

Responses to written comments submitted during the December 24, 2019 to February 10, 2020 comment period and the July 7, 2020 to August 24, 2020 comment period will also be available on October 30, 2020, or soon thereafter.

Documents will be available on the Statewide Toxicity Provisions web site at: (https://www.waterboards.ca.gov/water_issues/programs/state_implementation_policy/tx_ass_cntrl.html).

If you have any questions or concerns, please contact Zane Poulson at (916) 341-5488 or via email at zane.poulson@waterboards.ca.gov.

#

BAY AREA CLEAN WATER AGENCIES
SUCCESSION PLANNING
Fiscal Year 2021

A. BACWA Principal Representatives

Agency	Representatives	Title & Roles
CCCSD	Lori Schectel	BACWA Chair, CASA State Legislative Committee, Nutrient Governance Steering Committee Alternate, Summit Partners
	Roger Bailey (Alternate)	
	Jean-Marc Petit (Alternate)	
EBDA	Jacqueline Zipkin	BACWA Executive Board Rep, ReNUWIt Industrial Advisory Committee Member
	Jason Warner, Oro Loma (Alternate)	
EBMUD	Eileen White	BACWA Executive Board Rep, Nutrient Management Strategy Governance Steering Committee, Bay Area Regional Reliability Project, SF Estuary Partnership
	Alicia Chakrabarti (Alternate)	
	Yuyun Shang (Alternate)	
	Maura Bonnarens (Alternate)	AWT Certification Committee
SFPUC	Amy Chastain	BACWA Executive Board Rep,
	Greg Norby (Alternate)	
	Jennie Pang (Alternate)	
San Jose	Amit Mutsuddy	BACWA Executive Board Rep, Joint SFEI/ASC Board
	Eric Dunlavey (Alternate)	RMP Steering Comm; Nutrient Management Strategy Comm;

Changes to Principal Representation require submission of a Designation Letter and a Statement of Economic Interest Form within 30 days

B. Other BACWA Representations

Group/Organization	Current Representative	Succession Planning
RMP Technical Committee	Mary Lou Esparza, CCCSD	
	Yuyun Shang, EBMUD	
	Samantha Engelage, Palo Alto (Alternate)	
RMP Steering Committee	Karin North, Palo Alto;	
	Amanda Roa, Delta Diablo	
	Eric Dunlavey, San Jose	
Summit Partners	Lorien Fono, BACWA	
	Lori Schectel, CCCSD	
Joint SFEI/ASC Board	Eileen White, EBMUD	Karin North, Palo Alto, First Board Alternate; Amit Mutsuddy, San Jose, Second Board Alternate
	Lorie Fono, BACWA	Amy Chastain, SFPUC, Alternate
Nutrient Management Strategy Governance Steering Committee	Eric Dunlavey, San Jose	
	Eileen White, EBMUD	
	Jackie Zipkin, EBDA	
	Lori Schectel, Alternate	
NMS Planning Subgroup	Eric Dunlavey, San Jose	
NMS Technical Workgroup	Eric Dunlavey, San Jose	
SWRCB Nutrient SAG	Lorien Fono, BACWA	
NACWA Taskforce on Dental Amalgam	Tim Potter, CCCSD	
BAIRWMP	Cheryl Munoz, City of Hayward;	
	Florence Wedington, EBMUD	
	Lorien Fono, BACWA	
NACWA Emerging Contaminants	Karin North, Palo Alto;	
	Melody LaBella, CCCSD	
CASA State Legislative Committee	Lori Schectel, CCCSD	

CASA Regulatory Workgroup	Lorien Fono, BACWA	
ReNUWIt	Jackie Zipkin, EBDA	
	Karin North, Palo Alto	
ReNUWIt One Water	Jackie Zipkin, EBDA Eric Hansen, SVCW	
RMP Microplastics Liaison	Artem Dyachenko, EBMUD	
Bay Area Regional Reliability Project	Eileen White, EBMUD	
WateReuse Working Group	Cheryl Munoz, City of Hayward;	
SF Estuary Partnership	Eileen White, EBMUD	
	Lorien Fono, BACWA	
CPSC Policy Education Advisory Committee	Colleen Henry, CCCSD	
California Ocean Protection Council	Lorien Fono, BACWA	
Countywide Water Reuse Master Plan	Karin North, Palo Alto	
	Pedro Hernandez, San Jose	
CHARG - Coastal Hazards Adaptation Resiliancy Group	Jackie Zipkin, EBDA	

Changes to BACWA Representation requires Executive Board Approval.

C. BACWA Committees

Committee	Chair	Vice/Co-Chair	Comments	Succession Planning
AIR	Nohemy Revilla, SFPUC, Co-Chair	Randy Schmidt, CCCSD, Co-Chair	CASA Climate Change Group Represer	Nohemy Revilla; Randy Schmidt
BAPPG	Autumn Cleave, SFPUC, and Robert Wilson, Santa Rosa (Co-chairs)	Joe Neugebauer, WCWD Vice-Chair		Autumn Cleave, Chair; Joe Neugebauer (WCWD) V-Chair
BAPPG Pesticide Subcommittee	Karin North, Palo Alto	Robert Wilson, Santa Rosa; Autumn Cleave, SFPUC		Karin North, Robert Wilson, Autumn Cleave
Biosolids	Co-Chair	Co-Chair	Committee Dormant due to biosolids activities being carried out by BABC.	Committee Dormant until further notice
Collection Systems	Andrew Damron, Napa San, Chair	TBD		
InfoShare Ops/Maint	Joaquin Gonzales, Delta Diablo, Co-Chair	Kevin Dickison, EBMUD, Co-Chair		
InfoShare Asset Mgmt	Co-Chair	Co-Chair	Committee planned to restart in FY21	Dana Lawson, Aaron Johnson, Co-Chairs
Laboratory	Dan Jackson, Union San, Chair	Nicole Van Aken, FSSD, Vice-Chair		
Permits	Mary Lou Esparza, CCCSD Chair	Jennie Pang, SFPUC, Vice-Chair		
Pretreatment	Tim Potter, CCCSD, Co-Chair	Michael Dunning, Union San, Co-Chair		
Recycled Water	Stefanie Olsen, DSRSD, Co-Chair	Reena Thomas, EBMUD, Co-Chair		

Changes to Committee Leadership will be reported annually and intra-year by Executive Director to Executive Board

BAY AREA CLEAN WATER AGENCIES
ANNUAL MEETING DRAFT PROGRAM
February 19, 2021
Webinar

TIME	DESCRIPTION	SPEAKER
9:00 am - 9:15 am	**Welcome/Introduction and Year in Review** (including business issues)	
9:15 am - 10:30 am	**BAAQMD/EPA/SWRCB/RWQCB/ Priorities** Bay Area Air Quality Management District State Water Resources Control Board member San Francisco Water Board member San Francisco Water Board staff Q&A	
10:30 am - 10:45 am	**Break**	
10:45 am - 12:00pm	**BACWA Hot Topics** PFAS Study Biosolids Chlorine Residual BPA	
12:00 pm - 12:45 pm	**Lunch**	Breakout rooms
12:45 pm - 12:55 pm	**BACWA Leadership Recognition**	
12:55 pm - 1:25 pm	**BACWA Hot Topics** AIR Issues climate change vulnerability planning/regional collaborations	
1:25 pm - 1:35 pm	**Nutrients - Overview** Overview of 2nd WS Permit/Governance Update	
1:35 pm - 2:20 pm	**Nutrients - Regulatory Update** 2021 Group Annual Report Nature Based Solutions Study Regional Recycled Water Report Q & A	
2:20 pm - 2:55 pm	**Nutrients - Technical Update** Update on the Science Plan and Findings	
2:55 pm - 3:00 pm	**Annual Meeting Wrap-Up**	

AIR Committee –
Report to BACWA Board

AIR Committee Meeting on: 09/02/2020
Executive Board Meeting Date: 10/16/2020
Committee Co-Chairs: Nohemy Revilla and Randy Schmidt

Committee Request for Board Action: None

BAAQMD-BACWA Collaboration

Given there are a few hot topics the Air District is pushing forward this fiscal year that could significantly impact wastewater sector operations, there is great interest in starting more frequent meetings between BAAQMD staff and BACWA to encourage better communication and discuss targeted and timely topics (similar to how BACWA already does with the RWQCB). An important topic raised for discussion was Air Toxics and the various local and state rules that exist and are being updated, including:

- BAAQMD's Rule 11-18 (Risk Reduction from Air Toxic Emissions at Existing Facilities)
- CARB's Criteria Pollutant and Toxic Emissions Reporting (CTR) Regulation
- CARB's AB 2588 Air Toxics "Hot Spots" Emissions Inventory Criteria and Guidance (EICG) Regulation

The group would like to discuss with BAAQMD how these programs overlap in timing, costs, and compliance. It was suggested that the meeting include BAAQMD representatives with decision- and policy-making authority. The BACWA AIR Committee is coordinating with BAAQMD to set an initial meeting for later in 2020 (October-November).

Air Toxics Updates

BAAQMD Rule 11-18: Risk Reduction from Air Toxic Emissions at Existing Facilities

The BAAQMD's Rule 11-18 Implementation Workgroup met in August and staff posted a number documents related to Phase I facilities. All POTWs are in Phase II. The BAAQMD plans to start sending initial requests for information to Phase II facilities by the end of 2020, beginning with those plants having an estimated prioritization score >100. POTWs are expected to respond to data requests within 2-4 months.

Criteria Pollutant and Toxic Emissions Reporting (CTR) and AB 2588 Air Toxics "Hot Spots" Emission Inventory Criteria and Guidance (EICG) Updates

CARB will be aligning the implementation of the CTR and EICG amendments. Both amendments are scheduled to be adopted by CARB in November 2020. CARB confirmed that most facilities emitting ≥4 tpy will report 2022 data in 2023 as an initial annual report. Subsequent reports will be required annually commencing with 2026 data to be reported in 2027. The 2023 report will include the compounds the facility is currently reporting (business as usual). For the 2027 report, CARB stated wastewater sector has until 2026 to perform "two-step process" in collaboration with CARB and air districts to determine the shortlist of compounds to report.

Los Angeles County Sanitation Districts (LACSD) has done some sampling at the headworks and of the more than 600 existing compounds and more than 800 proposed compounds included in the Appendix A-1 list, LACSD has detected only 10 in the headworks foul air. Additional data from other participating agencies is being collected and reviewed. CASA will be meeting monthly with CARB and CAPCOA to draft a formal outline of the wastewater sector's approach to identifying relevant toxics for reporting based on the data collected, conversations with CARB, and performing a Pooled Emissions Estimation Program (PEEP) study (like the one performed in 1990).

Portable Equipment Registration Program (PERP)

The BAAQMD has clarified Rule 2-1-105 (which exempts equipment registered under PERP) that if PERP registered equipment is part of a stationary source (even if it moves) the "portable equipment" needs to be permitted by BAAQMD. PERP equipment that is used as a necessary part of a stationary source operation does not qualify for the permit exemption in Regulation 2, Rule 1, Section 105. The owner/operator of such PERP equipment must obtain a District permit. "Sewage Treatment Plants" are specifically identified as affected facilities.

Climate Pollutants

SBS 1383 (Short-Lived Climate Pollution Reduction)

This regulation targets methane reduction via diversion of organic waste from landfills to anaerobic digestion or composting facilities (the products of which are to be recycled). Analysis of the Progress Towards SB 1383 was released August 18th and a webinar held August 25th. Final adoption of the regulation is targeted for this year. There is no delay in implementation of regulations expected due to COVID - state enforcement begins in 2022, local enforcement begins in 2024, and compliance is still required by 2025. The SWRQCB Co-Digestion Capacity Analysis was also released and CWEA-CASA hosted a webinar on September 9th.

BAAQMD's Proposed Regulation 13 (Climate Pollutants)

Regulation 13 rule development is currently suspended due to COVID-19. However, BAAQMD continues to engage with BACWA in an effort to develop a baseline understanding of current methane (and VOC) management practices. Developing a summary of current methane management practices requires a review of permits, OSHA requirements, and beneficial use practices. This is an excellent opportunity to continue to educate and inform BAAQMD about POTW operations and the steps already in place to capture and reduce emissions. BAAQMD is also convening an Organic Recovery Technical Working Group (TWG) which will hopefully be meeting soon.

COVID-19: Regulatory Contingency Planning

The CASA website has many useful and timely resources. Members are encouraged to reach out or share information with the AIR committee.

Next AIR Committee Meeting: January 13, 2021

Recycled Water Committee –
Report to BACWA Board

Recycled Water Committee Meeting on: 9/22/2020
Executive Board Meeting Date: 10/16/2020
Committee Chairs: Stefanie Olson, Reena Thomas

Committee Request for Board Action: none

Detailed notes from meetings are posted online.
36 attendees (all participating remotely) representing 13 member agencies

Regional Recycled Water Evaluation Update

Mike Falk of HDR provided an update on the Regional Recycled Water Evaluation:

- Responses to the Request for Information (RFI) have been compiled, and Mike shared preliminary results with the group regarding volumes of recycled water delivered, future plans for increased deliveries, and perceived barriers and drivers to recycled water project implementation.
- A template for individual plant reports was circulated to the Recycled Water Committee for review, with a due date of October 6th for comments. The RPM will compile comments and deliver them to the HDR/Woodard & Curran team in the week of October 12th. Once the template is finalized, the project team will begin preparing the individual plant reports, which are targeted for completion later in 2021.

Trucking and Distributing Water Across Jurisdictions

The group discussed regulatory and institutional barriers to distribution of recycled water by truck across jurisdictional boundaries. EBMUD realized this was a potential concern during their recent pilot project of a residential fill station, which was restricted to employee use only. District employees living outside of the service area were not eligible to use the fill station. This institutional barrier also reduces the reach of the District's commercial truck fill program. The group discussed the potential for a regional MOU that would allow distribution across jurisdictional boundaries. EBMUD may provide more information about legal barriers for a future follow-up discussion (e.g., indemnification clauses between agencies and customers).

Updates on funding opportunities:

No new funding opportunities have been announced for the federal WIIN program or at the state level for Round 2 of Prop 1. Local agencies and the state are finishing up agreements for Round 1 of Prop 1.

There is a 3-day summit in October regarding equitable involvement in regional water planning that is relevant to the IRWM program. https://www.lgc.org/summit/

EPA's Draft National Water Reuse Action Plan

This plan will be updated in 2021, and those involved with updating it are soliciting feedback on research questions related to the next update. One way to provide feedback is to fill out the stakeholder survey from the Water Research Foundation and State Water Board. The survey due date is **Friday, October 9th.**

https://www.surveygizmo.com/s3/5811760/Water-Reuse-Research-Strategy-Stakeholder-Survey

Transition to Statewide General Order

The Monitoring and Reporting Program for enrollment in the statewide general order requires quarterly use area monitoring, which is more frequent than required by the previous order. Some agencies are switching to using online forms and/or relying more heavily on customer self-inspections rather than staff inspections. DSRSD shared their customer self-inspection form, which is compiled into a table in the Annual Report. Other agencies are successfully using PDF forms for customer self-inspections.

Legislation and Regulatory Updates

i. AB 2560 (Quirk) is on the Governor's Desk. This is a measure that will require greater transparency and public participation when establishing Notification and Response Levels for water quality, similar to the existing process for MDLs. WateReuse California (WRCA) supports the measure.
ii. AB 3030 (Kalra) was held in the Senate Appropriations Committee on suspense. This means that it most likely dead for the year. (The two-year Legislative session ends August 31.) Recently WRCA opposed this measure, which required all waters and lands in California be subject to a 30% conservation goal. While a laudable goal, it was not clear how the regulatory agencies would implement the new goals with respect to recycled water.
iii. AB 574 – DPR Expert Panel. WRCA is working with the Water Board and the Legislature to find funding to begin work on the "expert panel" required by AB 574 (Quirk 2017). WRCA is discussing with agencies that can help to fund the expert panel and needs to get the water board to accept this proposal of outside funding assistance.
iv. WRCA is working to increase efficiencies and sustainable funding levels for the CWSRF Program. WRCA is exploring other funding mechanisms for the program and reviewing other state's programs and approaches. CASA-WRCA surveyed members regarding experiences with the CWSRF loan program to examine efficiencies in staffing and programmatic review to increase available funding for the program.
ii. WaterKeeper Suit. In August, the LA Superior court ruled for the LA WaterKeeper and against the State Water Board in the case regarding City of LA's discharge to rivers and oceans. The State Board will need to complete an analysis on whether it is wasteful to discharge to the LA River and/or to the ocean. This currently affects 4 WWTPs -- Hyperion, Tillman, Burbank, LA Glendale - but the logic could be extended to other regions. The ruling is significant because the State Board must do the analysis, but has wide discretion on what to include in the analysis such as other benefits of WW discharge. The State could come up with mandates and timelines to reduce WW discharge. Link to the court ruling: https://lawaterkeeper.org/wp-content/uploads/2020/08/WUU-Case-Final-Decision.pdf Link to a news article: https://yovenice.com/2020/08/12/state-must-analyze-practice-of-dumping-billions-of-gallons-of-wastewater-into-sea/

Regional Water Board Receives Update on Recycled Water

The September meeting of the Regional Water Board included several presentations regarding recycled water. Links to the Regional Water Board Recycled Water staff report and recording of the presentation and discussion (item starts at 3:33).

Next Meeting – Tuesday, November 17, 2020, 10:30 am to 12:30 pm, via Zoom

Collection Systems Committee
Report to BACWA Board

Collection Systems Committee Meeting: 09/24/20
Executive Board Meeting Date: 10/16/2020
Committee Chair: Andrew Damron (Napa San)

Committee Request for Board Action: None

36 attendees, representing 18 member agencies.

New Resource for Training Collection System Operators

Former BACWA collection system committee members Andy Morrison, Sam Rose, and Lenny Rather provided an overview of their new book, *Notes from the Field,* containing practical tips and best practices for collection system operators. More information about the book is available at https://www.cwea.org/news/dkf-partners-with-industry-experts-to-develop-new-reference-guide-for-collection-system-operators/ and the book can be purchased at https://www.dkfsolutionsgroup.com/store.

COVID-19 updates and attendee roundtable

- Attendees discussed COVID prevention strategies such as staggering shifts, physically distancing crews within the available building space, working in bonded pairs, driving alone in vehicles, and wearing masks.
- Some agencies are allowing multiple workers per vehicle; others are not.
- Public complaints are common if/when maintenance staff are seen working without masks.
- Several noted that their vehicles now carry signage noting work safety rules, and asking the public to keep a safe distance.
- Several agencies noted that they have not yet resumed smoke testing, and do not plan to do so this fall.
- Two agencies that had been affected by wipes in the spring noted that the problem is now less severe.
- Regional Water Board staff has not resumed field inspections but are completing "desk audits" and focusing on SSOs and compliance by large agencies. They will resume field inspections later.

Leadership

- The vice chair position of the committee is open.

SSS WDR Update

State Water Board staff have completed an internal administrative draft of the SSS-WDR update and are circulating for internal review. Staff will soon begin to brief State Water Board members individually; for 3 out of the 5 Board members, this is a new topic. The update is behind schedule since it is not a high priority, but the document may be ready for a public review in 2021. There will be stakeholder meetings before the SSS-WDR Update is released for public review.

The SSS-WDR update may include requirements related to managing for resiliency, and for reducing exfiltration. SSMP audits may be required to be posted online. Enrollees may also need to post maps of the collection systems online, and the group discussed security and other implications of posting different types of maps online (PDF vs GIS; pipe networks vs. sewershed boundaries).

Announcements and Upcoming Trainings

- 2020 Sewer and Stormwater Sewer Summit – Virtual Event, October 15
- CWEA Annual Conference – Virtual Event, October 19-23
- CWEA Northern Safety Day – Virtual Event, October 28. Main topic is Cal/OSHA COVID-19 Guidance Documents and Training

Next Collection System Committee Meeting

Our next committee meeting will be held on Thursday, November 19th, at 10 AM via Zoom.

BAPPG Committee
Report to BACWA Board

Meeting Date: October 7, 2020
Executive Board Meeting Date: October 16, 2020
BAPPG Chairs: Autumn Cleave, Robert Wilson

Detailed Committee Notes are available online.
30 attendees representing 22 member agencies

Regional Water Board Report (Debbie Phan)

- At its October 14th Board meeting, the Regional Water Board will award the City of Berkeley with the Dr. Teng-Chung Wu Pollution Prevention Award for passing its Single Use Foodware and Litter Reduction Ordinance, as described in this Staff Report.

Updates on Committee Activity

- The Fall outreach campaign on flushable wipes by SGA is underway.

Pesticides:

- Committee continues to track pesticide registration for the purpose of submitting comment letters to EPA.
- Stephanie Hughes will present to Foothill College's Vet Tech program on October 8th.

Safer Cleaning Products:

- SF Department of the Environment invited BAPPG participation on a Safer Cleaning Campaign that they are developing for Q1 2021. The City has already released information specific to COVID disinfection at https://sfenvironment.org/download/safer-cleaning-and-disinfection-for-covid19

Main Discussion: Distance Learning

- Ben Lavender of CCCSD demonstrated a distance learning lesson that can be performed in a video conference using readily available materials. The activity directs students to observe the breakdown of toilet paper in a clear container of water, then compare it to the breakdown (or not) of other materials like a napkin, wipe, or paper towel. Students record or share their observations using prompts like "I notice…", "I wonder…", and "It reminds me of…"
- Jan Robertson, K-12 Science Coach from the Mt Diablo Unified School District, joined in to provide input on how to tie wastewater outreach into state science standards. The Next Generation Science standards and California Environmental Principles and Concepts are examples of standards to use for reference.
- The group discussed strategies for connecting with classroom teachers.
- The group discussed challenges with preparing outreach videos. Some members have prepared outreach videos in-house (such as a tour of the WWTP or lab, or classroom activities related to wastewater), while others reported better results using a professional videography team. SFPUC has a few videos available at https://www.sfwater.org/index.aspx?page=9, , and SVCW is working on a few more.

Next BAPPG General Meeting: December 2, 2020

Executive Director's Report to the Board

September 2020

NUTRIENTS:

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

- Participated in 9/1 Assessment Framework meeting
- Attended and drafted summary of 9/2 NMS Planning Subcommittee meeting
- Attended and drafted minutes for 9/11 NMS Steering Committee meeting
- Communicated with NST about materials related to WSP negotiations
- Discussed NMS issues with Science Manager
- Discussed NMS issues with individual Executive Board members
- Developed draft RFP for NMS technical review
- Recommended amendments to NMS Charter to address questions about Brown Act implication of BACWA Executive Board member participation in NMS meetings

EXECUTIVE BOARD MEETING AND SUPPORT

- Edited minutes and action items from 8/21 meeting
- Worked with BACWA staff to plan and manage 9/17-9/18 "Online Pardee" meeting
- Conducted the "Online Pardee" agenda review with the BACWA Chair
- Researched and implemented digital tools for remote workshopping and strategic planning
- Continued to track all action items to completion
- Planned and led 9/9 Strategic Planning Meeting Part 1
- Discussed Power Supply Reliability Infoshare meeting with Executive Board member
- Discussed exfiltration issues with Executive Board member

COVID-19:

- Reviewed COVID-WEB grant support letter
- Participated in 9/21 COVID-WEB meeting

COMMITTEES:

- Participated in 9/22 Recycled Water Committee meeting
- Participated in 9/24 Collection Systems Committee meeting
- Planned and led 9/30 Managers Roundtable meeting

REGULATORY:

- Discussed PFAS facility selection with SFEI, and contract for analysis with SFEI and SGS AXYS
- Reviewed and discussed regional PFAS study SOW on calls with Water Board, RMP staff, and SFO
- Discussed PFAS Phase I sampling questionnaire with RPM, and Lab and Permits committee

- Reviewed chlorine residual comment letter
- Discussed sea level rise planning with Regional Water Board
- Attended 9/9 Regional Water Board meeting
- Attended 9/9 CWEA/CASA webinar on codigestion capacity
- Discussed a range of Regulatory issues and planned “Online Pardee” meeting with RWB EO

FINANCE:

- Reviewed the monthly BACWA financial reports, summary, and budget to actual tracking sheet for July 2020
- Reviewed reserve level to plan for NMS payments for FY21
- Updated 5-year plan to reflect FY21 starting fund balances
- Reviewed and approved invoices
- Reviewed invoices to Associates
- Reviewed SLIP Insurance Application
- Developed Contract and Authorized for EOA support of Chlorine Residual Basin Plan Amendment comments

COLLABORATIONS:

- Communicated with CASA staff on various regulatory issues
- Planned 9/16 Summit Partners PFAS meeting and moderated sessions

ASC

- Reviewed materials sent via email by ASC ED
- Participated in 9/25 ASC Board meeting

BABC:

- Participated in BABC teleconference meeting on 9/14 and drafted meeting summary

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.
- Developed and responded to numerous emails and phone calls as part of the conduct of BACWA business on a day-to-day basis.
- Planned and held onboarding meeting with incoming RPM and interim RPM

MISCELLANEOUS MEETINGS/CALLS:

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

BACWA ACTION ITEMS

Number	Subject	Task	Responsibiity	Deadline	Status
	Action Items from August 21, 2020 BACWA Executive Board Meeting		**resp.**	**deadline**	**status**
2021.09.08	Draft Annual Meeting agenda	BACWA ED to bring draft agenda to board meeting in October	ED	9/30/2020	complete
2021.09.09	Rule 11-18 Air Toxics	BACWA staff to work with consultant to share with BACWA board when next Rule 11-18 meeting is	ED	9/30/2020	complete
2021.09.10	Chlorine Residual BPA comments	BACWA ED proposes auhorizing contract up to $5000 for EOA consulting on final stages	ED	9/30/2020	complete
2021.08.05	Brown Act requirements on noticing affiliated meetings	BACWA staff to update NMS charter	ED	8/30/2020	complete
2021.08.06	Nov Annual Meeting	BACWA staff to invite RWB member Jim McGrath (?,BAAQMD Jack Broadbent, and other invitees TBD	ED	8/30/2020	complete
2021.08.07	NCWA Cost of Wipes report	BACWA staff to determine what other organizations will appear on the report and will share. BACWA staff will delay submission until committee chair can review. BACWA staff will place logo on report.	ED	8/30/2020	complete
	Action Items Remaining from Previous BACWA Executive Board Meetings				
2019.12.46	Risk reduction	Reach out to cities with public health clinics to work with CIEA	RPM	2/29/2020	Completed
2019.8.12	BAAQMD Permit Backlog	Set up separate meeting to discuss with Air District management	RPM/ED	11/30/2019	completed
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

FY21: 10 of 10 Action items completed
FY20: *67 of 70 Action Items completed*
FY19: *109 of 110 action Items completed*
FY18: *66 of 66 Action Items completed*
FY17: *90 of 90 Action Items completed*

Regulatory Program Manager's Report to the Board

September 2020

NUTRIENTS: Attended Nutrient Management Strategy Meeting regarding modeling. Reviewed template of Recycled Water Study prepared by HDR. Circulated template to Recycled Water committee for review.

BACWA BULLETIN: Received training on Bulletin preparation and drafted October Bulletin.

CHLORINE RESIDUAL: Prepared draft comment letter on Chlorine Basin Plan Amendment; circulated to Permits committee and Lab committee; circulated to Executive Board for review; edited letter to incorporate comments received.

CECs: Reviewed member survey on PFAS sampling procedures; discussed with Lab committee leadership.

STRATEGIC PLAN: Attended Strategic Planning workshop and prepared notes.

COMMITTEE SUPPORT:
BABC – Attended committee meeting and prepared for handoff of committee support role.
BAPPG – Updated committee website.
Collection Systems – Attended meeting, prepared Board report, and scheduled next virtual meeting.
Permits – Responded to member question regarding chronic toxicity testing. Updated permits database.
Recycled Water –Attended meeting, prepared meeting summary and Board report, and scheduled next virtual meeting.
Executive Board – Attended virtual Pardee retreat and took notes.

ADMINISTRATION/STAFF MEETING – Participated in Onboarding training sessions. Learned to manage committee Google Groups. Learned to update website.

MEETINGS ATTENDED:
Strategic Planning Workshop (9/9)
Nutrient Management Strategy (9/11)
BABC (9/14)
Pardee (9/17 – 9/18)
Recycled Water Committee (9/22)
Collection Systems Committee (9/24)

Lorien Fono

From: Jared Voskuhl <JVoskuhl@casaweb.org>
Sent: Wednesday, October 7, 2020 4:00 PM
Subject: [Regulatory] CASA October 2020 Regulatory Update

Categories: Board Packet

Good afternoon,

We hope you are staying healthy and safe. Please find below regulatory water updates from the summer and for October. Our next workgroup meetings will be through Zoom on October 15. If interested in the outcomes of this year's legislative term, please see CASA's 2020 session-end wrap up from Jessica Gauger, here, and, make sure to register and participate in CWEA's virtual annual conference during the third week of the month! Please let us know if you encounter any problems accessing these materials.

Thank you,
The RWG Team

WATER

SWB Set to Release Final Draft of the Toxicity Provisions on October 30
On October 30, the State Water Resource Control Board (State Water Board/SWB) will release the final materials in support of the revised toxicity provisions. CASA submitted a comment letter on August 24 to the State Water Board on the second draft of the revised Toxicity Provisions and updated Staff Report that were released on July 7. The provisions will establish numeric water quality objectives for both acute and chronic toxicity and a program of implementation for dischargers to surface waters to control toxicity. Staff's summary of the changes is available here, and their analysis of Economic Considerations for the regulations and draft Response to Comments upon the 2018 draft are each hyperlinked. Staff held a workshop on July 29 to review the revisions for which the presentation is available here and the video is archived here. CASA's toxicity subgroup will convene on October 9 to discuss developments in advance of the final version. Please reach out to Jared Voskuhl if you have comments or questions.

October 16 Due Date for 2024 Integrated Reports – Supplemental Info Will Be Due October 30
Your data for the 2024 integrated reports will be due to the State Water Board on October 16, 2020. After initially requiring the data to be submitted to CEDEN, the State Water Board will allow for it to be submitted through CIWQS. However, the State Water Board will need supplemental information to assist the datasets assessment, so in the next week, you should expect to see an additional letter from the SWB noticing what they need, which likely will include a summary of the dataset (e.g. facility name, sample sites, data types), information about data quality, and a contact

person for follow up questions, as well as ask respondents to access an online tool to confirm or provide us with station location information (latitude, longitude, datum). Please reach out to Lori Webber at the State Water Board if you have questions.

SWB Sets Water Quality Fees for 2020-21

On September 15, the State Water Board adopted its 2020-21 fee schedule, and WDR fees will increase by 8.5% and NPDES fees by 9.3%. While Staff had indicated in June before the final negotiated budget that their intent was not to increase fees this year at all, Staff noted at their August 6 workshop that it may not be possible, and requested stakeholder input on a few different scenarios.

CASA submitted comments in August to the SWB on the different options presented (p. 8) to phase in the increases for permittees, recommending option A. In September, in the formal meeting materials for adoption, Staff recommended the Board adopt Option C, and CASA submitted further comments and testified to the Board on this, as well. Ultimately, after a lengthy deliberation during the Board meeting, the State Water Board selected option B. We are appreciative for the Board adopting the middle position and to our members for their engagement on this issue over the last 9 months.

SWB Release PFAS Sampling Guidelines and a General Order for Drinking Water Monitoring

In July, the State Water Resources Control Board (State Water Board) released its Investigative Order of PFAS at publicly owned treatment works. On September 9, the State Water Board released additional PFAS Sampling Guidelines for Non-Drinking Water matrices to assist POTW's collections of samples for analysis with nonapproved methods. If you have questions about complying with the Order, you may review the State Water Board's excellent FAQ for nondrinking water sampling or reach out to Wendy Linck on the State Water Board team.

Additionally, on August 27, after the first year of sampling was completed by public water systems under the investigative order, the State Water Board issued a General Order for continued monitoring to agencies that had detections in Phase 1.

Clean Water Summit Partner's Host PFAS Workshop – Presentations Available Online

On September 16, the Clean Water Summit Partners hosted a PFAS Workshop on the State Water Board's Investigative Order. There'll be an event page soon with the materials archived, but for now, you may view hyperlinked videos of the different speakers' presentations: Ryan Batjiaka (SFPUC/PFAS in Biosolids), Tom Bruton (GSPI/Background on PFAS), Scott Hatton (R5/Groundwater Monitoring Plans), David Kaminski (QED/Water Sampling Equipment Option), Wendy Linck (SWB/Investigation and Q&A), Taryn McKnight (Eurofins/Analytical Methods), Steven Mullery (SWB/Geotracker Data Entry), Jacob Oaxaca (SWB/Accreditation of Nonapproved Methods), Open Q&A Moderated by Steve Jepsen.

SWB and OPC Reconvenes Science Advisory Panel on CECs in Aquatic Ecosystems

The week of October 12, the State Water Board and Ocean Protection Council (OPC) will kick-off their reconvening of the Science Advisory Panel on Constituents of Emerging Concern (CECs) in Aquatic Ecosystems to review existing scientific literature and determine the state of current scientific knowledge on the risks of CECs impacting human health and the environment in freshwater, coastal, and marine ecosystems of the State, and to update 2012 recommendations to the State Water Board to improve the understanding of CECs to protect public health and the environment.

The Southern California Coastal Water Research Project (SCCWRP), is managing the Panel and will be hosting a series of public meetings via Zoom Monday through Thursday, October 12 - 15 from 8am to 10am each morning. The meetings will include technical presentations for the Panel's consideration, and the agenda for the series includes CEC management approaches, scientific advances in the field, and intended use of panel products. This series is free and open to the public, and you may register here.

SWB and OPC Hosting Microplastics Webinar on Health Effects and Management Thresholds
Beginning October 19 for five consecutive Monday mornings, the State Water Board and the OPC will host a virtual series of meetings with SCCWRP, the San Francisco Estuary Institute (SFEI), and the University of Toronto about the health effects of microplastics that will serve as an initial step toward developing microplastics management thresholds for California in both aquatic ecosystems and drinking water. This webinar series is free and open to the public and will take place over Zoom. Participation space is limited, but a recording will be available. You may register for it here.

CASA Submits Comments on the SD R9 Board's Revised Biological Objectives
On August 14, the San Diego Regional Water Board released revisions to the proposed Basin Plan Amendments (BPA). On September 4, CASA and CVCWA submitted comments, which you may view here. The adoption hearing originally was scheduled for October 14, but it has been postponed until the November or December board meeting for unrelated reasons. The final language and response to comments will be released approximately 30 days before the BPA is scheduled for adoption. Board staff are available to discuss the proposed revisions, and you should reach out to Chad Loflen to arrange meeting.

CASA Submits Comments on US EPA WQ Criteria for Lakes and Reservoirs
On August 19, CASA and CVCWA submitted comments on the US EPA's draft numeric nutrient criteria recommendations for lakes and reservoirs, urging their incorporation of a holistic watershed approach to a unique problem which cannot be addressed by relying on the traditional regulatory tools. NACWA also submitted extensive remarks which are available here.

CASA Submits Comments on US EPA Grant Program for Overflows
On September 3, CASA submitted comments to the US EPA for a proposed rulemaking that would update the formula and bases for awards from a small, $28 million, grant program intended for remedial projects related to different types of overflows. NACWA also submitted comments which are available here.

US EPA Proposes Updated Guidance to Financial Capability Assessment – Comments Due 10/19
On September 18, the US EPA released an updated guidance on financial capability assessments (FCA) in order to move past the 1997 FCA Guidance and the 2014 FCA Framework. Per the federal register notice, comments are due by October 19, 2020. In a 2019 report by NACWA, AWWA, and WEF that was submitted to US EPA, new metrics were outlined that are partially included in the new proposal (in combination with some old approaches). The proposed 2020 guidance for FCA embraces stakeholder priorities and provides tools to more easily articulate local financial circumstances, while advancing the mutual goal to protect clean water. When finalized, EPA expects to use the 2020 FCA to support negotiations of schedules for implementing CWA requirements for municipalities and local authorities. EPA is requesting comment on approaches for assessing financial capability of communities to meet CWA obligations. Please reach out to Adam Link if you have comments or concerns.

US EPA Releases Revised Financial Assistance Regulations – Comments Due 11/30

On September 30, the US EPA released the federal register notice for an interim final rule on uniform administrative requirements, cost principles, and audit requirements for Federal awards. This regulatory action revises certain provisions of Environmental Protection Agency (EPA) financial assistance regulations to provide more flexibility to recipients and streamline dispute procedures for applicants and recipients of EPA financial assistance. The revisions to this rule are exempt from the notice and comment requirements of the Administrative Procedure Act (APA) because it is a matter relating to agency management. Comments are due on November 30, 2020, but the effective date will be November 12 for awards or funds under the final approved revisions. Please reach out to Adam Link if you have comments or concerns.

2020 California Financing Coordinating Committee Virtual Funding Fair

On October 22, the California Financing Coordinating Committee (CFCC) is hosting a free virtual funding fair which will provide opportunities to learn more about available grant, loan, and bond financing options for infrastructure projects from federal, state, and local agencies. The 2020 Funding Fair Handbook is also available here. Representatives from water industry professionals, public works, local governments, and California Native American Tribes should attend, including city managers and planners, economic development and engineering professionals, officials from privately owned facilities, water and irrigation district managers, financial advisors, and project consultants. For more information, please visit the fair website.

Ocean Acidification Models to be Featured at December CWQMC Meeting

The California Water Quality Monitoring Council's December 3 meeting will feature presentations of the different ocean acidification models that researchers in California are developing and utilizing. The Council's last meeting on September 24 included presentations on wastewater based epidemiology, amongst other items on the 9/24 agenda. Please reach out to Jared Voskuhl with any questions.

Sewershed Protection Article in *Science*

The latest issue of *Science* features an article which highlights the intersection of urban reuse projects and industrial discharges to renew the call for protection of sewersheds. Thank you to Eric Hansen from Silicon Valley Clean Water for sharing the piece with CASA. You may review the article online here, but a key takeaway is, "Regulations for sewershed protection must take into account the potential risks that chemicals in the sewershed pose to public health, as well as the cost and effectiveness of existing technologies to purify wastewater to drinking water standards. In sewersheds with higher risk of drinking water contamination due to large volumes of industrial chemical discharges to a sewershed relative to the volume of municipal wastewater, sewershed protection regulations might prohibit potable water reuse or require more extensive treatment and monitoring." Please reach out to Jared Voskuhl if you're interested in dialoguing about the article.

SWB Survey Results of Impacts from COVID-19

Over the summer, CASA and the State Water Board collaborated on developing a survey to gain a better understanding of how COVID-19 has affected the budget and operations of collection systems and wastewater treatment facilities. The State Water Board released the survey in July, and during the State Water Board's August 18 meeting, Max Gomberg provided an initial synopsis on the fiscal impacts. The State Water Board has now provided CASA with the results with agency-specific information removed, and some preliminary analysis follows.

Nearly 275 agencies participated, and 46% reported service revenue loss. Of those 79 agencies provided more specific details about the extent. 66% estimated their service revenue loss was between 0 and 10%, 18% estimated it was between 11 and 20%, and 14% estimated they suffered

over 30% percent revenue loss. Likewise for our agencies' customers, 37% of the survey respondents reported an increase in delinquent payments. With regard to wet wipes, 50% of agencies responded they had experienced a notable increase of them in their system. 25% of agencies reported experiencing system operational personnel shortages, and 22% reported applying for agency relief from FEMA or CalOES. While there is further analysis needed of this information, the immediate portrait it provides of the impacts to California sanitation and collection systems raises concerns. Thank you to all of our members who participated in the survey and partnered with us on to learn about the impacts you're experiencing. Please reach out to Jared Voskuhl if you're interested in the dataset.

WRF Survey of Industry Types in Collection Systems
The Water Research Foundation, in conjunction with Jacobs, Carollo, and Southern Nevada Water Authority, has released a survey (WRF 4960) with approximately 50 questions about industrial pretreatment programs and the types of permitted industries, to understand the impact of industrial contaminants on potable reuse systems. The survey targets publicly available information, and all responses will be reported anonymously. Results from the survey will be sent to each participating utility. Survey responses are due by October 30, and the list of questions are available here. Please reach out to Talia Assi and Tyler Nading, if you have any questions.

WRF Water Reuse Research Survey for US EPA's National Water Reuse Action Plan
The Water Research Foundation also has released a survey, as part of the implementation of Action 2.7.2 of US EPA's National Water Reuse Action Plan, to develop a national water reuse research strategy. You may participate in this survey to gauge the relevance of water reuse research questions to your present and future needs. If your operations span disparate regions, source waters and/or end uses with different needs, you may also forward the survey to an appropriate team member to complete. Please reach out if you have questions to Erin Partlan or Julie Minton who are administering the survey through the Water Research Foundation and partners WateReuse Association and the Water Environment Federation.

SWB Meeting Agendas & Executive Director's Reports
Here are the State Water Board agendas for their meetings since our last monthly message: August 18 (sewershed surveillance), September 1 (once-through cooling policy), September 15 (water quality fees, ELAP MOU), October 6 & 7 (PFAS) as well as the Executive Director's Report for September (annual volumetric reporting submissions update.) They will meet next on October 20 & 21, which possibly may feature the convening of all of the board members of the State and Regional Water Boards for their annual Water Quality Coordinating Committee series of meetings.

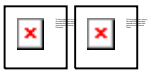
-

CALENDAR

Oct. 6-7	SWB Meeting
Oct. 12-15	SCCWRP CEC's Panel

Oct. 15	CASA RWG
Oct. 15	SWB Integrated Report Data Due
Oct. 19	SCCWRP Microplastics Webinar (1 of 5)
Oct. 19	US EPA Comment Deadline re: FCA
Oct. 19-22	CWEA's Annual Conference
Oct. 20-21	SWB Meetings
Oct. 22	CASA ACE Meeting
Oct. 26	Clean Water Summit Partners PFAS Workshop Pt. II
Oct. 30	SWB Release of Final Draft of Toxicity Provisions and Supporting Materials

Oct. 30	WRF Industrial Contaminants Survey Deadline
Nov. 4	SWB Meeting
Nov. 30	US EPA Comment Deadline re: Financial Assistance Regulations



Visit our website