Executive Board Meeting
AGENDA
Friday, August 19, 2022 9:00 AM - 12:30 PM (PDT)

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

Agenda Item		Time	Pages
ROLL CALL, INTRODUCTIONS, AND TELECONFERENCE ETIQUETTE		**9:00 AM**	
PUBLIC COMMENT	Guidelines	**9:05 AM**	
CONSIDERATION TO TAKE AGENDA ITEMS OUT OF ORDER			
CONSENT CALENDAR		**9:15 AM**	
1 Resolution to continue teleconferencing Executive Board meetings (AB361)			**3-4**
2 July 19, 2022 BACWA Executive Board meeting minutes			**5-10**
3 July 26, 2022 Special Board Meeting/NST minutes			**11-12**
4 July 28, 2022 Joint BACWA/R2 Special Board meeting (WSP Workshop)			**13-17**
5 June 2022 Treasurer's Report			**18-26**
APPROVALS AND AUTHORIZATIONS		**9:25 AM**	
6 Approval: FY23 NMS Payment #1, $1M			**27-28**
7 Approval: Updated Representative Policy			**29-30**
POLICY/STRATEGIC		**9:30 AM**	
8 Discussion: Nutrients			
a. Technical Work			
i. Heterosigma akashiwo bloom in SF Bay	Time series images		
b. Regulatory			
i. Early actors and organics draft memo 08-01-22			**31-44**
ii. Follow up from Watershed Permit Workshop			**45-50**
c. Governance			
i. Planning Subcommittee meeting #68 notes - Aug 3, 2022			**51-54**
d. Fundraising			
i. BACWA Support for SFEI WQIF proposal	EPA WQIF page		
ii. BACWA Support for SFEI SFEP proposal			
9 Presentation: 2022 RMP Update			
BREAK			
10 Discussion: Debrief from 7/18 BAAQMD/BACWA Reg 2 Workgroup Meeting			**55-57**
11 Discussion: Draft agenda for September Technical Seminar			**58-59**
12 Discussion: Recycled water update			**60-79**
13 Informational: Understanding your NPDES Permit	Understanding your NPDES Permit presentation		
14 Informational: Sea Level Rise round table August 23			**80**
OPERATIONAL		**11:10 AM**	
15 Discussion: FY22 Close Review - 5 year plan assumptions			
16 Discussion: BACWA Representative roles			**81-82**
17 Informational: BACC Update - Annual meeting agenda			**83**
18 Informational: Bruce Wolfe Scholarship awardee update			
REPORTS		**12:20 PM**	
19 Committee Reports			**84-87**
20 Member highlights			
21 Executive Director Report			**88-89**
22 Board Calendar and Action Items			**90-91**
23 Regulatory Program Manager Report			**92**
24 Other BACWA Representative Reports			**93-105**
a. RMP Technical Committee	Mary Lou Esparza, Yuyun Shang, Samantha Engelage		
b. RMP Steering Committee	Karin North; Amanda Roa; Eric Dunlavey		
c. Summit Partners	Lorien Fono; Amit Mutsuddy		

d. ASC/SFEI	Lorien Fono; 2 **Board members needed**		
e. Nutrient Governance Steering Committee	Eric Dunlavey, **1 member needed**; alternates: Lori Schectel, Jackie Zipkin		
e.i Nutrient Planning Subgroup	Eric Dunlavey		
f. SWRCB Nutrient SAG	Lorien Fono		
h. BAIRWMP	Cheryl Munoz; Florence Wedington; Lorien Fono		
i. NACWA Emerging Contaminants	Karin North; Melody LaBella		
j. CASA State Legislative Committee	Lori Schectel		
k. CASA Regulatory Workgroup	Lorien Fono; Mary Cousins		
l. RMP Microplastics Liaison	Artem Dyachenko		
m. Bay Area Regional Reliability Project	**1 rep needed**		
n. WateReuse Working Group	Cheryl Munoz		
o. San Francisco Estuary Partnership	Lorien Fono; **1 alternate needed**		
p. CPSC Policy Education Advisory Committee	Colleen Henry		
q. California Ocean Protection Council	Lorien Fono		
r. Countywide Water Reuse Master Plan	Karin North, Pedro Hernandez		
s. CHARG - Coastal Hazards Adaptation Resiliency Group	Jackie Zipkin		
t. California Water Quality Monitoring Council	Lorien Fono		
25 **SUGGESTIONS FOR FUTURE AGENDA ITEMS**		**12:29 PM**	
NEXT MEETING			
The next meeting of the Board is scheduled for October 21, 2022			
ADJOURNMENT		**12:30 PM**	

BAY AREA CLEAN WATER AGENCIES
RESOLUTION NO. R-23-02

RESOLUTION AUTHORIZING REMOTE TELECONFERENCE MEETINGS PURSUANT TO AB 361

WHEREAS, all Bay Area Clean Water Agencies (BACWA) meetings are open and public, as required by the Ralph M. Brown Act (Cal. Gov. Code 54950 – 54963), so that any member of the public may attend, participate, and watch BACWA's legislative bodies conduct their business; and

WHEREAS, on March 4, 2020, Governor Newsom declared a State of Emergency to make additional resources available, formalize emergency actions already underway across multiple state agencies and departments, and help the State prepare for an anticipated broader spread of the novel coronavirus disease 2019 ("COVID-19"); and

WHEREAS, On March 17, 2020, in response to the COVID-19 pandemic, Governor Newsom issued Executive Order N-29-20 suspending certain provisions of the Ralph M. Brown Act in order to allow local legislative bodies to conduct meetings telephonically or by other means; and

WHEREAS, as a result of Executive Order N-29-20, staff set up virtual meetings for all BACWA Executive Board meetings; and

WHEREAS, on June 11, 2021, Governor Newsom issued Executive Order N-08-21, which, effective September 30, 2021, repealed the provisions of Executive Order N29-20 that allowed local legislative bodies to conduct meetings telephonically or by other means; and

WHEREAS, on September 16, 2021, Governor Newsom signed AB 361 (2021), which allows for local legislative bodies and advisory bodies to continue to conduct meetings via teleconferencing under specified conditions and includes a requirement that the BACWA Executive Board make specified findings. AB 361 (2021) took effect immediately; and

WHEREAS, in order for legislative bodies to continue to conduct meetings via teleconferencing pursuant to AB 361 (2021), a proclaimed State of Emergency must exist; and

WHEREAS, AB 361 (2021) further requires that State or local officials have imposed or recommended measures to promote social distancing, or, requires that the legislative body determines that meeting in person would present imminent risks to the health and safety of attendees; and

WHEREAS, such conditions now exist in BACWA's jurisdiction, specifically, Governor Newsom has declared a State of Emergency due to COVID-19; and

WHEREAS, the Centers for Disease Control and Prevention ("CDC") continues to recommend physical distancing of at least 6 feet from others outside the household; and

WHEREAS, local county health jurisdictions continue to recommend physical and social distancing as a COVID-19 mitigation strategy and

WHEREAS, because of the prevalence of highly contagious variants of COVID-19, the BACWA Executive Board is concerned about the health and safety of all individuals who intend to attend BACWA Executive Board and Committee meetings; and

WHEREAS, the BACWA Executive Board desires to provide a way for Executive Boarders, staff, and members of the public to participate in meetings remotely, without having to attend meetings in person; and

WHEREAS, the BACWA Executive Board hereby finds that the presence of COVID-19 and the prevalence of cases due to the Omicron variant would present imminent risks to the health or safety of attendees, including the legislative bodies and staff, should BACWA's legislative bodies hold in person meetings; and

WHEREAS, BACWA shall ensure that its meetings comply with the provisions required by AB 361 (2021) for holding teleconferenced meetings.

BAY AREA CLEAN WATER AGENCIES
RESOLUTION NO. R-23-02

NOW, THEREFORE, BE IT RESOLVED that the Executive Board of the Bay Area Clean Water Agencies hereby declares as follows:

1. The above recitals are true and correct, and incorporated into this Resolution.
2. In compliance with AB 361 (2021), and in order to continue to conduct teleconference meetings without complying with the usual teleconference meeting requirements of the Brown Act, the BACWA Executive Board makes the following findings:
    a. The BACWA Executive Board has considered the circumstances of the State of Emergency; and
    b. The State of Emergency, as declared by the Governor, continues to directly impact the ability of the BACWA Executive Board and BACWA's legislative bodies, as well as staff and members of the public, from meeting safely in person; and
    c. The CDC continues to recommend physical distancing of at least six feet due to COVID-19 and as a result of the presence of highly contagious variants of COVID-19, meeting in person would present imminent risks to the health or safety of attendees, the legislative bodies and staff.
3. The BACWA Executive Board may continue to meet remotely in compliance with AB 361, in order to better ensure the health and safety of the public.
4. The BACWA Executive Board will revisit the need to conduct meetings remotely within thirty (30) days of the adoption of this resolution.

PASSED AND ADOPTED THIS 19th DAY OF AUGUST, 2022.

Amit Mutsuddy
Chair of the Bay Area Clean Water Agencies Executive Board

ATTEST:

Lorien J. Fono
Executive Director, Bay Area Clean Water Agencies

ROLL CALL AND INTRODUCTIONS

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

Other Attendees and Guests:

Name	Agency/Company
Amanda Roa	Delta Diablo
Andrew Damron	Napa Sanitation District
David Donovan	City of Hayward
Don Gray	EBMUD
Elisa Lee	Woodard & Curran
Jean-Marc Petit	CCCSD
Jeff Carson	DSRSD
Jennie Pang	SFPUC
Jennifer Dyment	BACWA
Karin North	City of Palo Alto
Lorien Fono	BACWA
Mary Cousins	BACWA
Mary Lou Esparza	CCCSD
Meg Herston	FSSD
Michael Connor	Consultant
Sarah Deslauriers	Carollo Engineers
Stefanie Olson	DSRSD
Robert Wilson	City of Santa Rosa
Tom Hall	EOA

Jackie started meeting at 9:02

ROLL CALL, INTRODUCTIONS, AND TELECONFERENCE ETIQUETTE

PUBLIC COMMENT None

CONSIDERATION TO TAKE AGENDA ITEMS OUT OF ORDER None

CONSENT CALENDAR

1 **BACWA Board members, introductions, and succession** - BACWA Executive Director shared updates with attendees. Alicia Chakrabarti, EBMUD's BACWA Board alternate, is standing in until a new EBMUD director is selected. Mary Lou Esparza, CCCSD, is replacing Jean-Marc Petit as CCCSD's Alternate Board Member. David Donavan, City of Hayward, has replaced Jason Warner as EBDA's Alternate Board Member.

CONSENT CALENDAR

2 Resolution to continue teleconferencing Executive Board meetings (AB361)

3 June 17, 2022 BACWA Executive Board meeting minutes

4 June 30, 2022 Special Board Meeting/NST minutes

5 May 2022 Treasurer's Report

Consent Calendar Items 2 thru 5: A motion to approve was made by Lori Schectel (Central Contra Costa Sanitary District) and seconded by Amy Chastain (San Francisco Public Utilities Commission). The motion was approved unanimously.

APPROVALS AND AUTHORIZATIONS

6 Approval: Recycled Water Site Training video editing

Item 6: A motion to approve was made by Amy Chastain (San Francisco Public Utilities Commission) and seconded by Lori Schectel (Central Contra Costa Sanitary District). The motion was approved unanimously.

POLICY/STRATEGIC

7 Discussion: Nutrients

a. Technical Work

i. BACWA Comments on Draft Virginia Province Approach for LSB - Michael Connor, Consultant, shared an overview of the of the comment letter. Group discussion followed, focusing on the challenges of implementing dissolved oxygen thresholds in a way that accounts for temporal and spatial variability. There is an August 17, 2022, Assessment Framework Expert Advisory Group meeting which is the next milestone for the project. BACWA Staff and several members plan to attend.

b. Regulatory

i. Recycled Water Evaluation and NBS Study Progress updates to Board - BACWA Executive Director shared that annual update required by the Watershed Permit are in the packet.

ii. Agenda for 7/26 NST meeting - BACWA Executive Director walked through proposed agenda, including points of agreement already established between BACWA & Water Board, as well as additional permit-related topics to be discussed at the meeting. Attendees reviewed slides and discussed topics further.

Action Item*: BACWA Executive Director to make updates suggested by attendees and to update graphs with agency submitted information.*

c. Fundraising

i. Release of WQIF RFA - At the time of the meeting, the RFA for the San Francisco Bay Water Quality Improvement Fund had yet to be released *(Editorial note: As of Monday 7/18, the RFA is now open; applications are due 9/20)*. SFEI is taking the lead on a proposal to support sediment transport and nutrient modeling, which could be used to augment BACWA's funding of nutrient research projects. Separately, several BACWA member agencies are working with SFEP on a proposal for NbS project implementation.

BREAK 10:40-10:50

8 Discussion: Agenda for 7/18 BAAQMD workgroup meeting - Sarah Deslauriers, Carollo, shared the agenda with the attendees and summarized the agenda topics. Group discussion followed. The agenda will be revised to include a standing item regarding the status of routine permitting at BAAQMD. The group also agreed to bring concerns about routine permitting delays to the BAAQMD Board.

9 Discussion: Scope for enhanced ACE engagement - Sarah Deslauriers, Carollo, shared that funding came through from southern CA for enhanced engagement and she provided a report on what she has been working on. Sarah summarized biogas and air toxics efforts. BACWA representation is needed to testify at upcoming CARB meetings.

10 Discussion: Key topics for discussion at Pardee technical seminar - BACWA Executive Director brought up current COVID restrictions at Pardee and asked group if they wanted to hold the technical seminar locally. Group agreed that a local meeting would be better. Group reviewed the proposed agenda topics.

Action Item: *BACWA Executive Director to update agenda and location and report back at August meeting.*

11 Informational: BAOWN update - NBS report and conservation workshop - BACWA Executive Director shared that information is available as a link in the packet and summarized the key takeaways in the report.

Action item: *BACWA Executive Director to inquire about involvement of UC Berkeley School of Public Policy in BAOWN and get back to group.*

12 Discussion: Sea Level Rise round table August 23 - BACWA Regulatory Program Manager shared that members have formed a committee to plan the roundtable. The group plans to hold a roundtable discussion on planning for sea level rise & flooding. The RWB adopted a climate change basin plan amendment on July 13, 2022, and RPM summarized this amendment. General group discussion followed.

OPERATIONAL

13 Discussion: Draft BACWA representatives policy update - BACWA Executive Director shared policy update on BACWA representation, requiring review of representative roles every two years. Jackie Zipkin, EBDA, also added background information. Group provided some feedback and suggestions to process.

Action item: *BACWA Executive Director will update document based on feedback, circulate amongst members and bring it for approval at the August meeting.*

14 Discussion: Representative and Committee Leadership Succession planning - BACWA Executive Director encouraged members to share which representative roles they would be interested in filling. She also shared discontinued efforts and committees where new representation is needed. Group discussed and felt reviewing for the next couple months would be best.

Action item: *BACWA staff to create a matrix to summarize roles, responsibilities, meeting schedule & etc. BACWA staff will check in with current representatives and their level of interest, as well as an update list of representatives.*

15 Informational: BACC Update - BACWA Executive Director shared that annual BACC member meeting will be Monday August 22, 2022. We will prepare an agenda, but we plan to review the most recent BID cycle – review the process, get feedback on what worked, ways to improve and how the group wants to deal with vendors that did not honor their bid prices.

16 Informational: update FY23 Meeting Schedule and location - BACWA Executive Director shared that we have reserved the David Brower Center for Friday May 5, 2023. We have reserved the entire building, like this year, but there is an option to hold the meeting in the upstairs area.

17 Discussion: FY23 NMS payment schedule - BACWA Executive Director summarized the NMS payment schedule for FY23. She proposed that we pay the first payment of $1 million in August and the second payment of $800,000 will be paid in December 2022.

Action Item: *BACWA staff to prepare BAR for the first payment to be approved at the August 2022 Executive Board Meeting.*

REPORTS

18 Committee Reports - BACWA Regulatory Program Committee summarized Permits, Lab and BAPPG committee reports. She shared that Dr. Teng-Chung Wu award nominations are due today.

19 Member highlights - EBDA shared a recent treatment plant tour was well received. SFPUC capital improvements are ongoing and dealing with cost overruns. CCCSD shared Jean-Marc Petit is retiring, and his position is open if anyone is interested. City of San Jose shared that there was a huge fire at Home Depot in April, and they were recently asked to receive a batch discharge of the fire suppression water. No fire suppression chemicals were used but there will be PFAS in that water from the Home Depot products. City of San Jose to collect samples to measure PFAS levels. EBMUD shared they are dealing with interceptor failures, and they are working to resolve those.

20 Executive Director Report - in the packet

21 Board Calendar and Action Items - in the packet

22 Regulatory Program Manager Report - in the packet

23 Other BACWA Representative Reports

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

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

c. Summit Partners Lorien Fono; Amit Mutsuddy

d. ASC/SFEI Lorien Fono; Eileen White

e. Nutrient Governance Steering Committee Eric Dunlavey; Lori Schectel

e.i Nutrient Planning Subgroup Eric Dunlavey

e.ii NMS Technical Workgroup Eric Dunlavey

f. SWRCB Nutrient SAG Lorien Fono

g. NACWA Taskforce on Dental Amalgam Tim Potter

h. BAIRWMP Cheryl Munoz; Florence Wedington

i. NACWA Emerging Contaminants Karin North; Melody LaBella

j. CASA State Legislative Committee Lori Schectel

k. CASA Regulatory Workgroup Lorien Fono; Mary Cousins

l. RMP Microplastics Liaison Artem Dyachenko

m. Bay Area Regional Reliability Project Eileen White

n. WateReuse Working Group Cheryl Munoz

o. San Francisco Estuary Partnership Eileen White; Lorien Fono

p. CPSC Policy Education Advisory Committee Colleen Henry

q. California Ocean Protection Council Lorien Fono

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

s. CHARG - Coastal Hazards Adaptation Resiliency Group Jackie Zipkin

t. California Water Quality Monitoring Council Lorien Fono

26 SUGGESTIONS FOR FUTURE AGENDA ITEMS

NEXT MEETING: The next meeting of the Board is scheduled for August 19, 2022

ADJOURNMENT 12:30pm

Nutrient Strategy Team
July 26, 2022 Meeting Summary

ATTENDEES:

Executive Board Representatives: Lori Schectel (Central Contra Costa Sanitary District); Amit Mutsuddy (San José); Jacqueline Zipkin (East Bay Dischargers Authority); Amy Chastain (San Francisco Public Utilities Commission)

Other Attendees:

Name	Agency/Company
Lorien Fono, Mary Cousins	BACWA
Amanda Cauble, Blake Brown, Dan Frost, Mary Lou Esparza	CCCSD
Amanda Roa	Delta Diablo
Don Gray	EBMUD
Tom Hall	EOA
Jordan Damerel, Talyon Sortor	FSSD
David Donovan	Hayward
Mike Falk, May Raad	HDR
Liz Falejczyk	Novato
Samantha Engelage	Palo Alto
Jennie Pang, Brian Henderson	SFPUC
Eric Dunlavey	San José
Azalea Mitch	San Mateo
Monte Hamamoto	SVCW
Melody Tovar, and Rohan Wikramanayake	Sunnyvale
Tim Grillo	USD
Jennifer Harrington	Vallejo

Amit Mutsuddy called the meeting to order at 10:04 am, and led introductions.

The purpose of the meeting was to prepare for an upcoming workshop with Regional Water Board staff, which will occur on Thursday July 28th in hybrid format (Zoom, and in-person at EBMUD's Orinda Watershed Center).

The BACWA Executive Director (ED) shared draft slides to be used at Thursday's workshop. The ED first shared a slide describing current points of agreement with the Regional Water Board (e.g., Establish load caps based on antidegradation; load cap implemented Baywide, etc.). Members provided feedback on how to describe these points of agreement. If the workshop results in additional points of agreement, they would be added to this list.

The ED next shared TIN load projections for the region based on current loading, ABAG growth

projections, reductions due to recycled water diversions, increases due to organics digestion, and reductions due to "early actions." These projections were also described in a draft memo circulated to NST representatives on July 25th. The ED requested that agencies provide updated project descriptions for organics or nutrient removal projects as soon as possible, as this memo will be finalized and circulated to Regional Water Board staff before the Thursday workshop. Several members agreed to share their agency's long-range plans for nutrient removal projects at Thursday's workshop to provide context for the long-term projections (i.e., the projections past 2030).

Representatives from HDR also shared their draft slides for the Thursday workshop, which will be part of the overall presentation. Mike Falk will show slides describing how variability leads to exceedances of the Planning Level Targets from the 2nd Watershed Permit, especially for smaller agencies. May Raad will show slides describing the proposed use of the Upper Tolerance Limit (UTLs), which could be used in lieu of current Planning Level Targets.

Members discussed implementation considerations for a Baywide load cap and individual load triggers. Members agreed that the Baywide cap should not be based on a sum of individual agency UTLs, because that approach is not statistically valid. A proposal for determining compliance using a multi-year average will be included in the discussion at Thursday's workshop. Members also agreed to share details at Thursday's workshop about the long planning horizons needed for implementation of nutrient removal projects.

NEXT STEPS

Ahead of Thursday's workshop, BACWA will:

- Update the draft memo describing TIN projections to incorporate updated project descriptions provided by NST members, then circulate the draft memo to Regional Water Board staff.

- Provide an updated slide deck to NST representatives ahead of the workshop, including updates to HDR's slides.

- Provide meeting details to NST representatives (i.e., Zoom link and directions)

Special Executive Board Meeting Minutes
Joint Meeting with Regional Water Board Staff

July 28, 2022

ROLL CALL AND INTRODUCTIONS

Executive Board Representatives: Lori Schectel (Central Contra Costa Sanitary District); Amit Mutsuddy (San Jose); Jacqueline Zipkin (East Bay Dischargers Authority); Amy Chastain (SFPUC).

Other Attendees:

Name	Agency/Company
Lorien Fono	BACWA
Mary Cousins	BACWA
Tom Mumley	Regional Water Board
Bill Johnson	Regional Water Board
Robert Schlipf	Regional Water Board
James Parrish	Regional Water Board
Amanda Cauble	Central San
Blake Brown	Central San
Dan Frost	Central San
Amanda Roa	Delta Diablo
Don Gray	EBMUD
Tom Hall	EOA
Jordan Damerel	Fairfield-Suisun Sewer District
Talyon Sortor	Fairfield-Suisun Sewer District
May Raad	HDR
Mike Falk	HDR
Liz Falejczyk	Novato Sanitary District
Diego Martinez Garcia	Palo Alto
Samantha Engelage	Palo Alto
Eric Dunlavey	San Jose
Azalea Mitch	San Mateo
Jennie Pang	SFPUC
Nohemy Revilla	SFPUC
Monte Hamamoto	Silicon Valley Clean Water
Cameron Kostigen Mumper	Sunnyvale
Ramana Chinnakotla	Sunnyvale
Rohan Wikramanayake	Sunnyvale
Armando Lopez	Union SD
Paul Eldredge	Union SD
Tim Grillo	Union SD
Jennifer Harrington	Vallejo Flood & Wastewater District

Amit Mutsuddy began the meeting at 1:32 pm.

AGENDA ITEMS

Agenda **Item 1 – Introduction and Public Comment**

Amit Mutsuddy led the attendees through introductions, including those attending the hybrid meeting in-person and those attending virtually. There was no public comment.

Agenda **Item 2 – Points of Agreement between BACWA and Water Board**

The BACWA Executive Director (ED) provided background information about the status of negotiations for the 3rd Nutrient Watershed Permit, which is slated to be reissued in 2024. The BACWA ED shared a list of points of agreement, and solicited the group for edits. The group added one point of agreement, which is that overall approach of implementing load caps based on antidegradation would be revised if there is a scientific finding of nutrient impairment for the Bay. Regional Water Board (RB2) staff noted that their goal for the 3rd Watershed Permit is to balance the ability to enforce, load variability, and compliance feasibility (a "buffer") for both individuals and for the group. RB2 staff envision that individual load caps will be listed in the front section of the Permit, but they will not be enforceable unless a Baywide cap is exceeded. The "Points of Agreement" slide edited during the meeting is shown below.

Agenda **Item 3 – Review of known factors impacting TIN loads (growth, RW, upgrades, etc.)**

The BACWA ED shared slides describing a new estimate of future TIN loading to the Bay that accounts for growth, recycled water diversions, early actors, solids handling, and organics diversion. This information was previously shared with the group in memo format. Attendees including Central San, FSSD, San Jose, Delta Diablo, SVCW, and SFPUC shared specific information about planned projects that were considered in developing the load projections, including the construction windows that are needed for changes to treatment processes. Attendees discussed the need to present cost information for recycled water and nature-based solutions using a metric that is "not too complicated," but that accounts for the multiple benefits of such projects.

Agenda **Item 4 – Data Variability and Statistical Methods of Developing Caps**

Mike Falk (HDR) providing information about observed TIN loading variability over the past nine years, and reminded attendees how planning level targets were developed in the 2019 (2nd) Watershed permit. On a Baywide level, dischargers have not exceeded the sum of Planning Level Targets, although individual dischargers have exceeded their individual planning level targets.

Agenda **Item 5 – Proposal – Upper Tolerance Limit to Establish Baseline**
May Raad (HDR) proposed use of the Upper Tolerance Limit (UTL) to establish baseline conditions in the 3rd Watershed permit. She confirmed that TIN loading data follows a lognormal distribution. RB2 staff requested a justification for the proposal to use 99% coverage instead of 95% coverage; HDR and the BACWA ED explained that this assumption is justified because it will reduce the likelihood of triggering capital projects due to random loading variability while there is no finding of impairment for the Bay. From this viewpoint, it is appropriate to use a different statistical approach than the approach used to develop effluent limits based on water quality objectives.

Agenda **Item 6 – Baywide Load Caps and Individual Allocations**
The BACWA ED shared the results of calculations using the proposed approach (i.e., a UTL with 99% coverage and a 95% confidence interval). RB2 staff were supportive of the concept of a Baywide cap that is smaller than the individual load caps, and smaller than the sum of planning level targets from the 2nd Watershed Permit. RB2 staff expressed a desire to look more closely at the effects of using a longer time frame (2013-2021 instead of 2014-2017). RB2 staff were also keen to examine the proposed method in-house and determine an appropriate confidence interval (95% or 99%) and coverage level (95% or 99%) for the UTL, and to pair this assumption with an appropriate averaging time frame for load calculations when assessing compliance. RB2 staff noted that the 99% confidence interval may not be appropriate for use with a three-year rolling average.

Agenda **Item 7 – Accommodation of Growth for Long-term Planning**
RB2 staff did not support use of a growth buffer on top of the individual UTLs, and explained that it is possible to allow extended time frames for project implementation without using growth buffers. The use of growth buffers is also not consistent with the antidegradation approach

Agenda **Item 8 – Consequences for Exceedance of Load Caps (enforcement, triggers, etc.)**
Attendees discussed possible actions following exceedance of individual and/or Baywide load caps. It was noted that the Mercury and PCBs Watershed Permit also contains a similar structure, with actions by individual agencies required if there is an exceedance of an individual load cap. Attendees agreed that if the Baywide load cap is exceeded, individual agencies that have <u>not</u> exceeded their individual load caps should <u>not</u> be required to take action. There was also agreement that individual agencies that have exceeded their individual caps but are already planning nutrient removal projects should not be considered in violation of the permit if there is a commitment to action and projects are being implemented to reach compliance. RB2 staff also noted that the term of the 3rd watershed permit is five years, so adjustments to the enforcement approach could be made in the 4th watershed permit (if needed). Attendees agreed that if the Baywide cap is not exceeded, individual load cap exceedances would not be a violation, but

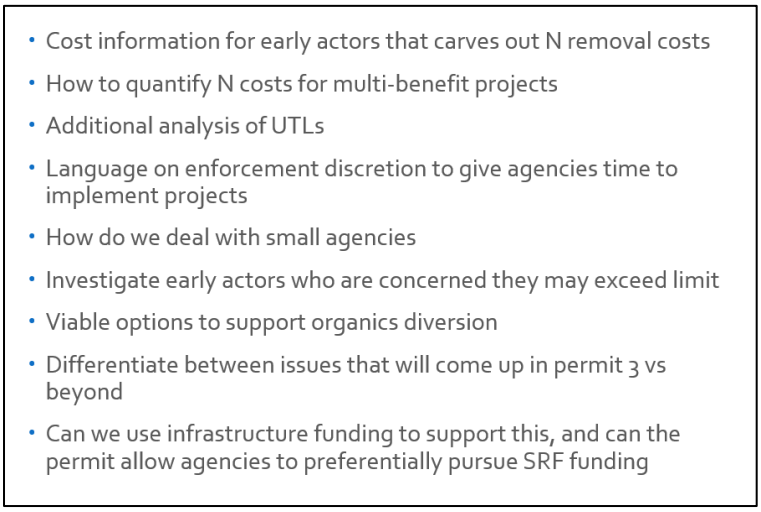
should be followed by a discussion with RB2 staff about long-term loading trends and agency plans. The matrix of potential actions (as edited during the meeting) is shown below.

	Individual limit exceeded	Individual limit NOT exceeded	Some agencies exceed limit
Bay cap exceeded	Action required, with enforcement discretion: • Avoid determination of non-compliance for agencies with planning efforts • Penalty for agencies with no planning	unlikely • Investment in science by non-early actors	• Enforcement on agencies who exceed limits • no action required of agencies that don't exceed limit
Bay cap NOT exceeded	• No violation • Action required on planning/implementation/remedy • Future permit would consider • Development of trading program	Continue existing planning/implementation	

Agenda **Item 9 – Compliance Calculations**
RB2 staff noted that the 99% confidence interval may not be appropriate for use with a three-year rolling average. The averaging window should be suitable for use with the selected confidence interval and coverage.

Agenda **Item 10 – How to Incentivize Projects**
Attendees agreed that nature-based projects should receive a fixed nutrient removal credit, and also discussed the merits of using fixed nutrient removal credits for recycled water projects.

Agenda **Item 11 – Outstanding Issues and Information Gaps**
The BACWA ED shared a list of outstanding issues and information gaps. Based on the meeting discussion, BACWA plans to reach out to "early actors" to determine which, if any, are projected to exceed the proposed UTL-based load caps during the 5-year term of the 3rd Watershed Permit. This information is needed to understand proper incentives for "early actors." BACWA also plans to share the UTL analysis with RB2 staff for their consideration. RB2 staff suggested adding to the list a consideration of concepts to be included in the 4th Watershed Permit. The list (as edited during the meeting) is shown below.



Agenda **Item 12 – Action Items and Next Steps**
BACWA plans to continue developing information as described under Item 11, above, and will bring items back to RB2 staff at the next hybrid meeting planned for September 9, 2022.

The meeting was adjourned at 5:20 PM.

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

July 29, 2022

MEMO TO: Bay Area Clean Water Agencies Executive Board

MEMO FROM: Samuel Feldman-Crough, Treasurer, East Bay Municipal Utility District

SUBJECT: Twelfth Month FY 2022 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, 2021 through June 30, 2022** (Twelve months of Fiscal Year 2022). 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),

Houck, Matt

From: Feldman, Samuel
Sent: Friday, August 5, 2022 8:21 AM
To: Houck, Matt
Subject: RE: June 2022 Treasurer's Report

Approved. Thank you!

Sam Feldman (he/him/his)
Manager of Budget
office: (510) 287-0441
mobile: (510) 882-6860

From: Houck, Matt <matt.houck@ebmud.com>
Sent: Wednesday, August 3, 2022 10:14 AM
To: Feldman, Samuel <samuel.feldman@ebmud.com>
Subject: June 2022 Treasurer's Report

Hi Samuel,

Please approve BACWA – June 2022 Treasurer's Report for distribution.

Thanks,

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

Fund Balances
In FY22 BACWA has three operating funds (BACWA, Legal, and CBC) and three pass-through funds for which BACWA provides only contract administration services (WOT, BABC & BACC). As of October 31st, 2021, revenues are recognized when billed, not when payments are received.

BACWA Fund: This fund provides the resources for BACWA staff, its committees, and other administrative needs. The ending fund balance on June 30, 2022, was $376,500 which is higher than the target reserve of $201,612 which is intended to cover 3 months of normal operating expenses based on the BACWA FY22 budget. $56,972 of the ending fund balance is shown on the BACWA Fund & Investments Balance Report June 31, 2022, as encumbered to meet ongoing operating line-item expenses for BAPPG Committee Support, Legal services, IT services, Board meeting expenses, accounting services and BACWA staff support. This leaves actual unencumbered reserves of $117,916 (i.e., actual fund balance of $319,528 less target reserves) as June 30, 2022.

CBC Fund: This fund provides the resources for completing special investigations as well as meeting regulatory requirements. The ending fund balance on June 30, 2022, was $2,114,741 which is higher than the target reserve of $1,000,000. $568,510 of the ending fund balance is encumbered to meet line-item expenses for completion of the Group Annual Report contract, completion of the NBS Study, Recycled Water Evaluation, and the PFAS Regional Study. This leaves an actual unencumbered reserve balance of $546,231 (i.e., actual fund balance of $1,546,231 less target reserves) as of June 31, 2022. As directed by the BACWA Executive Board, the CBC fund has diminished over time due to BACWA's ongoing funding of the NMS program to comply with the Nutrient Watershed Permit.

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

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

Revenues as of June 30, 2022 (100% of the FY) are at 99%

Expenses as of June 30, 2022 (100% of the FY) are at 75%.

FY 2022
BACWA BUDGET to ACTUAL

BACWA BAY AREA CLEAN WATER AGENCIES

BACWA FY22 BUDGET	*Line Item Description*	FY 2022 Budget	Actual June 2022	Actual % of Budget June 2022	Variance	YEAR END NOTES
REVENUES & FUNDING						
Dues	Principals' Contributions	$516,909	$516,910	100%	$1	
	Associate & Affiliate Contributions	$187,793	$183,175	98%	-$4,618	City of Livermore and Treasure Island membership level changed mid year
Fees	Clean Bay Collaborative	$675,000	$675,000	100%	$0	
	Nutrient Surcharge	$1,700,000	$1,699,999	100%	-$1	
	Voluntary Nutrient Contributions	$0	$0	0%	$0	
Other Receipts	AIR Non-Member	$7,075	$7,074	100%	-$1	
	BAPPG Non-Members	$3,954	$3,954	100%	$0	
	Other	$0	$3,601		$3,601	BAWSCA membership and Scottish Rite Refund
Fund Transfer	Special Program Admin Fees (WOT)	$5,202	$2,601	50%	-$2,601	BACWWE scholarship disbursement was limited this FY, so we billed less
	Special Program Admin Fees (BACC)	$27,200	$27,200	100%	$0	
	Special Program Admin Fees (BABC)	$6,000	$4,843	81%	-$1,157	Billing BABC is based on hours spent, less than anticipated in FY22
Interest Income	LAIF	$20,000	$6,312	32%	-$13,688	LAIF yields lower than anticipated
	Higher Yield Investments					
	Total Revenue	**$3,149,133**	**$3,130,668**	**99.41%**	**-$18,465**	

BACWA FY22 BUDGET	*Line Item Description*	FY 2022 Budget	Actual June 2022	Actual % of Budget June 2022	Variance	YEAR END NOTES
EXPENSES						
Labor						
	Executive Director	$190,000	$189,999	100%	$0	
	Assistant Executive Director	$108,800	$81,600	75%	-$27,200	The balance of contract was paid by BACC coordinator duties
	Regulatory Program Manager	$127,400	$109,008	86%	-$18,392	Reflects a $12K credit due to double booking in FY21
	Total	**$426,200**	**$380,607**	**89%**	**-$45,593**	
Administration						
	EBMUD Financial Services	$42,448	$32,534	77%	-$9,914	
	Auditing Services	$5,345	$5,345	100%	$0	
	Administrative Expenses	$7,959	$134	2%	-$7,825	
	Insurance	$5,071	$7,072	139%	$2,001	Reflects actual cost of insurance in FY22
	Total	**$60,823**	**$45,084**	**74%**	**-$15,739**	
Meetings						
	EB Meetings	$2,653	$335	13%	-$2,319	No inperson meetings
	Annual Meeting	$14,369	$10,918	76%	-$3,451	Annual meeting venue was less expensive
	Pardee	$6,537	$648	10%	-$5,889	Pardee meeting venue was local and there was no cost to rent.
	Misc. Meetings	$5,306	$1,386	26%	-$3,920	Less in person meetings
	Total	**$28,865**	**$13,286**	**46%**	**-$15,579**	
Communication						
	Website Hosting	$700	$220	31%	-$480	Switched domain hosting to less expensive service.
	File Storage	$765	$720	94%	-$45	
	Website Development/Maintenance	$1,530	$770	50%	-$760	Minimal development /maintenance needed

FY 2022
BACWA BUDGET to ACTUAL

EXPENSES						
	IT Support	$2,652	$0	0%	-$2,652	No IT support needed
	Other Commun	$1,785	$928	52%	-$857	
	Total	**$7,432**	**$2,638**	**35%**	**-$4,794**	
Legal						
	Regulatory Support	$2,815	$0	0%	-$2,815	None needed in FY22
	Executive Board Support	$2,264	$120	5%	-$2,144	
	Total	**$5,079**	**$120**	**2%**	**-$4,959**	
Committees						
	AIR	$76,000	$76,000	100%	$0	
	BAPPG	$130,000	$125,763	97%	-$4,237	
	Biosolids Committee	$0	$0		$0	
	Collections System	$1,000	$0	0%	-$1,000	
	InfoShare Groups	$1,750	$0	0%	-$1,750	
	Laboratory Committee	$1,000	$1,000	100%	$0	
	Permits Committee	$1,300	$20	2%	-$1,280	
	Pretreatment	$1,000	$0	0%	-$1,000	
	Recycled Water Committee	$1,000	$0	0%	-$1,000	
	Misc Committee Support	$45,000	$13,952	31%	-$31,048	Includes $10K for AIR Committee Support
	Manager's Roundtable	$1,000	$0	0%	-$1,000	
	Total	**$259,050**	**$216,735**	**84%**	**-$42,315**	
Collaboratives						
	Collaboratives					
	State of the Estuary (SFEP-biennial)	$0	$0	0%	$0	
	Arleen Navarret Award	$2,500	$0	0%	-$2,500	Award recipient selected late in FY22, recepient will spend funds in FY23
	BayCAN	$5,000	$1,500	30%	-$3,500	
	Stanford ERC (ReNUWIt)	$10,000	$0	0%	-$10,000	ReNUWit program ended
	Misc	$1,500	$9,000	600%	$7,500	Funding for Support for BA One Water Network & Bruce Wolf Scholarship
	Total	**$19,000**	**$10,500**	**55%**	**-$8,500**	
Other						
	Unbudgeted Items					
	Other	$0	$0	0%	$0	
		$0	**$0**	**0%**	**$0**	
Tech Support						
	Technical Support					
	Nutrients					
	Watershed	$2,600,000	$2,200,000	85%	-$400,000	
	NMS Voluntary Contributions	$0	$0	0%	$0	
	Additional work under permit	$100,000	$26,602	27%	-$73,398	Received $48K invoice in July 2022, will be reflected in FY23 expenses
	Regional Study on Nature based systems	$248,811	$41,091	17%	-$207,720	
	Regional Recycling Evaluation	$63,525	$43,198	68%	-$20,327	
	Nutrient Workshop(s)	$0	$0	0%	$0	
	NMS Reviewer	$50,000	$12,750	26%	-$37,250	
	General Tech Support	$100,000	$0	0%	-$100,000	No technical support needs.
	CEC Investigations	$140,000	$101,014	72%	-$38,986	
	Risk Reduction	$7,500	$12,500	167%	$5,000	
	Total	**$3,309,836**	**$2,437,154**	**74%**	**-$872,682**	
	TOTAL EXPENSES	**$4,116,285**	**$3,106,126**	**75.46%**	**-$1,010,159**	
	NET INCOME BEFORE TRANSFERS	**-$967,152**	**$24,542**			

FY 2022
BACWA BUDGET to ACTUAL

EXPENSES						
	TRANSFERS FROM RESERVES	**$967,152**	**-$24,542**			aligns with strategy of drawing down reserves to lessen impact of Nutrient Surcharge
	NET INCOME AFTER TRANSFERS	**$0**	**$0**			
	TOTAL OPERATING BUDGET	**$806,449**				
	OPERATING RESERVE	**$201,612**				

BACWA Fund Report as of June 30, 2022

BACWA FUND BALANCES - DATA PROVIDED BY ACCOUNTING DEPT.

DEPTID	DESCRIPTION	FISCAL YEAR BEGINNING FUND BALANCE	TOTAL BILLED REVENUE TO-DATE	TOTAL DISBURSEMENTS TO-DATE	MONTH-ENDING FUND BALANCE	OUTSTANDING ENCUMBRANCES	MONTH-END UNOBLIGATED FUND BALANCE
600	BACWA	1,320,542	724,930	1,668,972	376,500	56,972	319,528
604	LEGAL RSRV	300,000	-	-	300,000	-	300,000
605	CBC	1,172,157	3,379,738	2,437,154	2,114,741	568,510	1,546,231
	SUBTOTAL 1	*2,792,699*	*4,104,668*	*4,106,126*	*2,791,241*	*625,482*	*2,165,759*
602	BABC	*112,737*	175,400	111,877	176,260	*15,466*	160,794
606	BACC	*29,091*	*72,366*	*71,647*	29,810	-	29,810
607	BACC LEGAL RSRV	-	*30,000*	-	30,000	-	30,000
610	WOT	275,143	-	4,169	270,974	-	270,974
	SUBTOTAL 2	*416,971*	*277,766*	*187,693*	*507,044*	*15,466*	*491,578*
	GRAND TOTAL	**3,209,670**	**4,382,434**	**4,293,819**	**3,298,285**	**640,948**	**2,657,337**

*Begginning fund balance adjusted October 2021 due to change in reported accounting basis.

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

BACWA INVESTMENTS BALANCES - DATA PROVIDED BY TREASURY DEPT.

DEPTID	DESCRIPTION	FISCAL YEAR BEGINNING FUND BALANCE	TOTAL BILLED REVENUE TO-DATE	TOTAL DISBURSEMENTS TO-DATE	MONTH-ENDING FUND BALANCE	RECONCILIATION TO FINANCIAL STATEMENTS A/R	RECONCILIATION TO FINANCIAL STATEMENTS A/P	MONTH-END RECONCILED FUND BALANCE	UNINVESTED CASH BALANCES	LAIF INVESTMENTS AMOUNTS	LAIF INVESTMENTS PERCENTAGE	ALTERNATIVE INVESTMENTS AMOUNTS	ALTERNATIVE INVESTMENTS IDENTIFIERS	ALTERNATIVE INVESTMENT INSTRUCTIONS AND NOTES
800	BACWA	1,320,542	724,930	1,668,972	376,500	-	210,565	587,065	587,065	-	0%	-		priority # 3 for allocation
804	LEGAL RSRV	300,000	-	-	300,000	-	-	300,000	-	300,000	13%	-		priority # 1 for allocation
805	CBC	1,172,157	3,379,738	2,437,154	2,114,741	-	-	2,114,741	152,141	1,962,600	87%	-		priority # 2 for allocation
	SUBTOTAL 1	2,792,699	4,104,668	4,106,126	2,791,241	-	210,565	3,001,806	739,206	2,262,600	100%	-		
802	BABC	112,737	175,400	111,877	176,260	(73,100)	-	103,160	103,160	-	0%	-		pass-through funds, no allocation
806	BACC	29,091	72,366	71,647	29,810	(4,925)	-	24,885	24,885	-	0%	-		
807	BACC LEGAL RSRV	-	30,000	-	30,000	-	-	30,000	30,000	-	0%	-		
810	WOT	275,143	-	4,169	270,974	-	-	270,974	270,974	-	0%	-		pass-through funds, no allocation
	SUBTOTAL 2	416,971	277,766	187,693	507,044	(78,025)	-	429,019	429,019	-	0%	-		
	GRAND TOTAL	**3,209,670**	**4,382,434**	**4,293,819**	**3,298,285**	**(78,025)**	**210,565**	**3,430,825**	**1,168,225**	**2,262,600**	**-**			
						-	-	-	-					

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

Reconciliation to Trial Balance

Per Report above:		STB	14930	2,262,600	
General	4,104,668	STB	15050	1,168,225	
WOT, BABC, & BACC	277,766			**3,430,825**	-
PROP	-	STB	16300	78,025	
subtotal	**4,382,434**	STB	21350	(210,565)	
				3,298,285	-

Trial Balance Revenue Accounts

40100	Interest	(6,311)
40101	Mem Contrib	(1,439,676)
40102	Transfer	(1,038,644)
40103	Assoc Contrib	(183,175)
40104	Other	(1,714,628)
47310	State Grant	-
47320	Grant Retention	-
subtotal		**(4,382,434)**
Difference		**-**

BACWA Revenue Report as of June 30, 2022

Cost Center Code	Cost Center Description	Program Segment Description	Program Segment Value	Amended Budget	Current Period	FY22 - Year to Date	Unobligated
600	Bay Area Clean Water Agencies	BABC - AED and RPM Support	6200	(6,000.00)	(2,791.60)	(4,842.90)	1,157.10
		BACC - AED Support	6199	(27,200.00)	(1,200.00)	(1,200.00)	26,000.00
		BDO Affil/CS/Assoc Dues	6104	-	-	(38,087.00)	(38,087.00)
		BDO Affiliate/Associate Dues	6103	-	-	(39,295.50)	(39,295.50)
		BDO Assoc.&Affiliate Contr	6102	(187,793.00)	-	(105,792.36)	82,000.64
		BDO Fund Transfers	6141	(5,202.00)	-	(2,601.00)	2,601.00
		BDO Member Contributions	6101	(516,909.00)	-	(516,910.00)	(1.00)
		BDO Non-Member Contr AIR	6136	(7,075.00)	-	(7,074.72)	0.28
		BDO Non-Member Contr BAPPG	6135	(3,954.00)	-	(3,953.52)	0.48
		BDO Other Receipts	6105	-	-	(1,000.00)	(1,000.00)
		BDO Other Receipts (Misc)	6140	-	-	(2,601.00)	(2,601.00)
		BDO- Interest Income from LAIF	6142	(20,000.00)	-	(1,572.63)	18,427.37
		BDO-Alternative Investment Inc	6143	-	-	-	-
600 Total				**(774,133.00)**	**(3,991.60)**	**(724,930.63)**	**49,202.37**
602	Bay Area Biosolids Coalition	BDO Fund Transfers	6141		-	-	-
		BDO Member Contributions	6101		(89,600.00)	(175,400.00)	(175,400.00)
602 Total				**-**	**(89,600.00)**	**(175,400.00)**	**(175,400.00)**
605	Clean Bay Collaborative	BDO Fund Transfers	6141	-	-	(1,000,000.00)	(1,000,000.00)
		BDO Member Contributions	6101	(675,000.00)	-	(675,000.00)	-
		BDO Other Receipts	6105	(1,700,000.00)	-	(1,699,999.00)	1.00
		BDO- Interest Income from LAIF	6142	-	-	(4,739.05)	(4,739.05)
605 Total				**(2,375,000.00)**	**-**	**(3,379,738.05)**	**(1,004,738.05)**
606	Bay Area Chemical Consortium	BDO Member Contributions	6101	-	(757.76)	(72,366.08)	(72,366.08)
606 Total				**-**	**(757.76)**	**(72,366.08)**	**(72,366.08)**
607	BACC Legal RSRV	BDO Fund Transfers	6141	-	-	(30,000.00)	(30,000.00)
607 Total				**-**	**-**	**(30,000.00)**	**(30,000.00)**
Grand Total				**(3,149,133.00)**	**(94,349.36)**	**(4,382,434.76)**	**(1,233,301.76)**

BACWA Treasurer's Report Expenses and Encumbrances

Period Covering July 1, 2021 through June 30, 2022

Cost Center Code	Program Segment Description	Program Segment Value	Amended Budget	FY22 - Obligated Year to Date	Unobligated
600	AIR-Air Issues&Regulation Grp	6153	76,000.00	85,000.00	(9,000.00)
	AS-Assistant Executive Directo	6175	108,800.00	108,800.00	-
	AS-Audit Services	6180	5,345.00	10,690.00	(5,345.00)
	AS-BACWA Admin Expense	6173	7,959.00	133.61	7,825.39
	AS-EBMUD Financial Services	6176	42,448.00	41,143.84	1,304.16
	AS-Executive Director	6174	190,000.00	190,000.00	-
	AS-Insurance	6177	5,071.00	7,072.34	(2,001.34)
	AS-Regulatory Program Manager	6179	127,400.00	114,863.50	12,536.50
	Administrative Support	6178	-	1,000,000.00	(1,000,000.00)
	BC-BAPPG	6152	130,000.00	127,885.60	2,114.40
	BC-InfoShare Groups	6148	1,750.00	-	1,750.00
	BC-Laboratory Committee	6149	1,000.00	1,000.00	-
	BC-Manager's Roundtable	6154	1,000.00	-	1,000.00
	BC-Miscellaneous Committee Sup	6150	45,000.00	5,180.00	39,820.00
	BC-Permit Committee	6145	1,300.00	20.00	1,280.00
	BC-Pretreatment Committee	6151	1,000.00	-	1,000.00
	BC-Water Recycling Committee	6146	1,000.00	-	1,000.00
	CAR-BACWA File Storage	6165	765.00	720.00	45.00
	CAR-BACWA IT Software	6167	1,785.00	927.79	857.21
	CAR-BACWA IT Support	6166	2,652.00	2,652.00	-
	CAR-BACWA Website Dev/Maint	6163	1,530.00	770.00	760.00
	CAR-BACWA Website Hosting	6164	700.00	220.44	479.56
	CAS-Arleen Navaret Award	6160	2,500.00	-	2,500.00
	CAS-BayCAN	6204	-	1,500.00	(1,500.00)
	CAS-Misc Collaborative Sup	6162	1,500.00	9,000.00	(7,500.00)
	CAS-Stanford ERC	6159	10,000.00	-	10,000.00
	GBS-Meeting Support-Annual	6170	14,369.00	10,917.62	3,451.38
	GBS-Meeting Support-Exec Bd	6169	2,653.00	334.50	2,318.50
	GBS-Meeting Support-Misc	6172	5,306.00	1,385.98	3,920.02
	GBS-Meeting Support-Pardee	6171	6,367.00	648.12	5,718.88
	LS-Executive Board Support	6156	2,264.00	2,264.00	-
	LS-Regulatory Support	6155	2,815.00	2,815.00	-
	WQA-CE-Nature Based Solutions	6196	-	-	-
	Write-Off Doubtful Accounts	6208	-	-	-
600 Total			**800,279.00**	**1,725,944.34**	**(925,665.34)**
602	AS-Assistant Executive Directo	6175	-	-	-
	AS-Regulatory Program Manager	6179	-	-	-
	Academia Research & Development	6203	-	-	-
	Administrative Support	6178	-	2,791.60	(2,791.60)
	BDO Contract Expenses	6186	-	-	-
	Collateral Development	6197	-	-	-
	Program Manager Expense	6202	-	122,051.30	(122,051.30)
	Technology Research & Development	6206	-	2,500.00	(2,500.00)
602 Total			**-**	**127,342.90**	**(127,342.90)**
605	Recycled Water Evaluation	6198	63,525.00	43,197.71	20,327.29
	WQA - CEC Investigations	6201	140,000.00	361,639.75	(221,639.75)
	WQA-CE Addl Work Under Permit	6191	100,000.00	26,602.00	73,398.00
	WQA-CE Risk Reduction	6190	7,500.00	25,000.00	(17,500.00)
	WQA-CE Voluntary Nutr Contrib	6193		-	-
	WQA-CE-Nature Based Solutions	6196	248,811.00	299,224.50	(50,413.50)
	WQA-CE-Nutrient WS Permit Comm	6188	2,600,000.00	2,200,000.00	400,000.00
	WQA-CE-Technical Support	6181	100,000.00	-	100,000.00
	WQA-NMSReviewer	6205	50,000.00	50,000.00	-
605 Total			**3,309,836.00**	**3,005,663.96**	**304,172.04**
606	Administrative Support	6178	-	41,646.95	(41,646.95)
	BDO Fund Transfers	6141	-	30,000.00	(30,000.00)
606 Total			**-**	**71,646.95**	**(71,646.95)**
610	Administrative Support	6178	-	2,703.19	(2,703.19)
	BDO Contract Expenses	6186	-	1,465.46	(1,465.46)
610 Total			**-**	**4,168.65**	**(4,168.65)**
Grand Total			**4,110,115.00**	**4,934,766.80**	**(824,651.80)**

BACWA EXECUTIVE BOARD AUTHORIZATION REQUEST

AGENDA NO.: 6

MEETING DATE: August 19, 2022

TITLE: 2nd Watershed Permit FY23 funding commitment - first installment of $1,000,000

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

RECOMMENDED ACTION

Authorize first installment of payment in the amount of $1,000,000 to San Francisco Estuary Institute (SFEI) in order to comply with the provisions of the 2nd Watershed Permit for FY23, to be paid from the CBC fund.

SUMMARY

The second Watershed Permit for Nutrients from Municipal Wastewater Dischargers to San Francisco Bay, NPDES Permit No. CA 0038873 adopted May 8, 2019, requires the commitment of $2,200,000 per year from POTW Dischargers as a collective effort to fund needed scientific studies as part of the implementation of the Regional Water Quality Control Board's Nutrient Management Strategy. The commitment is on a fiscal year basis and began July 1, 2019. Over the five year permit term, this is equivalent to a requirement to pay a total of $11,000,000. BACWA's role in meeting this commitment is to collect the needed funds from its membership and provide those funds for the undertaking of the scientific studies. In the first two fiscal years of the Watershed Permit, some of this funding was "frontloaded" to accelerate the pace of the science. The previous and anticipated annual contribution to the NMS for each fiscal year of the permit is listed below:

Schedule of BACWA payments to the NMS to comply with second Watershed Permit

FY20	**FY21**	**FY22**	**FY23 (budgeted)**	**FY24 (proposed)**	**Total**
$2.6M	$2.6M	$2.2M	$1.8M	$1.8M	**$11M**

The identification of the studies to be undertaken is through a stakeholder governance Steering Committee on which BACWA holds two seats. Several studies are ongoing as a result of approvals of programs and projects by the Steering Committee.

This authorization of payment in the amount of $1,000,000 to SFEI will partially meet the obligation for the fourth year of the Discharger's annual obligation under the five-year Watershed Permit per the above schedule. The purpose of delivering the payment in two installments is to ensure continuity in the Science Program in FY23. The second installment of $800,000 will be brought to the Executive Board for approval after the FY23 nutrient surcharge revenues are received from member agencies.

FISCAL IMPACT

This and other payments to fund the scientific studies are collected from the BACWA membership through a Nutrient Surcharge that is included on the annual due's invoice sent to the BACWA members, as well as a drawdown of BACWA reserves, as authorized by BACWA's Executive Board. This payment was included in BACWA's FY23 Budget, approved on April 15, 2022.

ALTERNATIVES

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

Approved: Date:

Amit Mutsuddy, Chair
BACWA Executive Board

BACWA EXECUTIVE BOARD ACTION REQUEST

AGENDA NO.: 7
MEETING DATE: August 19, 2022

TITLE: Request for Board Approval of Revised BACWA Policy BAP – 1.01 BACWA Representation

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

RECOMMENDED ACTION
Approve Revised BACWA Policy BAP – 1.01 BACWA Representatives that outlines the selection, approval, and responsibilities of BACWA Members representing BACWA to other external Committees, Boards, Workgroups, and Projects.

SUMMARY: BACWA members often serve as volunteers on external committees, boards, workgroups and projects. When opportunities arise to represent BACWA, interest on the part of the membership will be solicited. In some cases, the Board will formally select the representative (e.g. Nutrient Management Strategy Steering Committee, Aquatic Science Center) while in other cases a BACWA Committee will chose a representative. The Board will be notified of a change in representatives by the Executive Director and through the periodic review of the BACWA Succession Plan, will confirm all representatives.

The proposed update to the Representative Policy, which was approved in 2018, clarifies that the Board will review the Representative list at least every two years, with the intent of rotating interested member agency staff through BACWA's representative roles.

FISCAL IMPACT
No fiscal impact to BACWA.

ALTERNATIVES
This action does not require consideration of alternatives.

Attachment; Proposed revised BACWA Policy BAP – 1.01

Approved: _____ Date: August 19, 2022

Amit Mutsuddy, Chair
BACWA Executive Board

POLICY NUMBER: BAP – 1.01

NAME OF POLICY: BACWA Representation

DATE APPROVED: 12-21-2018

LAST REVISED:

PURPOSE: A policy outlining the selection, approval, and responsibilities of BACWA Members representing BACWA to other external Committees, Boards, Workgroups and Projects.

POLICY

BACWA members often serve as volunteers on external committees, boards, workgroups and projects. When opportunities arise to represent BACWA, interest on the part of the membership will be solicited. In some cases, the Board will formally select the representative (e.g. Nutrient Management Strategy Steering Committee, Aquatic Science Center) while in other cases a BACWA Committee will chose a representative. The Board will be notified of a change in representatives by the Executive Director and through the periodic review of the BACWA Succession Plan, will confirm all representatives.

BACWA representatives have the following responsibilities:

1. Keep abreast of key activities, events, and information on their particular issues
2. Attend important meetings, hearings, seminars, etc. on the issue whenever held
3. Keep the BACWA Board informed on needed input being sought on an issue
4. Get direction from the Board on the BACWA input on an issue in advance of providing the input
5. Report back to the Board after providing the input and/or participating in the activity on the issue

Each representative role will be reviewed every two years to ensure that different members of the BACWA community have the opportunity to serve in that role if interested.

DRAFT

Total Inorganic Nitrogen Projections to Inform 3rd Nutrient Watershed Permit Discussions

DRAFT

August 2022

Background

Nutrient discharges by municipal POTWs in the San Francisco Bay Region are governed by the second Nutrient Watershed Permit (R2-2019-0017), which was adopted in May 2019, and came into effect July 1, 2019. This permit is the second reissuance of the Nutrient Watershed Permit, which was first issued in May 2014 (R2-2014-0014).

BACWA and its members comply with the key tenets of the second Nutrient Watershed Permit as follows:

1. **Nutrient Monitoring**– Each agency is responsible for monitoring its effluent for nitrogen and phosphorus species. Agencies with permitted flow greater than 10 mgd also conduct influent monitoring.
2. **Reporting** – BACWA develops the Group Annual Report, due each year on February 1, using monitoring data provided by each member agency. The reporting year is October through September to capture continuous dry seasons.
3. **Support for Scientific Studies** – Dischargers are required to conduct or fund scientific studies to better understand the impacts of nutrients on the San Francisco Bay (Bay). BACWA collects a nutrient surcharge from its members. These funds are delivered to the San Francisco Estuary Institute, which uses them to support studies associated with the San Francisco Bay Nutrient Management Strategy.
4. **Special Studies** – Two studies are required by the current Nutrient Watershed Permit:
   - Regional Evaluation of Potential Nutrient Discharge Reduction by Natural Systems
   - Regional Evaluation of Potential Nutrient Discharge Reduction by Water Recycling

   These two studies are ongoing, and their results will be compared to the Nutrient Reduction Study that was required by the first Watershed Permit. The Nutrient Reduction Study, completed in 2018, looked at potential alternatives for nutrient reductions at each agency via optimization, upgrades, and sidestream treatment.

Nutrient discharges are not limited in the current permit, but that Fact Sheet envisions that they may be in a subsequent issuance of the Nutrient Watershed Permit (Pg F-13):

> *Based on the most up-to-date scientific findings, the Regional Water Board will consider establishing effluent limitations when reissuing this Order in 2024 to prevent further increases in nutrient loads from municipal wastewater treatment plants.*

The second Nutrient Watershed Permit establishes a baseline derived from dry season Total Inorganic Nitrogen (TIN) discharge data gathered from 2014 through 2017, and uses those data to calculate load targets for 2024. These two metrics are described as "Current Performance" and "2024 Dry Season Average Load Targets" in Table F-5 in the Watershed Permit. The Fact Sheet states that the Regional Water Board will consider additional factors when translating load targets to limits in the third Watershed Permit (Pg F-16):

> *Before implementing any load targets as effluent limitations, the Regional Water Board may adjust them if necessary (e.g., to account for decreased recycled water demand, increased biosolids management, increased daytime worker population, or new or expanded waste-to-energy programs).*

These additional considerations are important, since SB 1383 requires a 75% diversion of organics (including biosolids) from landfills by 2025, using 2014 levels as the baseline. The state recognizes the wastewater sector is critical to the achievement of the landfill reduction mandates. Existing infrastructure, with anaerobic digestion upgrades, can accept diverted food waste for co-digestion, and diverted green waste can be added to biosolids composting facilities. While accepting organic waste streams can help the state meet its greenhouse gas reduction goals, it is a new source of nitrogen to POTWs that would increase TIN loading to the effluent.

Besides potentially accepting organic waste because of SB 1383, agencies are considering changes to their solids handling processes to improve biosolids quality and/or reduce the volume generated to increase options for reuse and disposal. Some of these projects will result in transferring nitrogen to the facility's liquid stream that had previously been hauled away with their biosolids.

The Watershed Permit recognizes the importance of encouraging early actors to initiate projects to reduce their nutrient loads before being required to do so by the Watershed Permit (Pg F-16):

> *If the most up-to-date scientific information indicates that nutrient loads must be capped or reduced, the Regional Water Board will recognize early actions (i.e., Dischargers' capital or operational improvements or other means that significantly reduce nutrient loads during this Order term) when considering compliance with nutrient load caps or reductions in a subembayment. This will likely result in findings that no further actions by these Dischargers will be necessary for the design life of the associated capital improvements, provided that other Dischargers can implement capital improvements to reduce nutrient loads below the subembayment cap. Any Discharger who significantly reduces nutrient loads during this Order term will be considered for recognition as an early actor.*

Purpose of Memo

As part of discussions about how load limits will be calculated in the next Watershed Permit, BACWA collected and compiled information from its members about projects that will impact their TIN loads over the next permit cycle. This information pertains to the following :

- Increased recycled water that will divert TIN loads from the Bay
- Agencies that currently receive diverted organic waste
- Agencies with plans for future organic waste diversions
- Agencies with plans to change their solids handling process

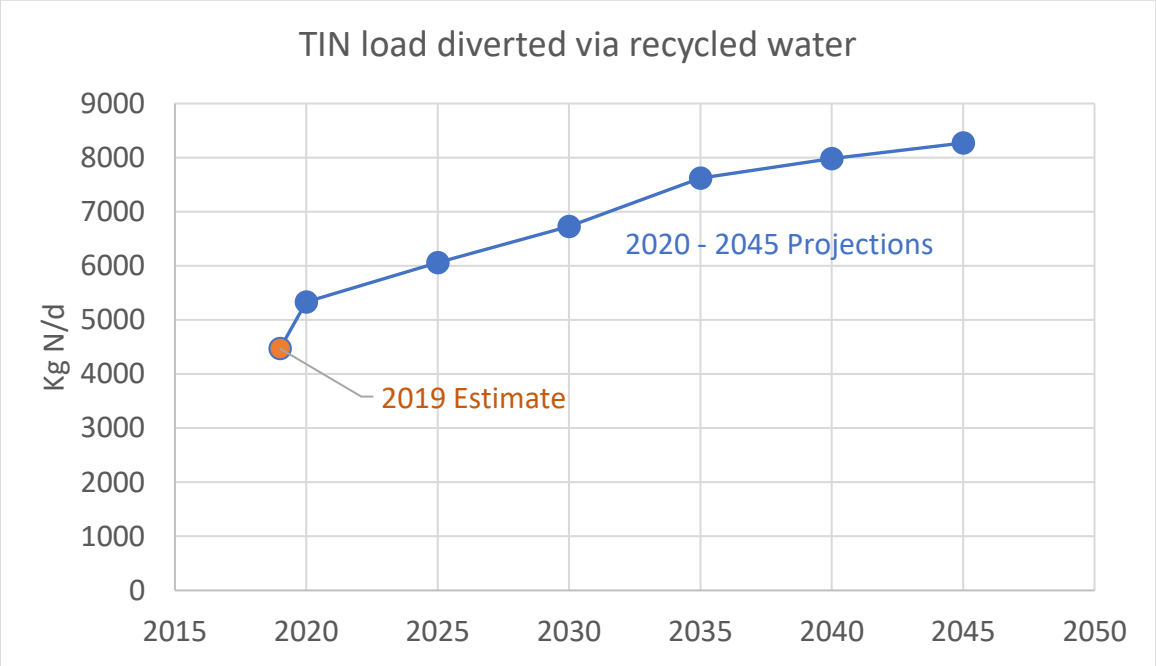
- Agencies that have already taken early action, or have committed to take early action to reduce effluent nutrient loads in the next Watershed Permit

This memo will remain in draft form so that it can be updated as new information becomes available.

Recycled Water

As part of compliance with the current Watershed Permit, dischargers are required to perform a regional evaluation of TIN loads currently diverted from the Bay by water recycling, and agencies' plans to increase TIN diversions via recycled water in the future. The final evaluation will be submitted to the Regional Water Board by July 1, 2023, as required by the permit. Preliminary data gathered from agencies show that in 2019, approximately 4,500 kg N/d were diverted from the Bay via recycled water. By 2040, our best estimate based on agencies' plans is that 8,300 kg N/d will be diverted from the Bay via recycled water.

The figure below illustrates this anticipated increase in loads diverted (i.e. loads to the bay reduced through recycled water) through 2045:



Early actors

The Regional Water Board has indicated the importance of encouraging early actors by recognizing them in the Nutrient Watershed Permit. The following table lists early actors with projects that are complete (since 2014) or targeted for completion during the next permit term (2024-2029). Cost and TIN reduction are also provided where they are available. It should be noted that costs are provided for the entire project, which may have a scope that is larger than TIN removal.

Early Actors and project descriptions

Agency	Completion Date	Target TIN (mg/L)	Estimated Load reduction (%)	Estimated Load Reduction (kg/d)	Total Project Capital Cost Estimate $ (2022 $)	O&M Cost $/yr	Description
Hayward, City of	2025	<20 mg/L	30%	450			BNR Upgrade
Oro Loma	2020	50% reduction	>70%	1,500	$24.7M	Additional ~50-100k	MLE process PLUS EPA Regional Grant for sidestream treated with Microvi Technology
Palo Alto, City of	2027	<15mg/L	50%	800	$150M		BNR Upgrade
Pinole, City of	2022+	<25 mg/L	~50%	135	$20-$30M		MLE Process; Several other upgrades were implemented across the plant
San Jose, City of	2019	n/a	n/a	1,200		Reduction (extent unclear)	BNR operations improvements that has shown over 1,000 kg/d overall since the 2019 dry season. A capital project to upgrade the existing BNR process is in the scoping and implementation planning stage. The upgrade will modify existing aeration basins to implement simultaneous nitrification and denitrification (SND) and add new technology to select higher density return activated sludge using inDense hydrocyclones. These upgrades will be implemented in phases over time across the four separate BNR batteries. The scale and timing of the phases is currently under evaluation with consideration of how the upgrade can be funded and implemented within the existing

Agency	Completion Date	Target TIN (mg/L)	Estimated Load reduction (%)	Estimated Load Reduction (kg/d)	Total Project Capital Cost Estimate $ (2022 $)	O&M Cost $/yr	Description
							CIP plans. Early demonstration scale implementation is planned for the 2026 – 2029 timeframe. Following full scale implementation (timeline TBD), the facility will be capable of remaining below its current PLT for the foreseeable future.
San Leandro, City of	2023	n/a	10-20%	~100	$4.5M		Constructed wetland
San Mateo, City of	2025	<15 mg/L	58%	~750	>$550M	$6M in additional utility, chemical, and staffing costs, not inclusive of future equipment replacement costs.	New headworks, primary sedimentation system, and secondary MLE process, membrane bioreactors, and wet weather storage / equalization. Wet weather improvements include BioActiflo to meet secondary treatment criteria.
Sunnyvale, City of	2027	<12 mg/L	30%	260	$260M		The Discharger currently removes an annual average of approximately 60% of influent TN in the existing secondary treatment system (oxidation ponds, fixed-growth reactor nitrification, and dissolved air flotation). As part of the Sunnyvale

Agency	Completion Date	Target TIN (mg/L)	Estimated Load reduction (%)	Estimated Load Reduction (kg/d)	Total Project Capital Cost Estimate $ (2022 $)	O&M Cost $/yr	Description
							Cleanwater Program, the Discharger is replacing its existing secondary treatment system in two phases. Phase I will construct a new MLE configured Conventional Activated Sludge system, consisting of two aeration basins, four secondary clarifiers, and associated appurtenances. The system will operate in parallel with the existing secondary treatment system after 2027. Approximately two-thirds of primary-treated flow will be treated by the Phase I system and the remaining one-third of the flow will be treated by the existing system. In addition, a future Phase II will replace the existing system by 2035. Information provided is for Phase I blended effluent during average dry weather conditions only.
Treasure Island	2026	<8.0 mg/L	60% (1)	12 (1)	$222M (2022 estimate)	$4.1 million (2)	New MBR plant will include a wetland to provide wet weather storage & incidental polishing.
USD	2028	21 mg/L	44%	~1,620	$428M	$1M	BNR Upgrade
West County	2017	N/A (focus	N/A (focus	N/A (focus	$19M	Unclear	Implemented various upgrades in 2017 that improved nitrification reliability (marginal improvements to

Agency	Completion Date	Target TIN (mg/L)	Estimated Load reduction (%)	Estimated Load Reduction (kg/d)	Total Project Capital Cost Estimate $ (2022 $)	O&M Cost $/yr	Description
		was on ammonia)	was on ammonia)	was on ammonia)			TIN load reduction). New upgrades in design now.
Total				6,700	>$1.5B		

Notes:

(1)* Future loads are uncertain due to anticipation of redevelopment; load reduction was calculated assuming the same effluent flow and reduced TIN concentration.

(2) The estimated cost of $4.1 million includes costs of $1.9M for operational labor; $0.8M for maintenance; $0.1M for solids hauling; $0.1M for chemical cost; and $1.2M for power. (Source: SFPUC New Treasure Island Wastewater Treatment Plant Conceptual Engineering Report, January 2020, (p. 7-17)

In summary, early actors have committed to projects that will eventually reduce nutrient loads by 6,800 kg N/d compared to the beginning of the second watershed permit. Oro Loma and San Jose have already completed 2,700 kg N/d of this reduction. An additional 4,100 kg N/d reduction is expected during the third permit term due to the early actions above. Total capital costs associated with these projects are estimated at over $1.5 billion.

Cost comparison with 2018 Optimization/Upgrade study

The Nutrient Reduction Study required by the first Nutrient Watershed Permit identified potential options for optimization, upgrades, or sidestream treatment. The comparison of current cost estimates or actual costs (where available) associated with the early actors' projects with the costs identified in the 2018 Optimization/Upgrade Study are shown in the table below. This information is provided for comparative purposes, even though the projects identified in the 2018 Optimization/Upgrade study are not necessarily the same as the treatment upgrades in the currently planned projects, and may not achieve the same nutrient reduction objectives.

Agency	Capital Cost Estimates		O&M Cost Estimates	
	Optimization Upgrade report (2018 $)	New Estimate (2022 $)	Optimization Upgrade report (2018 $/yr)	New Estimate $/yr (2022 $)
Hayward, City of	$190M		$3.9M	
Oro Loma	$180M	$24.7M	$3.9M	~50-100k
Palo Alto, City of	$143M	$150M	$4.3M	
Pinole, City of	$21M	$20-30M	$21M	
San Jose, City of	N/A	N/A	$3.3M	
San Leandro, City of [1]	$10M	$4.5	$0.2M	
San Mateo, City of	$310M	$300M-350M	$6.1M	
Sunnyvale, City of	$242M	$260M	$1.6M	
Treasure Island[2]	$41M	$222M (2022 estimate)	$0.9M	$4.1 million (2)
USD	$500M	$428M	$6.1M	$1M
West County[3]	$55M			

Notes:

(1) Wetland treatment
(2) Full plant rebuild
(3) Ammonia removal only.

Organic diversion projects

To better understand the potential impact from organics diversion projects on TIN loads to the Bay, BACWA conducted a survey to determine which members currently receive diverted organic material for co-digestion, and which members are planning either new or expanded organic diversion projects, as described in the tables below.

While several agencies that don't currently have organics diversion programs are considering implementing one, few agencies have fully planned details of their projects, including potential TIN loads increases that would be associated with these projects. Consequently, if the intention is to avoid disincentivizing organics diversion, the load caps in the third Watershed Permit will need to be carefully crafted to accommodate these projects.

Agencies with existing organics diversion projects (excludes fats, oils, and grease (FOG))

Agency	Relative contribution to TIN loads	Future expansion
CMSA	The relative contribution of organic waste TIN to wastewater sludge is not currently known, as the agency does not perform Nitrite, Nitrite and Ammonia analyses on the various sludge streams and side streams.	CMSA staff will begin to identify additional organic waste feedstock streams once the new higher-capacity cogeneration system is operational and the new power purchase agreement is finalized. Difficult to predict due to unknown availability of organic waste feedstocks, but long term could range between 5-100%.
EBMUD	20-30%	
FSSD	There is some (as-yet-unquantified) impact of a slight reduction in filtrate over pre-Lystek conditions (i.e., pre-2016)	There will be a more significant nutrient reduction as FSSD sends more and more un-dewatered biosolids to Lystek and therefore eliminates a portion of the filtrate return stream. Ideally, we can completely bypass dewatering, but that requires an appropriate mass balance of water/solids between FSSD's biosolids and all the third party deliveries to hit Lystek's target concentration.
Hayward, City of	20-25% of digester loading	

Agencies with plans for future organics diversion programs (excludes fats, oils, and grease (FOG))

Agency	Project description	Increased TIN loads attributable to project
Delta Diablo	In 2019, the District completed a 30% design for a large co-digestion project in partnership with Mt. Diablo Resource	Preliminary estimates indicate an increase in

	Recovery (MDRR), a local solid waste hauler, but the project is on hold due to favorable near-term composting rates secured by MDRR. MDRR's long-term plans include organics pre-processing equipment that would most likely create a co-digestion feedstock, but the timing of the project is unknown at this time. The District is currently finalizing a resource recovery master plan which includes analysis of potential feedstocks for co-digestion that can be accepted through the District's existing FOG receiving facility and has recently been approached about accepting cheese whey from a local source.	TIN load of 342 kg/d from the imported organics.
Millbrae, City of	Cogen project will be built in the next 5 years. No change.	
Rodeo	Considering a co-digestion project, expected to have de minimis impact on TIN loads to the Bay due to small size of facility.	
San Jose, City of	Unknown at this time. Any plans are entirely conceptual in nature. Discussions are focused on scale of a potential future program (volume that could be accepted), nature of organics material that might be accepted, and how the material could possibly be integrated into existing or future planned processes.	Options have not been evaluated quantitatively.
San Leandro, City of	The organics will be from current dischargers.	None
SFO	SFO submitted a grant proposal to the EPA – Anaerobic Digestion Cooperative. If awarded, the grant funding will allow us to perform a feasibility study to evaluate co-digestion opportunities to process organic waste along with wastewater sludge at MLTP. The Study (Phase I) and bench test scale test (Phase II) would determine the viability and scale MLTP could harness from the operation. Anticipated timeline for the project: Phase I: March 2022 – May 2023 Phase II: June 2023 -January 2024	No estimate.
Silicon Valley Clean Water	5% TIN Increase 2,600 kg/D current performance to 2730 kg/D 5% increase. SVCW will be accepting a 5-15% slurry of black bag organics from the Recology Shoreway Solid Waste Facility in Redwood City, CA. The total estimated gallons per day would be 10,000 gpd with the potential to generate an ammonia load increase to the plant process up to 5%. Organic shipments to SVCW are expected to start in April 2021.	Approximately 130 kg/d.
South San Francisco, City of	No description	
Sunnyvale, City of	The new Secondary Treatment and Dewatering Facilities are being designed to achieve the Level 2 target of 15	Sunnyvale is an early actor. Additional

	mg/L TN, inclusive of a future co-digestion program aimed at processing 90 tons per day of food waste at full build-out by 2035. Higher nitrogen loads from anaerobic digestion of high-strength food waste will be reduced in a DEMON sidestream treatment process, the effluent of which will be conveyed to the new CAS system. Effluent TIN loads by 2035 are currently estimated to be 700 kg/day, which includes our latest estimates of growth. Sunnyvale is updating the Cleanwater Program Master Plan to address the projected increases in TIN loading rates.	nitrogen loads will be treated via sidestream. Total TIN loads after implementation are expected to be well below baseline.
USD	The actual percentage is unknown at this time.	

Agencies planning changes to biosolids handling

As SB 1383 requires the reduction of organic materials to landfill, several agencies are planning solids handling upgrades that will decrease the total volume of biosolids that they will need to haul, or to improve the quality of their biosolids products to increase potential reuse options. Some of these projects will result in nitrogen that had previously been removed with the biosolids stream being returned to the facility's liquid stream.

Agencies considering or implementing projects to upgrade biosolids treatment and handling are listed in the table below:

Agencies Planning Changes to Solids Handling

Agency	Solids Upgrade Description
CCCSD	Discontinuation of incineration sometime in the next 15+ years.
DSRSD	Delta Diablo currently operates a dual biological secondary treatment process (trickling filters and activated sludge) and is just starting the predesign process to expand secondary treatment capacity. A potential outcome of the expansion is the decommissioning of the trickling filters which will increase solids production and associated nitrogen load to the effluent.
San Jose, City of	A change to solids management that is underway will result in an increase of 1000 to 1200 kg per day of effluent TIN once fully implemented (approximately a 20% – 25% increase over current effluent TIN loads). The full change to solids management includes implementing co-thickening of primary and secondary sludges, Chemically Enhanced Primary Treatment (CEPT), Temperature-Phased Anaerobic Digestion (TPAD), and mechanical dewatering of digested solids (using centrifuge dewatering that will result in a centrate return side-stream with high nitrogen). The CEPT will divert additional carbon to the TPAD digesters, which will improve biogas production, allowing for greater, more efficient, and more climate-friendly (greener) on-site energy production to power the Facility with the new cogeneration engines. The diversion of additional carbon to the TPAD digesters will increase the sustainability of onsite energy generation but

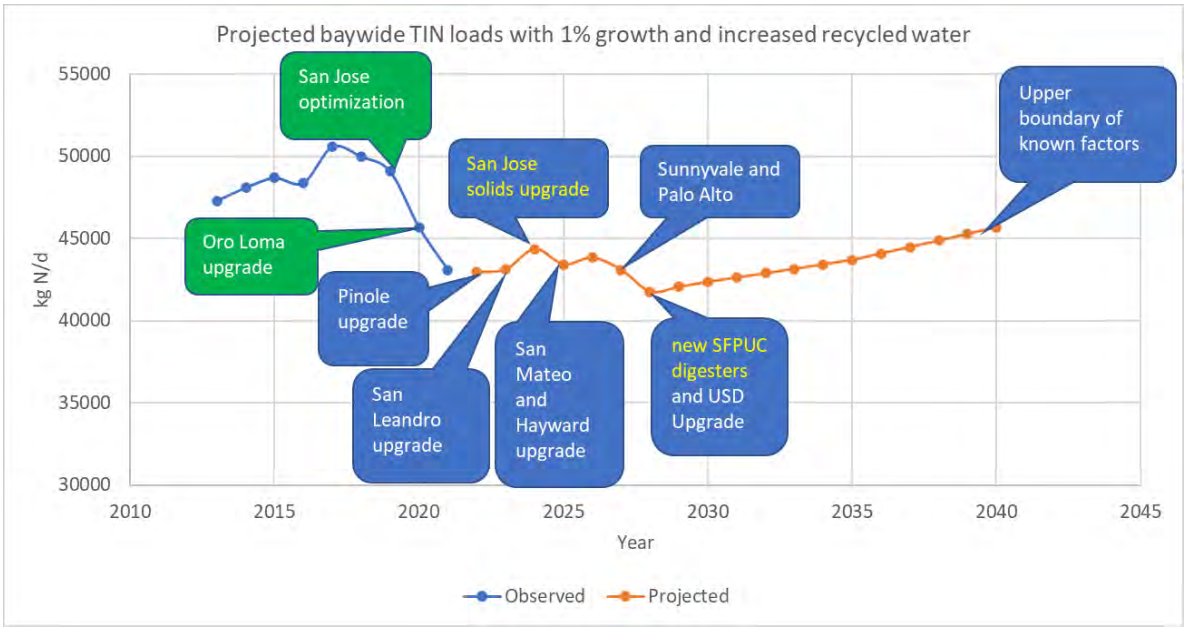
	will decrease the amount of carbon available to the BNR process, reducing the amount of denitrification that can occur in the existing secondary process due to carbon limitation. The change to mechanical dewatering of digested solids (currently solids are stabilized in lagoons and then solar dried in drying beds), will increase the return TIN load from dewatering compared to the current process. Mechanical de-watering is the last phase of the changes to solids handling that will be implemented and is currently forecasted to be operational in 2025. The centrate return from the mechanical dewatering facility and reduction in carbon available for denitrification will result in an increase of ~1000 to 1200 kg per day of effluent TIN once all changes are implemented. This increase does not factor in increased loads due to population growth. The future capital project described in the early actors table will eventually account for the projected increases in effluent TIN loads. The project will modify and upgrade the secondary aeration basins in the existing BNR process with upgrades implemented in phases over time across the four separate BNR batteries. The scale and timing of the phases is currently under evaluation with early demonstration scale implementation planned for the 2026 – 2029 timeframe. Depending on scale, timing, and effectiveness of the early demonstration phase, the upgrades could possibly offset all or a significant portion of the effluent load increase from the changes to solids management.
SFPUC	Replacement of the existing digesters (Biosolids Digester Facilities Project) is projected to increase TIN concentrations by approximately 1.6%. Facilities are expected to be operational in 2028.

Summary of Load Projections

Each of the elements described in this memo, from recycled water projects, to organics diversions, solids handling, and early actions, will impact the total TIN loading to the Bay. To understand the impact of load caps, it is critical to have a sense of the trajectory of TIN loads. The figure below illustrates historical and anticipated dry season TIN loading. The anticipated changes in load incorporate the following:

- 1% annual regional population growth, consistent with Plan Bay Area 2050
- TIN load reductions via recycled water, based on preliminary information obtained from the Recycled Water Evaluation being conducted in compliance with the Nutrient Watershed Permit
- Decrease in TIN due to early actor projects which will be implemented over the current and next permit term, as reported above
- Increase in TIN due to anticipated changes in solids handling, as reported above

It should be noted that while the orange “projected” line goes up and to the right, several agencies have long term plans to reduce nutrient loads that are not yet well characterized and are therefore not included in the early actors table. The orange line reflects the maximum TIN load we expect to see beyond 2029 based on known or controllable factors; actual loads will likely be lower as agencies continue to implement upgrades.

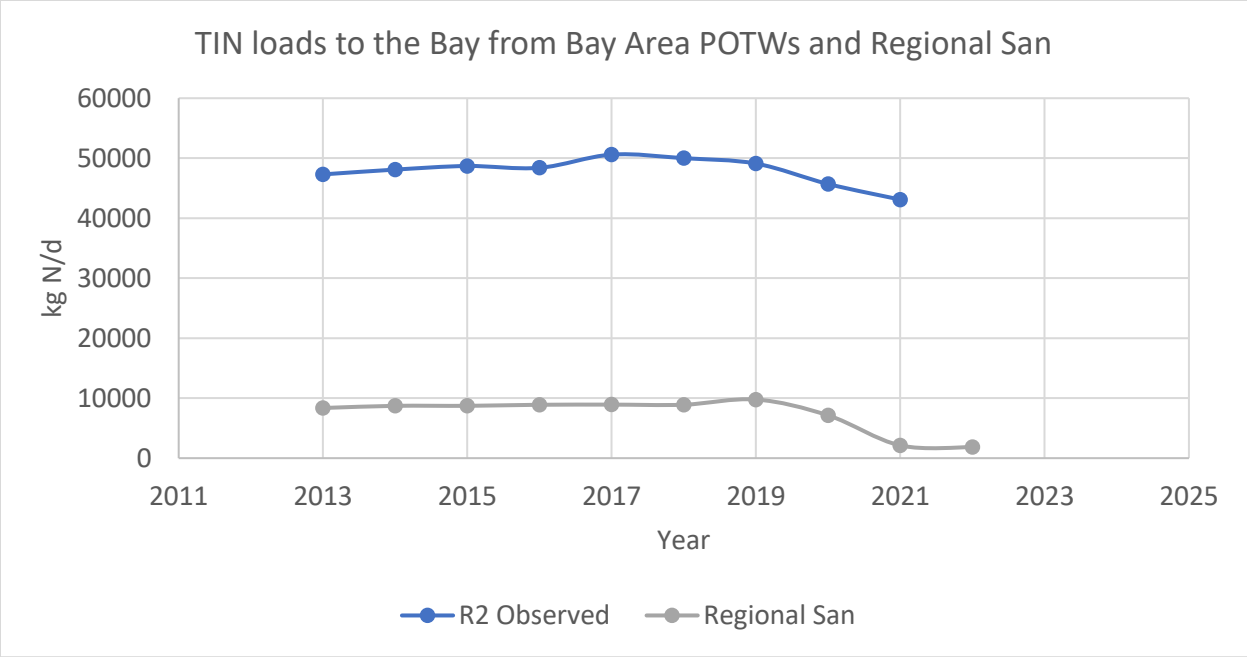


The figure does not account for new or expanded organics diversion projects, which are uncertain in scope and timing. It also does not account for the inherent variability in the data. Recent analysis has shown that for individual agencies, variability in the data often results in larger year to year TIN load differences than explicable factors. However, this variability tends to be lessened when averaged over time, and when multiple agencies' loads are aggregated together.

Impact of Regional San Upgrade

One final consideration when considering the trajectory of nutrient loading to the Bay is the recent nutrient removal upgrade by the Sacramento Regional Wastewater Treatment Plant (Regional San). While Regional San is not a permittee covered by the Nutrient Watershed Permit, its discharges ultimately enter the Bay via the Delta and are responsible for a large fraction of nutrient loading to the Bay (Senn et al., 2020). Historically, Regional San's dry season nutrient loads have been in the 12,000 to 14,000 kg N/day range, and post-upgrade, they are in the 2,000 to 4,000 kg N/day range, a decrease of approximately 10,000 kg N/day. Some of that nitrogen is assimilated during transport through the Delta, so assuming a 35% reduction via that route (Novick et al., 2015), the Bay is now receiving approximately 6,500 kg N/day less from Delta flows than the time period before 2020. In the future, Regional San plans to recycle most of its dry season effluent flows, so the contribution of nitrogen from the Delta is expected to decrease even further.

The figure below compares the TIN loads to the Bay from Bay Area POTWs and from Regional San, assuming a 35% reduction of TIN via assimilation during transport through the Delta.


TIN loads to the Bay from Bay Area POTWs and Regional San
60000
50000
40000
30000
20000
10000
0
kg N/d
2011
2013
2015
2017
2019
2021
2023
2025
Year
R2 Observed
Regional San

Nutrient Watershed Permit 3.0

Status Update

DRAFT

August 2022

Background

Second Nutrient Watershed Permit

Nutrient discharges by municipal Publicly Owned Treatment Works (POTWs) in the San Francisco Bay (SF Bay) Region are governed by the second Nutrient Watershed Permit (R2-2019-0017), which was adopted by the San Francisco Bay Regional Water Quality Control Board (Regional Water Board) in May 2019, and came into effect July 1, 2019. This permit is the second reissuance of the Nutrient Watershed Permit (Watershed Permit), which was first issued in May 2014 (R2-2014-0014). BACWA and its members comply with the key tenets of the second Watershed Permit as follows:

1. **Nutrient Monitoring**– Each agency is responsible for monitoring its effluent for nitrogen and phosphorus species. Agencies with permitted flow greater than 10 mgd also conduct influent monitoring.
2. **Reporting** – BACWA develops the Group Annual Report, due each year on February 1, using monitoring data provided by each member agency. The reporting year is October through September to capture continuous dry seasons.
3. **Support for Scientific Studies** – Dischargers are required to conduct or fund scientific studies to better understand the impacts of nutrients on the SF Bay. BACWA collects a nutrient surcharge from its members. These funds are delivered to the San Francisco Estuary Institute, which uses them to support studies associated with the San Francisco Bay Nutrient Management Strategy.
4. **Special Studies** – Two studies are required by the current Watershed Permit:
   - Regional Evaluation of Potential Nutrient Discharge Reduction by Natural Systems
   - Regional Evaluation of Potential Nutrient Discharge Reduction by Water Recycling

   These two studies are ongoing, and their results will be compared to the Nutrient Reduction Study that was required by the first Watershed Permit. The Nutrient Reduction Study, completed in 2018, looked at potential alternatives for nutrient reductions at each agency via optimization, upgrades, and sidestream treatment.

Second Watershed Permit Fact Sheet language envisioning the third Watershed Permit

Nutrient discharges are not limited in the current permit, but that Fact Sheet envisions that they may be in a subsequent issuance of the Nutrient Watershed Permit (Pg F-13):

> *Based on the most up-to-date scientific findings, the Regional Water Board will consider establishing effluent limitations when reissuing this Order in 2024 to prevent further increases in nutrient loads from municipal wastewater treatment plants.*

The second Nutrient Watershed Permit establishes a baseline derived from dry season Total Inorganic Nitrogen (TIN) discharge data gathered from 2014 through 2017, and uses those data to calculate load targets for 2024. These two metrics are described as "Current Performance" and "2024 Dry Season Average Load Targets" in Table F-5 in the Watershed Permit. The Fact Sheet states that the Regional Water Board will consider additional factors when translating load targets to limits in the third Watershed Permit (Pg F-16):

> *Before implementing any load targets as effluent limitations, the Regional Water Board may adjust them if necessary (e.g., to account for decreased recycled water demand, increased biosolids management, increased daytime worker population, or new or expanded waste-to-energy programs).*

These additional considerations are important, since SB 1383 requires a 75% diversion of organics (including biosolids) from landfills by 2025, using 2014 levels as the baseline. The state recognizes the wastewater sector is critical to the achievement of the landfill reduction mandates. Existing infrastructure, with anaerobic digestion upgrades, can accept diverted food waste for co-digestion. While accepting organic waste streams can help the state meet its greenhouse gas reduction goals, it is a new source of nitrogen to POTWs that would increase TIN loading to the effluent.

Besides potentially accepting organic waste because of SB 1383, agencies are considering changes to their solids handling processes to improve biosolids quality and/or reduce the volume generated to increase options for reuse and disposal. Some of these projects will result in transferring nitrogen to the facility's liquid stream that had previously been hauled away with their biosolids.

The second Watershed Permit recognizes the importance of encouraging early actors to initiate projects to reduce their nutrient loads before being required to do so by the Watershed Permit (Pg F-16):

> *If the most up-to-date scientific information indicates that nutrient loads must be capped or reduced, the Regional Water Board will recognize early actions (i.e., Dischargers' capital or operational improvements or other means that significantly reduce nutrient loads during this Order term) when considering compliance with nutrient load caps or reductions in a subembayment. This will likely result in findings that no further actions by these Dischargers will be necessary for the design life of the associated capital improvements, provided that other Dischargers can implement capital improvements to reduce nutrient loads below the subembayment cap. Any Discharger who significantly reduces nutrient loads during this Order term will be considered for recognition as an early actor.*

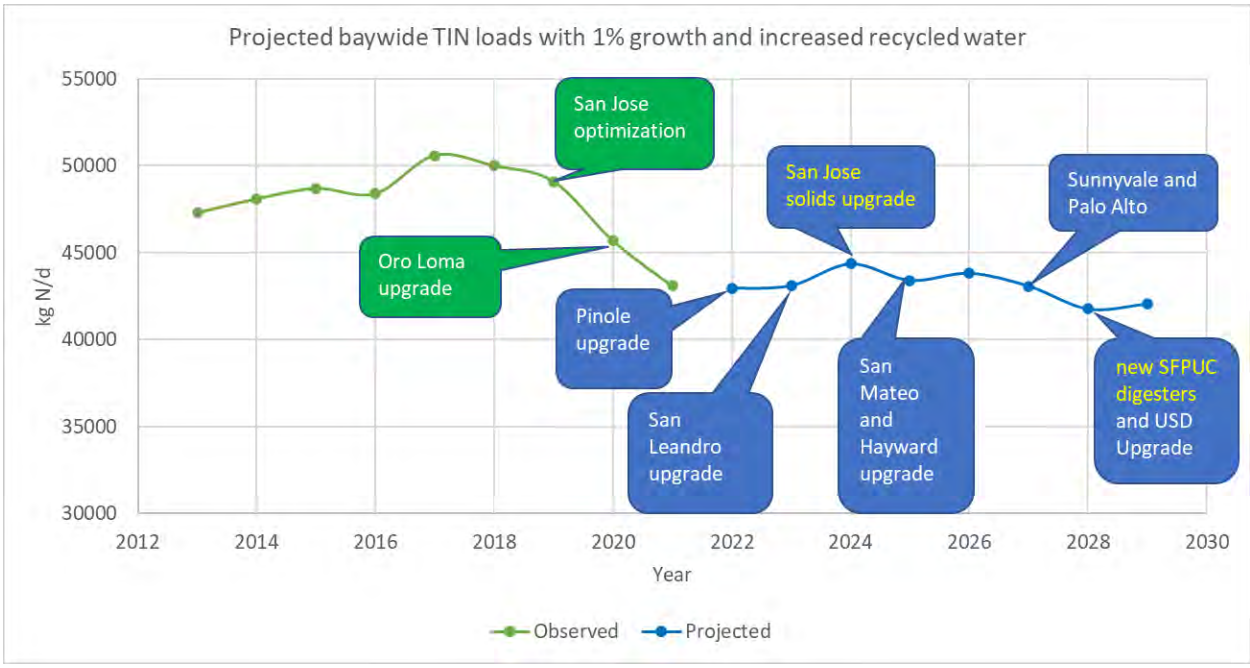
Negotiations for the Third Watershed Permit

TIN Load Projections

Since the adoption of the second Watershed Permit BACWA and the Regional Water Board have been meeting regularly to discuss the key tenets of the third Watershed Permit, which will be reissued in 2024 and will have a five-year term (through 2029). In these discussions, BACWA is represented by BACWA staff, as well as the Nutrient Strategy Team (NST). The NST is a group made up of volunteers from member agencies who provide diverse perspectives and make sure their agencies' interests are reflected in the negotiations.

The Regional Water Board requested information regarding agencies' plans that will impact nutrient loads to the Bay. BACWA surveyed its members and developed the figure below to illustrate historical and projected TIN loads. The green line illustrates the historical TIN data that has been presented in BACWA's Group Annual Reports. The blue line is a projection of nutrient loads in the next permit term, incorporating:

- 1% annual regional population growth, consistent with Plan Bay Area 2050
- TIN load reductions via recycled water, based on preliminary information obtained from the Recycled Water Evaluation being conducted in compliance with the Nutrient Watershed Permit
- Decrease in TIN due to early actor projects which will be implemented over the current and next permit term, as reported above
- Increase in TIN due to anticipated changes in solids handling, as reported above



The figure does not account for new or expanded organics diversion projects, which are uncertain in scope and timing. It also does not account for the inherent variability in the data. Recent analysis has shown that for individual agencies, variability in the data often results in larger year to year TIN load differences than explicable factors. However, this variability tends to be lessened when averaged over time, and when multiple agencies' loads are aggregated together.

Points of Agreement with the Regional Water Board

In previous discussions, BACWA's NST and the Regional Water Board have agreed on the following concepts in the third Watershed Permit:

- **A Baywide load cap will be established using an antidegradation rationale.** The antidegradation rationale will be used because there is not a current known nutrient-related impairment in the Bay, but the Regional Water Board does not want to wait until conditions worsen before capping nutrient loads.
- **Individual agencies will have agency-specific conditional limits**. Agencies will not be deemed out of compliance unless the Baywide cap is exceeded.
- **The Baywide cap and individual agency limits will be implemented based on dry season TIN loads.** The science team has agreed that the dry season (May through September) reflects the most ecologically sensitive time period, as nutrients are flushed out of the estuary more quickly during the wet season.
- **All agencies will be below their individual limits in 2024** – The limits will be crafted such that when the third Watershed Permit is adopted, no agency will have already exceeded its limit.
- **Nutrient reduction should be integral in long term regional planning** – Because there is not a current impairment in the Bay and because nutrient loading is not rising, our region has time to carefully strategize how to incorporate nutrient reduction into long term planning. The overarching goal is to advance nutrient removal while avoiding unintended consequences, and while balancing competing priorities. The third Watershed Permit should also be crafted to incentivize early actors and multi-benefit projects.
- **Future caps will be informed by the science** – There is not currently a finding of impairment in the Bay. However, SFEI is in the process of developing an assessment framework that will serve as a decision-making tool to identify any future impairment. The load caps and limits established in the third Watershed Permit may be revised in the future based on results of scientific studies.

Points for further negotiation with the Regional Water Board

Several elements of the third Watershed Permit still need to be established. Key outstanding issues that will be addressed at future meetings with the Regional Water Board include the following:

- **How to establish the Baywide cap and individual agency limits** – The second Watershed Permit identified a baseline based on the maximum average dry season from 2014 though 2017, then established planning level targets for each agency by adding 15 percent to this baseline. The Regional Water Board's intention was to consider using these planning level targets as load caps in the third Watershed Permit. However, as of 2022, several agencies have already exceeded their planning level targets, largely due to the inherent variability in their data.

BACWA contracted with a consultant team with the goal of establishing a statistically defensible baseline that incorporates the variability in the data. A proposal using the Upper Tolerance Limit of the historical data was selected, and proposed to the Regional Water Board as an alternative baseline. The Regional Water Board is reviewing the proposal and we will continue to discuss this method at future meetings.

- **How compliance will be calculated –** BACWA is proposing that compliance be calculated as a 3-year rolling average, to ensure that given the long time scale of nutrient reduction implementation, any observed increases in TIN beyond the baseline are real and not due to the inherent variability in the data. BACWA and the Regional Water Board will continue to discuss an appropriate averaging period as part of the larger discussion related to load caps.

- **How to incentivize early actors –** BACWA is requesting that early actors be identified in the third Watershed permit. If further nutrient load reductions are required in the future, the agencies who are designated as early actors would continue to be the last in line to be asked to implement reductions, as memorialized in the Fact Sheet language in the second Watershed Permit (pg F-16). Ideally, no further reductions would be required for the lifetime of the early actors' project.

  The Regional Water Board has responded that by implementing early actions, early actors' TIN discharges will be sufficiently below baseline loads that they would not be at risk of exceeding their limit, at least through the term of the third Watershed Permit. Several early actor agencies are concerned that population growth or projects relating to organics diversion/solids handling will consume that load difference in less than 30 years. Potentially, early actors who would exceed their limits during the third permit term would be handled differently in the permit than agencies who would exceed their limit after the third permit term but before the lifetime of their project. BACWA has reached out to early actors to determine which, if any, are projected to exceed proposed limits during the 5-year term of the third Watershed Permit so that the language in the Watershed Permit can best protect those agencies from being deemed out of compliance.

- **How to incentivize multi-benefit projects -** BACWA and the Regional Water Board have agreed that nature-based projects should receive a fixed nutrient removal credit, and have also discussed the merits of using fixed nutrient removal credits for recycled water projects. Future meetings will address language to capture these concepts in the Watershed Permit.

- **How small agencies should be incorporated in the Watershed Permit -** It is often not cost effective for a small agency with *de minimis* TIN loads to the SF Bay to implement nutrient removal. However, there is concern about fairness – that the costs of nutrient reduction should not only be borne by the ratepayers of larger agencies.

- **Accommodation of growth** – BACWA has requested the use of a growth buffer on top of the individual limits or Baywide cap so that agencies in the process of implementing long-term

nutrient reductions are not penalized if they exceed their limit. The Regional Water Board explained that it is possible to allow extended time frames for project implementation without using growth buffers, and that the use of growth buffers is also not consistent with the antidegradation approach. BACWA is gathering TIN growth projections from members so that the Watershed Permit can be crafted to protect agencies who are concerned they will exceed their limits while implementing long-term nutrient reduction projects.

- **Consequences for exceeding Baywide cap and/or individual agency limit** – The Regional Water Board has stated that an agency would only be deemed to be out of compliance if all of the following are true:
    - The Baywide cap is exceeded
    - The agency's individual limit is exceeded
    - The agency is not already moving forward with planning and implementation of a nutrient removal project

  The Regional Water Board has said that it plans to exercise its enforcement discretion to avoid penalizing agencies for whom the first two of the above bullets are true, but have demonstrated that they are proceeding with nutrient removal planning and implementation. BACWA and the Regional Water Board will discuss language to memorialize this intent in the Watershed Permit.

  For agencies who exceed their limit while the Baywide cap is not exceeded, an action plan would be required.

- **How to avoid disincentivizing organic diversion projects** - While several agencies that don't currently have organics diversion programs are considering implementing one, few agencies have fully planned details of their projects, including potential TIN loads increases that would be associated with these projects. Consequently, to support the state's organic diversion goals and avoid disincentivizing organics diversion, the load caps in the third Watershed Permit will need to be carefully crafted to accommodate these projects.

- **Support for the Science** – BACWA and the Regional Water Board will begin discussions this fall to identify the level of funding for the science that will be required in the third watershed permit. This level should be tied to what is needed to sustain an ongoing nutrient monitoring and modeling program.

BACWA will continue to meet with the Regional Water Board to come to an agreement on these issues. If you or your agency staff would like to participate in NST meetings, please email BACWA Executive Director Lorien Fono at lfono@bacwa.org.

Planning Subcommittee Meeting No. 68
August 3, 2022
9:30 am – 12:00 pm
Teleconference
Chair: Eric Dunlavey
Meeting Notes

Attendees: Eric Dunlavey, Dave Senn, Richard Looker, Ian Wren, Robert Schlipf, Lorien Fono, Ariella Chelsky.

1. *Agenda Modifications*
   None. Prior to beginning the meeting there was a discussion about observed coloration in the Oakland estuary, and which entity is responsible for investigations.

2. *Review Outstanding Action items*

   - Finalize public-facing NMS program summary - ongoing
   - Distribute SC meeting agenda - completed

3. Science Program updates:

Staffing

The current field team is Ari, Lilia, Dan, Ken (at Stanford), Melissa (10% time) and Martha (20% time). Martin Volaric, who has experience with high-frequency data at Stanford, will work on the program as a contractor at 75-100% time to oversee the mooring work. He is based in Vermont but will make occasional trips to the Bay area. Kristin recently left SFEI.

The modeling team is Allie, Farid, Pradeep (80% time) and Rusty (10% time). Sienna recently left but will be continuing part time. We may need to ramp up staffing resources depending on funding.

For program management, Jen, Ruth, Ari, and Melissa are involved. A program manager role was envisioned in this year's budget, but no effort has yet been made to recruit for that position.

Funding

Shoal mapping SEP funding at $184,700 was received in July 2022. Two thirds will be allocated to USGS, and one third to SFEI staff for synthesis work. Sediment transport SEP funding is expected, pending discussions with the RMP, some of which would go to PCB work through the RMP (two thirds internal, and one third collaborators). In general

there is some degree of sediment modeling work that benefits sediment transport, PCB, and nutrient projects.
The nutrient team is putting together a proposal jointly with RMP to EPA's Water Quality improvement Fund (WQIF) grant program. The major theme for the proposal is the development of multi-benefit decision tools, and would include a request for $1.5M in funds relevant to NMS work. There was a discussion about how the work funded by the SEPs and potential WQIF grant are complimentary to each other. It is preferential to support external collaborators with WQIF funds since EPA places limits on overhead. For example, Craig, Rusty, and Pradip would be supported by WQIF.

There is an opportunity to apply for an internal USGS proposal (nat'l competitive award) that would support a HAB postdoc, with a focus on the San Francisco Bay. The Science Team will work with Brian Bergamaschi on a project description.

Information on NMS reserves will be available in September.

Projects

Assessment Framework LSB-slough-DO- The draft Tetra Tech VPA report is out for comment. The team is preparing for the Aug 17 expert meeting. BACWA provided comments on both the draft VPA document as well as charge questions for the expert meeting. Stakeholders are not invited to the meeting, but there will be a subsequent meeting where stakeholders will be requested to join and present their viewpoints. There was a discussion about the pros and cons of allowing stakeholders to listen in on expert workgroup meetings both to learn from the experts and to be on hand to answer any questions. The 8/17 will result in a report out or meeting summary.

Modeling – The goal for the mid-October meeting is to give the group a sense of how well the model is performing. A third MAG meeting will be planned for the 1st quarter of 2023 to incorporate feedback. A model validation/sensitivity analysis is ongoing, with a deliverable expected in mid-sept. A model application deliverable is expected in late fall.

Shoal data synthesis – A draft synthesis report will be available prior to the next Steering Committing meeting.

High-level synthesis – A 5-page State of the science report and program summary will be available in early September.

Trends – The team is targeting mechanisms explaining increase/decrease in indicators. They are finalizing the draft report, and then will use it as part of the deep subtidal AF work.

HABs synthesis – A full draft report is expected in about a month. They will reconvene the expert team.

AF- Deep Subtidal – SFEI is beginning to recruit expert workgroup and planning a Sept/Oct expert meeting. The goal is to have a sketch of the workplan for AF2.0 to Water Board by November 2022.

Coastal Impacts – A status meeting is planned in late August/early September.

Mooring work and data QA/QC is also ongoing. The last mussel collection has wrapped up and the team will look for more funding for that work.

South Bay Biogeochemical field study – A technical report is in development and is expected this fall.

4. *Priority Updates*

Upcoming Schedule: PS: Sep 7, 2022, October 5, 2022; SC: Oct 21, 2022. The November PSC meeting will be canceled.

BACWA and the Water Board held a workshop on 7/28 to discuss the 3rd Watershed Permit. Lorien shared a memo with the group outlining factors that will impact nutrient loads over the next permit term.

Ian is working with Melissa to develop the proposal for the WQIF grant. They are reaching out to stakeholder partners to gather letters of support. The proposed budget request was initially $3.4M, but the goal is to keep it under $3M. Ian noted that SFEI is submitting other proposals for grant funding in addition to this one. A draft narrative will be available on August 29 for circulation.

5. *Discussion Topics*

There was a discussion about funding levels to support the science during the third watershed Permit. BACWA would like to use the assessment framework to dictate the level of science funding. Dave responded that the draft assessment framework expected this fall won't clarify baseline funding. Richard expects that the assessment framework will lay out options for the Water Board to decide how to proceed from a regulatory standpoint. The group agreed that this fall is a good time to plan for the NMS contribution that will be associated with the next permit.

6. *Action items:*

- Identify confirmed and potential funding and how they address needs in the science plan
- For September, agendize discussion of materials to present to BACWA Board
- Agendize discussion of stakeholder attendance at expert meetings

- Revise state of the science update

7. Parking lot/marina issues
    - Tour on USGS vessel

BACWA - BAAQMD
Implementation Workgroup
Meeting Summary

Date: July 18, 2022

Time: 3 – 5 PM

Location: MS Teams

Attendees: Victor Douglas, Carol Allen, Pamela Leong, Sanjeev Kamboj, and Jerry Bovee (BAAQMD); Lorien Fono (BACWA ED); Jason Nettleton (San Jose, BACWA AIR Committee Co-Chair); Lori Schectel (Central San); Jackie Zipkin (EBDA); Robert Schlipf (RWQCB); Courtney Mizutani (Mizutani Environmental); Sarah Deslauriers (Carollo)

Notes provided below are based on the discussion by agenda item.

1) **Introductions & Workgroup Objective**

We opened with introductions and by reviewing the objectives for the group.

Forum to facilitate a collaborative relationship to further our common goals related to:

- *Permit process*
- *Inspections*
- *Rule development*
- *Standard permit conditions*
- *Best available control technologies*
- *Balancing competing regulatory priorities*

2) **Overview of Previous Meeting: Decisions & Action Items**

BACWA to resend the POTW planning/design/construction process document submitted (already provided to BAAQMD) to explain the longer timeline associated with public projects.

Sanjeev to consider and confirm proposed dates for future meetings:

- Monday, October 17th
- Monday, January 30th
- Monday, April 17th

3) **Collaborative Fact-Finding: BACWA & Regional Water Board**

Robert provided several examples of collaboration between the Regional Water Quality Control Board (RWQCB or Regional Water Board) and BACWA. The Regional Water Board shared that it has observed that open communication and collaboration saves staff time for both the regulators and the regulated community. Robert provided examples where early communication allowed for collaborative discussions and scientific research to take place in support of developing regulatory requirements based on sound science.

4) Air Toxics: Intersection of State & BAAQMD Regulations

Sarah presented information on how BAAQMD Rules 2-5 and 11-18 intersect with State requirements under AB 617 (Criteria Air Pollutant and Air Toxics Reporting, CTR) and AB 2588 (Air Toxics Hot Spots Program and Emissions Inventory Criteria and Guidelines, EICG). While the implementation schedules for these regulations do not fully align, the timeline approved by

CARB for the statewide two-step process being performed by the waste sector (including POTWs) will include collection of data that will inform the current efforts for POTWs under BAAQMD Rule 11-18. BACWA to engage BAAQMD staff into that process (see item 5 below).

5) **Wastewater Sector Two-Step Process (EICG Section IX.H)**
The California Association of Sanitation Agencies (CASA) is spearheading the statewide effort to engage with the local Air Districts to 1) scan for and identify detectable compounds and 2) develop sampling and analysis protocols so that data collected across the state is suitable for use in quantifying the emissions of those compounds. The plan is to engage with Air Districts statewide beginning with BAAQMD, SCAQMD, SJVAPCD, San Diego APCD, and SMAQMD, then work with CAPCOA to perform outreach to the remaining Air Districts across the state. This process will require four to five years at an estimated cost of approximately $10 million. Working as a statewide effort (vs requiring individual sampling) will save time and responsibly utilize public funds by developing a shared database of emission factors reflecting geographic, process, and service area characteristics.

BAAQMD requested that Carol Allen, Jerry Bovee, Marco Hernandez, Brenda Cabral, and Pam Leong be involved in the CASA-CARB-Air District statewide effort. Jerry noted that Source Control staff should be involved from start to finish and to consider the guidelines BAAQMD has regarding how non-detects are handled as part of the discussions. This effort and the associated meetings will be separate from and in addition to this Implementation Workgroup.

Carol requested BAAQMD be involved in the selection of POTWs for field sampling. She also noted that BAAQMD is only looking at compounds with health effects values in Rule 2-5 (see Table 2-5-1) when performing the health risk assessments (HRAs) under Rule 11-18. Carol noted that BAAQMD plans to start working on HRAs for the POTWs with higher preliminary risk numbers as the Two-Step Process begins. There will be several opportunities for the facilities to review and comment during the Rule 11-18 HRA process, including the preliminary draft HRA prior to the release of the public draft.

6) Other Opportunities for Collaboration
Jason presented information on the South Bay Odor Study. BACWA would like to be engaged on efforts like this earlier in the process, providing impacted facilities the opportunity to contribute to BAAQMD's understanding of processes and emissions before presenting information to the public. Preliminary results of the South Bay Odor Study were presented along with preliminary thoughts on mitigation measures to the facilities at the same time as the pubic. There is now concern that public expectations will not reflect realistic and meaningful mitigation measures. Jason noted that San Jose-Santa Clara Regional Wastewater Facility would like to provide input.

Jerry acknowledged that while BAAQMD wanted this study to be independent, the final draft report was expected at the end of July. BAAQMD would share the final draft report for BACWA's review prior to posting on the website (fall). Jerry stated there would be opportunities to work together to manage public perceptions going forward, and that the Odor Study could be used as a starting point for future collaboration on this work

PM 2.5 Local Risk Methodology Development is an Emission Inventory Group Project looking at health risk and mortality from PM2.5. Carol said in addition to looking at the methodology, the group would also be looking at how to include this methodology into rule development and new source review. Victor suggested that the impacted regulations could include Rule 11-18 and Regulation 6. BAAQMD is not yet engaging the public, though there are Advisory Council meetings where BACWA could participate. A white paper is anticipated to be finalized by the end of the year. It was suggested that Phil Martien (Assessment Inventory & Modeling) and

David Holstius (Planning & Climate Protection) be invited to the Implementation Workgroup meetings.

Victor acknowledged that Regulation 13 remains on hold and it is unlikely that there will be any development this year.

Sanjeev noted that there are staffing shortages at BAAQMD. Pam noted there is a management audit underway and they are unable to hire more staff in Engineering and it is a low priority at this time. She would like to better understand the project process at POTWs to help streamline the permitting process.

Pam noted that a retiree has been brought back to edit the Permit Handbook, as well as standard permit conditions and Sarah noted that BACWA engaged with BAAQMD regarding updates to standard permit conditions pre-pandemic. Sarah will provide BACWA's suggested edits to the Anaerobic Digestion (including flaring), Organic Waste Handling, and Co-Generation standard permit conditions. Pam stated that BAAQMD could share their updates for the regulated community to comment but they are working to get the Permit Handbook updated this year.

7) **Action Items**

a. BAAQMD (Sanjeev) to schedule quarterly 2-hour meetings for the next 12 months. BACWA proposed the following dates: October 17, 2022; January 30, 2023; April 17, 2023.

b. BACWA to engage BAAQMD in the statewide Two-Step Process. BAAQMD staff to be included in the process include Pam Leong, Carol Allen, Brenda Cabral, Jerry Bovee, and Marcos Hernandez. Other BAAQMD staff will be included as appropriate.

c. BAAQMD to include BACWA (specifically San Jose-Santa Clara RWF) in the Odor Study.

d. BACWA to provide standard permit conditions edits to Sanjeev. The standard permit conditions are currently being updated by BAAQMD so this is a timely contribution to that process.

e. BACWA to resend POTW planning process document per Sanjeev's request.

f. BAAQMD to include BACWA in PM 2.5 Local Risk Methodology Development. Pam to invite BACWA representatives to the next meeting.

DRAFT PROGRAM
BACWA ANNUAL TECHNICAL SEMINAR
Thursday September 8 - Orinda Watershed HQ
Friday September 9 - David Brower Center

Day	Time	Theme	Topic	Desired Outcomes
Thur	9:00 AM	**Welcome and Introductions**		
	9:05 AM	**BACWA Operational**	**Financial Review**	• Understanding of budget status • Input on future level of reserves given anticipated cash flow • Agree on dues increases, review nutrient surcharge calculations
	10:00 AM		**Strategic Planning**	• Review Strategic Plan • Review ED's performance plan in context of strategic plan
	10:30 AM		**BREAK**	
	10:45 AM	**Regulatory**	**Review and update of 2020 Strategic Plan**	• Receive update on what's on the regulatory horizon • Discuss how to deploy resources to respond to important regulatory initiatives • Queue up topics for discussion with the Water Board on Friday
	12:00 PM		**LUNCH BREAK**	
	1:00 PM	**AIR Issues**	**AIR and ACE Update**	• Rule development and engagement with BAAQMD • Discuss CASA 2-step process SOW for air toxics study - how does BACWA fit in?
	2:20 AM		**BREAK**	
	2:30 PM	**Nutrients**	**3rd Watershed Permit Negotiations**	• Reach internal consensus on negotiating positions • Plan for engagement with Water Board on Friday
	4:00 PM		**Adjorn**	

Day	Time	Theme	Topic	Desired Outcomes
Water Board joins				
	9:00 AM	**NMS Update**	**Update and Discussion**	• Discussion of Water Board's approach to address science gaps and funding for 3rd WSP • Progress on assessment framework • Interface with SCCWRP on Ocean modeling

10:30 AM		**BREAK**	
10:45 AM	**2nd Watershed Permit**	**Update and Discussion** • Status of NBS Study (Ian Wren, SFEI) • Group Annual Report and Status of Recycled Water Report (Mike Falk, HDR)	• Understanding of status and resolution of identified issues • Understanding of status and resolution of identified issues
12:00 PM		**LUNCH BREAK**	
1:00 PM	**3rd Watershed Permit**	**Update and Discussion**	• Understanding of Water Board and BACWA positions on key issues
2:20 PM		**BREAK**	
2:30 PM	**Regulatory Issues**	**Update and Discussion** • CECs and PFAS • Biosolids • Climate Change • SSS WDR • Hg/PCB Watershed Permit • Others	• Movement on statewide issues • Science needs to support Water Board's next steps • Water Board's next steps • Water Board's next steps • PCB monitoring frequency • Selenium, Toxicity, Chlorine BPA
3:30 PM		**Adjorn**	

Item 12 Recycled Water Updates

August 19, 2022

BACWA
BAY AREA
CLEAN WATER
AGENCIES

Estuary Blueprint

- Link to the newly updated Estuary Blueprint
- “In the Bay Area, local wastewater agencies work individually and through partnerships like the Bay Area Clean Water Agencies (BACWA) to implement strategic uses of recycled water, minimize its costs and maximize its benefits, and communicate a unified message about its complexities to the public.”

ACTION 18
RECYCLED WATER

Expand the use of recycled water.

Work with water agencies, municipalities, and stakeholders to reduce barriers to the broader use of recycled water. Support the use of the right water at the right time and in the right place.

GOALS

Living Resources · Resilience · Water · Stewardship

TASK 18-1

Share recycled water informational materials, resources, and program models among municipalities, wastewater agencies, and drinking water agencies.

MILESTONE
Platform for sharing resources.

COST ESTIMATE – $

TASK 18-2

Collaborate with the Bay Area Clean Water Agencies' Recycled Water Committee stakeholders and others to identify opportunities to expand incorporation of recycled water in local and regional water resources planning processes.

MILESTONE
Bay Area Clean Water Agencies Recycled Water Study finalized.

COST ESTIMATE – $$

TASK 18-3

Collaborate with the Bay Area Clean Water Agencies' Recycled Water Committee and others to convene stakeholders to identify opportunities for the broader use of recycled water, understand funding and planning gaps, and address regulatory and permitting constraints.

MILESTONE
Forum to discuss overcoming challenges to regional recycled water projects.

COST ESTIMATE – $

TASK 18-4

Evaluate reverse osmosis concentrate (ROC) management options to protect San Francisco Bay health and water quality while providing multiple stakeholder-driven benefits.

MILESTONE
Two to three semi-annual inter-agency discussions convened on the pathways to permitting ROC management.

COST ESTIMATE – $

Photo: Kelly Grow

Photo: Florence Low

Cost Estimate Key		
$ - Up to $100,000	$$ - Up to $1 million	$$$$ - Up to $100 million
	$$$ - Up to $10 million	$$$$$ - Over $100 million

Overview

Recycled water refers to water that is treated to potable or non-potable standards for a beneficial use. In the Bay Area, local wastewater agencies work individually and through partnerships like the Bay Area Clean Water Agencies (BACWA) to implement strategic uses of recycled water, minimize its costs and maximize its benefits, and communicate a unified message about its complexities to the public. Without strong cross-jurisdictional governance and management structures, approaches to managing recycled water can be inconsistent and inefficient.

Updates and Emerging Issues

Since 2016, this Action has been revised to include more measurable and achievable milestones. Additionally, advanced treatment of recycled water via reverse osmosis produces a concentrate, the management of which needs to be considered in planning efforts. Lastly, a deeper understanding of the connection between recycled water and estuarine health needs to be established in order to secure more public and elected buy-in.

Climate Change Considerations

This Action addresses water supply issues that will be exacerbated by climate change. As climate change prolongs droughts and the public practices increased water efficiency, recycled water faces the unique challenge of unpredictable supply and competition that affects industries such as landscaping and refineries.

Equity Considerations

Much of the Bay Area's wastewater treatment infrastructure lies along the shoreline, as well as in or near frontline communities. Regional resilience planning efforts will need to consider pollution risks for these communities as the shoreline infrastructure adapts to rising seas.

Connections to Other Actions

The challenge posed by reverse osmosis concentrate management connects this Action to:

A20: Nutrients

A21: Emerging Contaminants

A22: Health Risks of Contaminants

This Action is also connected to other water supply Actions, such as:

A16: Freshwater Flows

A17: Water Conservation

A19: Stormwater Management

Recycled Water Updates

1. Recycled Water Usage Trends

2. Update on Direct Potable Reuse (DPR) Regulations

3. Update on Onsite Non-potable Reuse Regulations

1. Recycled Water Usage Trends

- Monthly volumes of influent, effluent, and recycled water must be reported annually to Geotracker per a 2019 State Water Board Order
- Allows comparison goal in State's Recycled Water Policy: 2.5 MAF by 2030
- 2019-2021 reporting years now available
- Highlights from State Water Board informational item on 8/2/2022
  - Volumetric Annual Reporting Webpage
  - Full Presentation (Source of next 5 slides)

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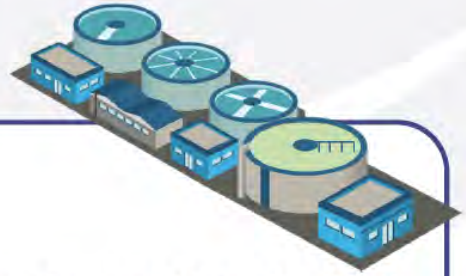
Wastewater Treatment Plants



267

Wastewater Treatment Plants that produce recycled water

20

Recycled Water Producers*

708 out 752 Facilities Reporting

* These facilities do not receive raw wastewater

2019 - 2021 Volume Comparison

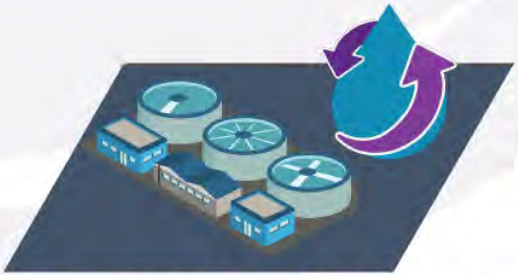
Acre-Feet per Year (AFY)

Influent

3.68 M | 3.43 M | 3.37 M

Effluent

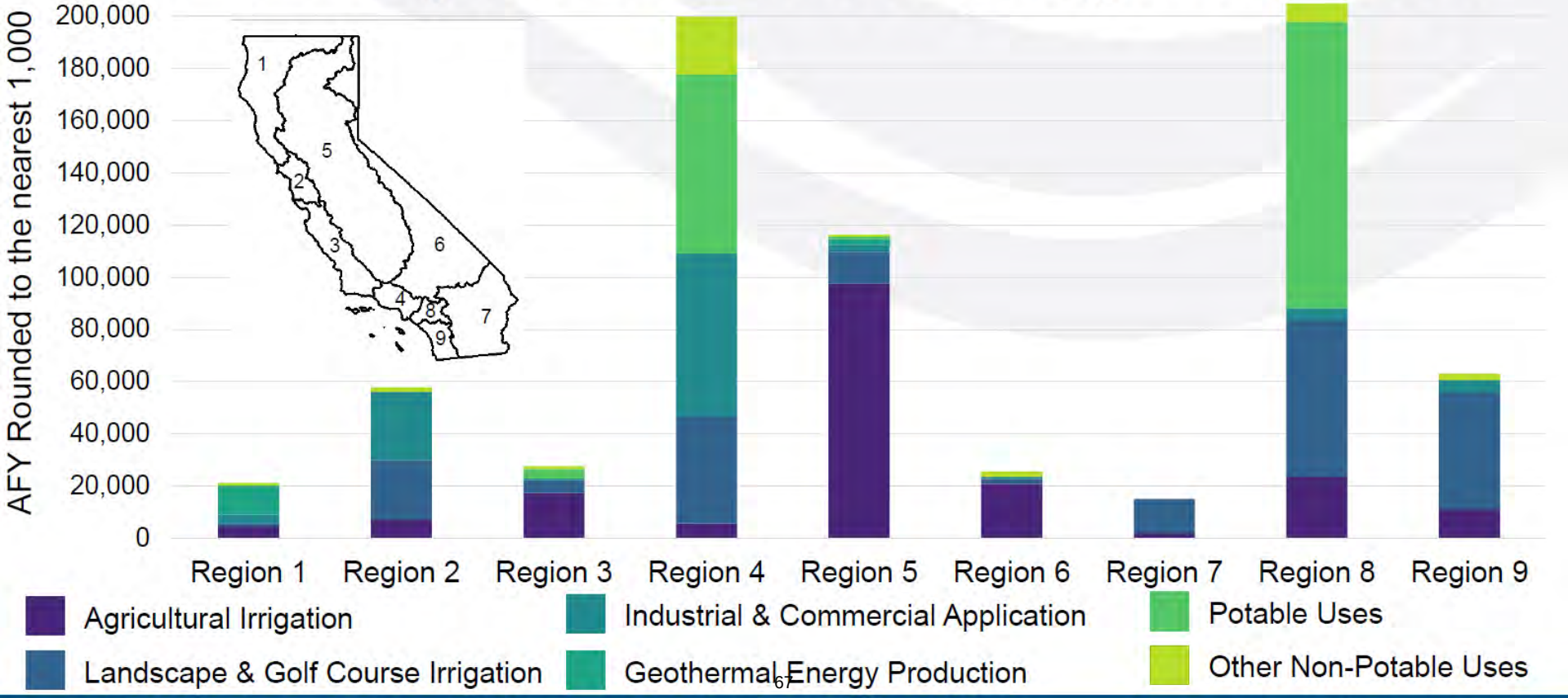
2.69 M | 2.35 M | 2.28 M



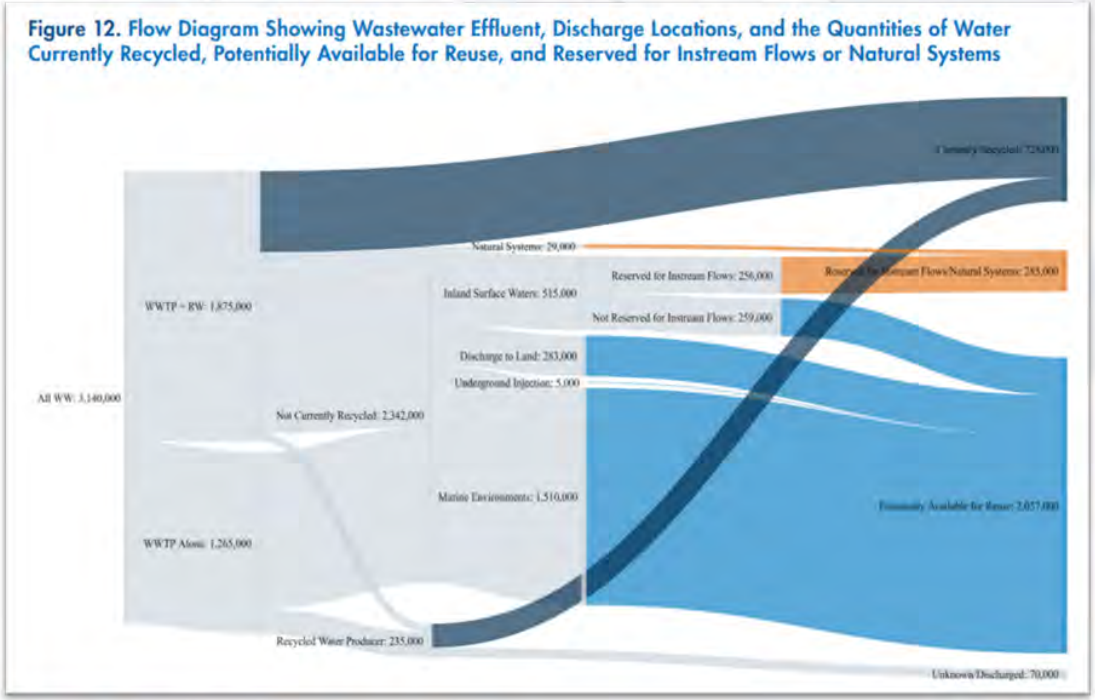
Recycled Water

686 K | 729 K | 732 K

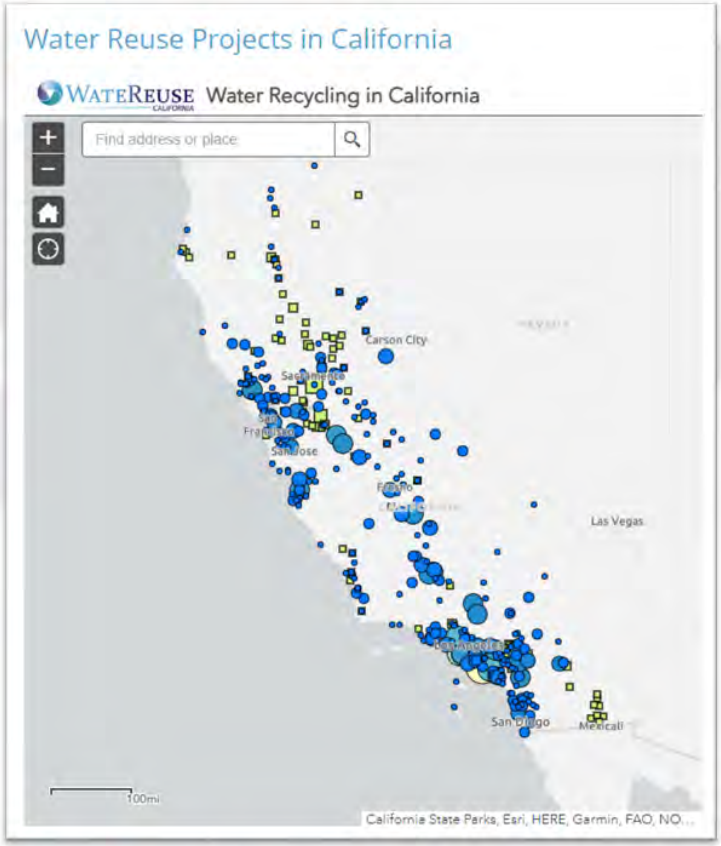
2021 Recycled Water Use, Regional Board



Open Data

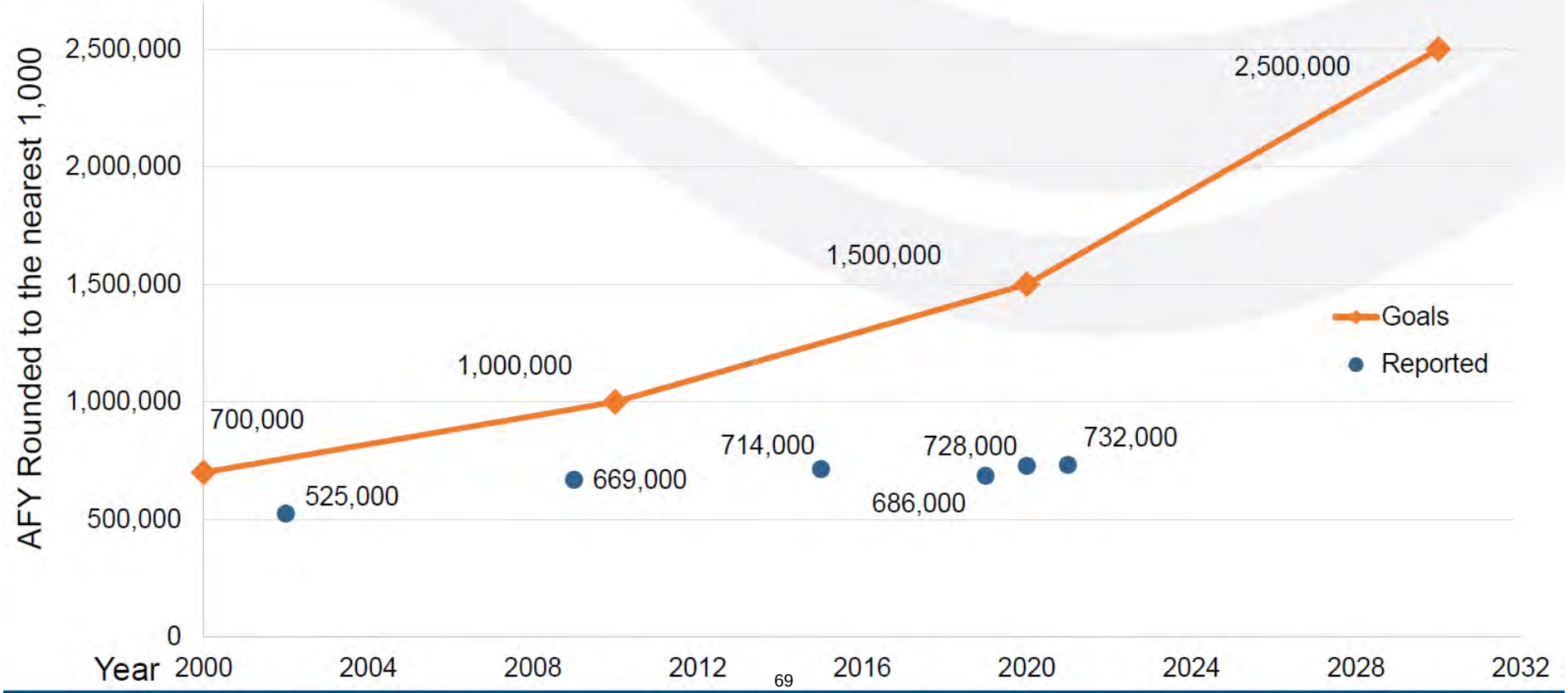


Pacific Institute | pacinst.org
The Untapped Potential of California's Urban Water Supply: Water Efficiency, Water Reuse, and Stormwater Capture



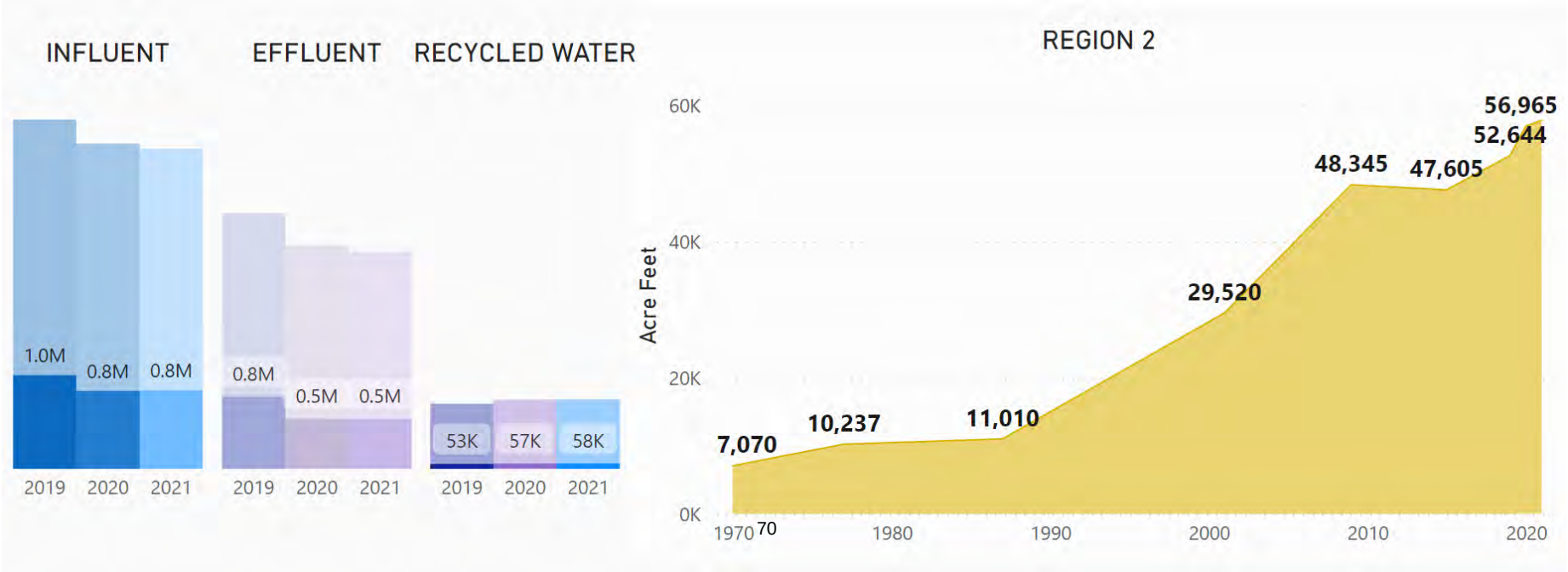
WateReuse | watereuse.org
Water Reuse Projects in California

Re-Evaluating Goals

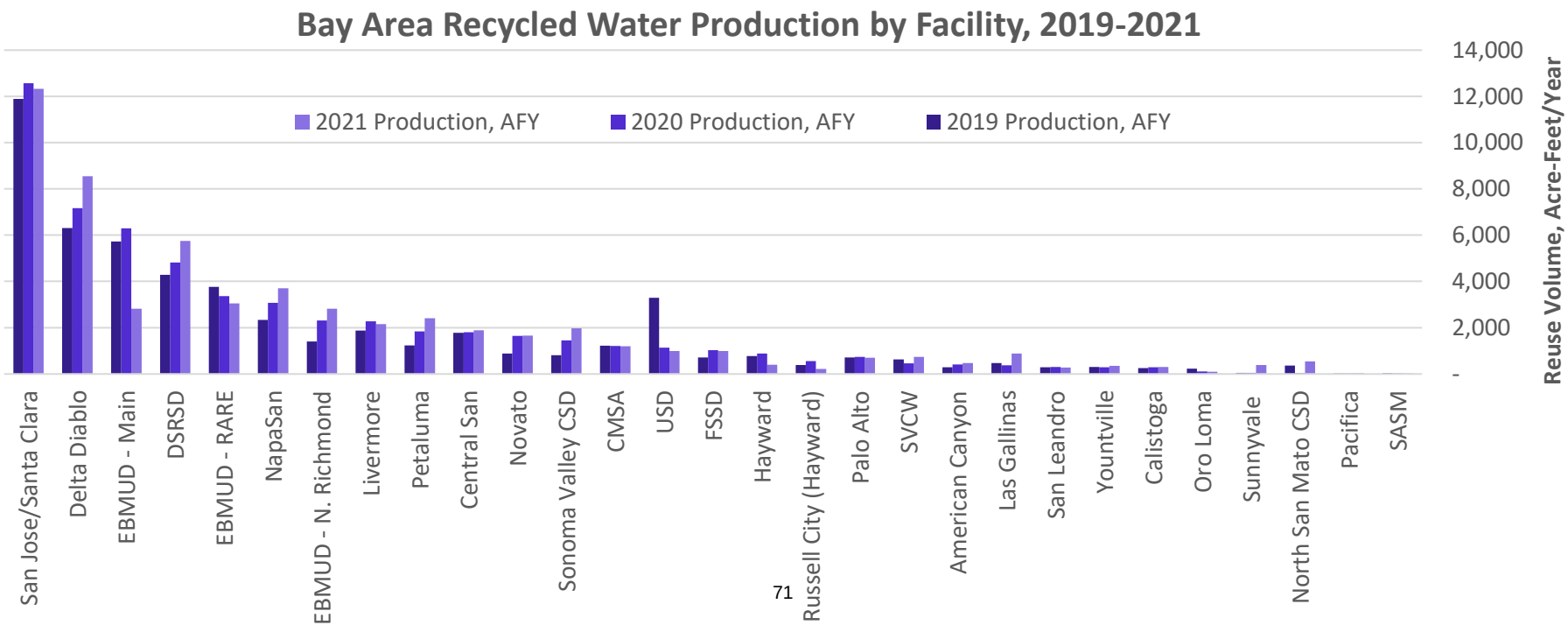


Region 2 Usage Trends

Source: [State Water Board Volumetric Annual Report Interactive Map]

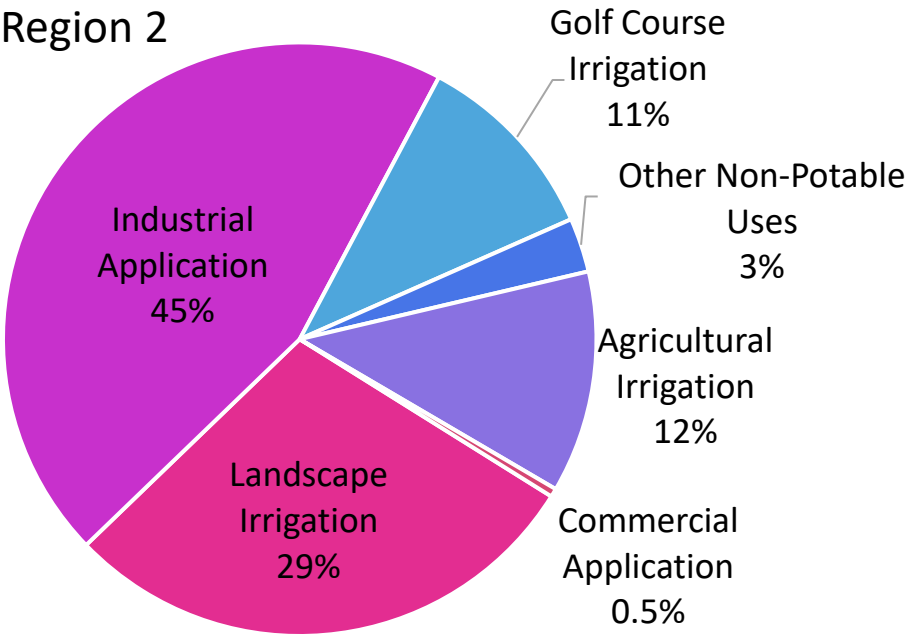


Region 2 Usage Trends



Region 2 Usage Trends

2021 Usage by Category in Region 2



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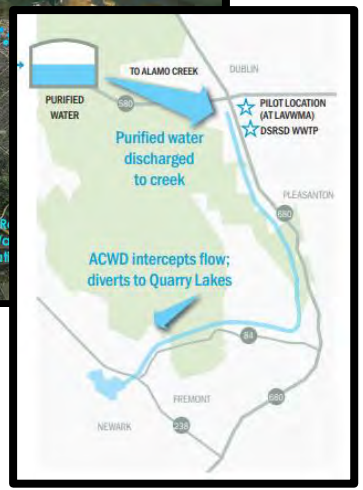
BACWA BAY AREA CLEAN WATER AGENCIES

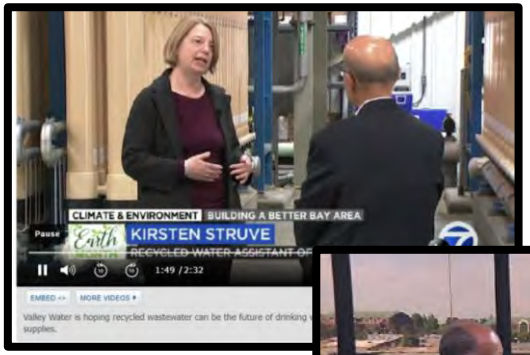
2. Update on DPR Regulations

Potable Reuse Exploratory Plan (PREP) among Peninsula agencies



Regional Purified Water Pilot Project DSRSD - ACWD

ABC7 Report on Potable Reuse at Valley Water



KTVU Report on Water Recycling at Central San

MARIN WATER

Strategic Water Supply Assessment

2. Update on DPR Regulations

- **2010:** Beginnings of Direct Potable Reuse (DPR) regulations, beginning with Expert Panel and feasibility assessment (SB 918)
- 2014: Final Groundwater Recharge Regulations
- **2016:** Expert Panel confirms DPR is feasible
- **2017:** AB 475 mandates development of DPR regulations by December 31, 2023
- 2018: Final Surface Water Augmentation Regulations
- **2021:** Public comment period on framework for DPR
  State Water Board provided draft criteria for Expert Panel review
- **2022:** Expert Panel provided review of draft criteria
  State Water Board provided a response
- **2023:** DDW will develop draft regulatory package
  Public comment and public hearing
  State Water Board adoption

Credit:

Trussell
CREATING THE FUTURE OF WATER

BACWA BAY AREA CLEAN WATER AGENCIES

2. Update on DPR Regulations

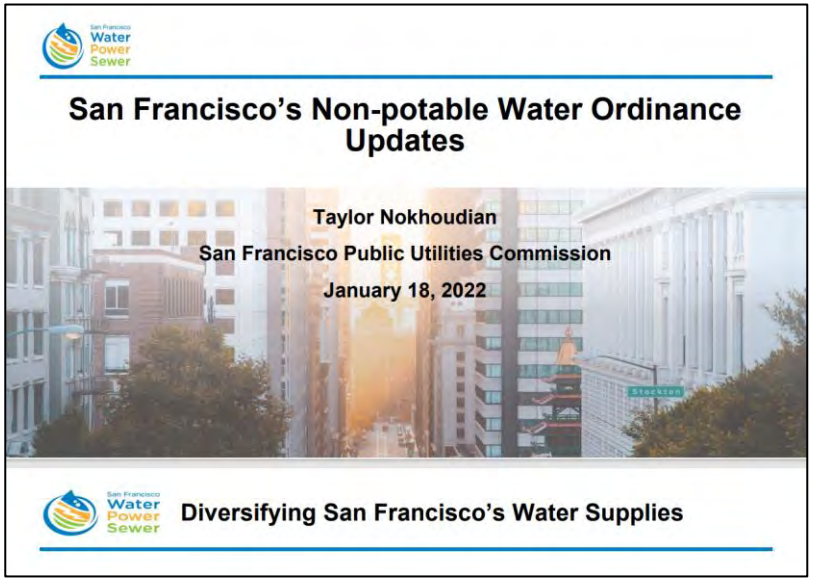
- Expert Panel and DDW are aligned on many topics
- Potential topics of interest for BACWA:
  - Expert Panel and DDW are not aligned on level of conservatism for pathogen log reduction criteria
  - Expert Panel and DDW are not aligned on the need for nutrient removal
  - Enhanced source control and sewershed monitoring

3. Update on Onsite Reuse Regulations

- SB 966 (2018) - Requires State Water Board, CA Building Standards Commission, and CA Dept of Housing & Community Development to adopt regulations for non-potable onsite treatment and reuse by December 1, 2022
- Regulations are for multifamily residential, commercial, and mixed-use buildings
- Sources of water include rainwater, stormwater, graywater, and blackwater

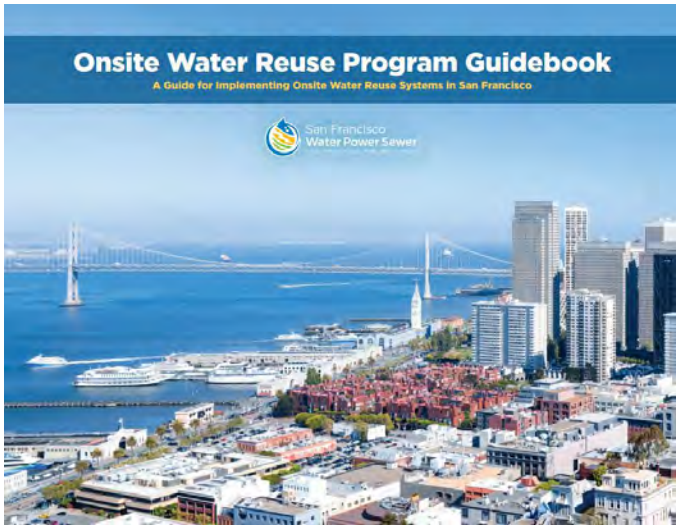
3. Update on Onsite Reuse Regulations

SFPUC's new (2021) program is a model for statewide expansion



Presentation to BACWA Recycled Water Committee

SFPUC Guidebook



3. Update on Onsite Reuse Regulations

- SWRCB will adopt standards for treatment trains
- Local agencies would run programs and issue permits
- SWRCB workshop on 8/1/2022 - Presentation Slides
  - Rulemaking is starting soon
  - “Criteria is 80% Complete”
- Compared to Status Quo:
  - Stormwater: new, more stringent treatment requirements
  - Wastewater: less stringent than existing Title 22 non-potable standards

3. Update on Onsite Reuse Regulations

- Proposed treatment trains for blackwater are MBR – UV – Free Chlorine with online turbidity monitoring
- BACWA may choose to comment on draft regulations
  - Need for coordination / roles and responsibilities

BACWA BAY AREA CLEAN WATER AGENCIES

BACWA Roundtable Discussion

Adapting to Sea Level Rise,

Extreme Precipitation, and Flooding

August 23, 2022, 10 AM – 12 PM

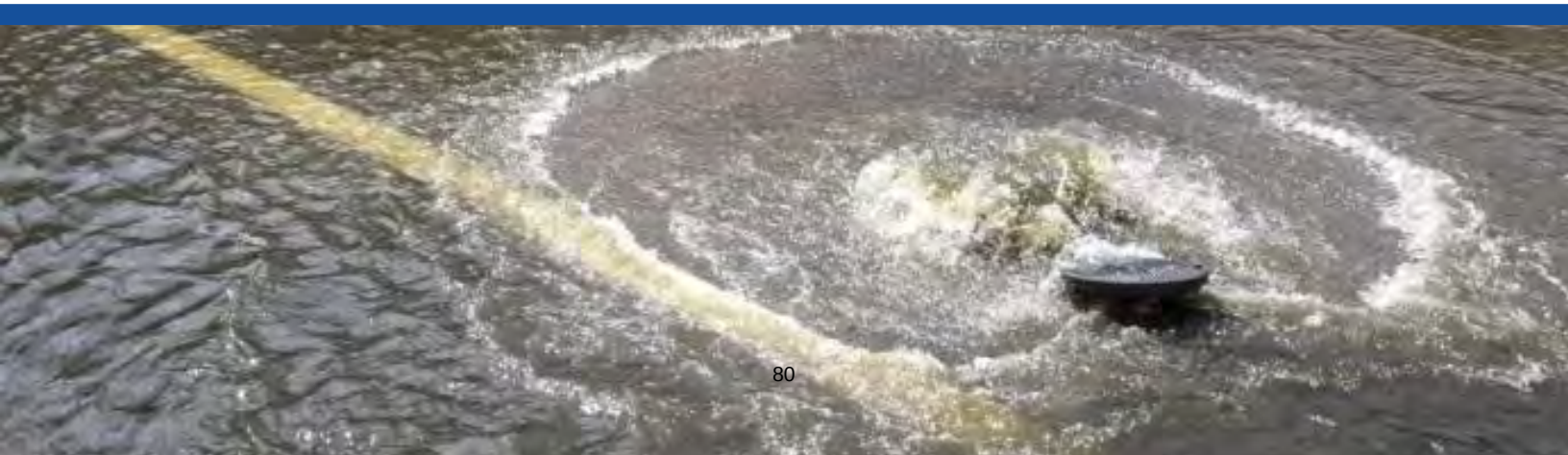
Join your fellow BACWA agencies for this **virtual members-only roundtable discussion**. Please plan to share:

- **Partners -** Who are you collaborating with?
- **Process -** What does the adaptation planning process look like at your agency? Where are you finding useful guidance? What are you struggling with?
- **Scenarios -** What sea level rise and extreme precipitation scenarios is your agency assuming for capital planning?
- **Support** - For effective planning, what support do you need from regulators, state & local government, and organizations like BACWA and BayCAN?

Registration Link:
https://us06web.zoom.us/meeting/register/tZAude-vpjMqEtSMpKL7nR8PlDkfawiJ4khx

Participation by Mentimeter is also encouraged!
https://www.mentimeter.com/integrations/zoom

Mentimeter



Representative Role	Description	Meeting frequency	Representatives
a. RMP Technical Committee	The Technical Review Committee provides oversight of the technical content and quality of scientific investigations conducted for the RMP and serves as an advisory body and critical link for recommendations that emanate from Workgroups and Strategy Teams and advance to the Steering Committee.	4x per year	Mary Lou Esparza, Yuyun Shang, Samantha Engelage
b. RMP Steering Committee	The Steering Committee is the decision-making body for the RMP. All recommendations and information from various groups in the RMP governance structure ultimately flow to the Steering Committee to support its decision-making.	4x per year	Karin North; Amanda Roa; Eric Dunlavey
c. Summit Partners	Meets 2x year with CASA/CWEA/CVCWA/SCAP to share information and collaborate on key issues. BACWA ED and Chair are representatives.	2x per year	Lorien Fono; Amit Mutsuddy
d. ASC/SFEI	BACWA is signatory to ASC with 3 Board positions. Reps should bring diversity of strengths to best serve ASC Board.	4x per year	Lorien Fono; 2 **Board members needed**
e. Nutrient Governance Steering Committee	2 voting members represent POTW community to guide NMS science plan.	3-4x per year	Eric Dunlavey, **1 member needed**; alternates: Lori Schectel, Jackie Zipkin
e.i Nutrient Planning Subgroup	1 voting member represents POTW community to informally guide NMS process between Steering Committee meetings.	1x per month	Eric Dunlavey
f. SWRCB Nutrient SAG	Representative on statewide issues pertaining to nutrients, with consideration of those that may impact R2.	Occasional	Lorien Fono
h. BAIRWMP	Represents POTW community in regional proposals. Collaborates with other functional areas. Serves on project selection committee. Reports to BACWA RW committee.	1x per month	Cheryl Munoz; Florence Wedington; Lorien Fono
~~i. NACWA Emerging Contaminants~~	~~Report to BACWA Board.~~		~~Karin North; Melody LaBella~~
j. CASA State Legislative Committee	Report to BACWA Board.	1x per month	Lori Schectel
k. CASA Regulatory Workgroup	Report to BACWA Board.	1x per month	Lorien Fono; Mary Cousins
l. RMP Microplastics Liaison	Represents POTW community in microplastics planning. Report to BACWA Board.		Artem Dyachenko
m. Bay Area Regional Reliability Project	Represents POTW community in water reliability planning. Report to BACWA Board.	Occasional	**1 rep needed**
~~n. WateReuse Working Group~~			~~Cheryl Munoz~~

o. San Francisco Estuary Partnership	The Implementation Committee works with the SFEP Director to coordinate the implementation of the Estuary Blueprint, helps to set priorities for the Partnership's work, and approves annual work plans and budgets.	4x per year	Lorien Fono; **1 alternate needed**
p. CPSC Policy Education Advisory Committee	Attend meetings and report to BAPPG and/or BACWA Board.		Colleen Henry
q. California Ocean Protection Council	Attend meetings and report to BACWA Board.	Occasional	Lorien Fono
r. Countywide Water Reuse Master Plan	Attend meetings and report to BACWA Board.		Karin North, Pedro Hernandez
s. CHARG - Coastal Hazards Adaptation Resiliency Group	Attend meetings and report to BACWA Board.		Jackie Zipkin
t. California Water Quality Monitoring Council	Serves as Council member. Report to BACWA Board.	4x per year	Lorien Fono

Proposed new roles: CASA Collection Systems, CASA Communications

Bay Area Chemical Consortium

Annual Meeting

August 22, 2022

1. **Introductions**
2. **Each participant to introduce themselves.**
3. **Summary of FY22 Bid**

   a) Number of chemical bids: 11

   b) Number of agency participants: 62

   c) Agency-Chemical bid combination: 191

   d) Total cost: $72,366 ($30,000 is for BACC Legal Reserve)

   e) Participation fee: $378.88

4. **Discussion of FY22 chemical bidding: what worked, what didn't work so well, and what should be do differently next year?**

5. **Issues with chemical vendors awarded bid for FY22**

a) KAAM \ Aqueous Ammonia in Sacramento, South Bay and Marina Sonoma Napa regions
b) Univar service issues

6. **Potential changes in bidding requirement**

a) How to encourage competition
b) Bid language to address problems with suppliers
c) Specify the documents that vendor is required to submit. A Named and Numbered list to match the selection rubric.

7. **Proposed schedule for FY 2023-2024 bid:**

a) Survey to determine what chemicals to bid on – Early September 2022
b) BACC Agencies complete and submit worksheets – October \ November
c) Draft bid documents prepared and submitted to members for review – Dec 2022
d) Bid documents finished and advertised for bidding, bid live – late Jan 2023
e) Bid opening – late Feb 2023
f) Bid recommendations completed and circulated – mid March 2023
g) Annual wrap-up meeting – August 2023

Recycled Water Committee –
Report to BACWA Board

Recycled Water Committee Meeting on: 7/19/2022
Executive Board Meeting Date: 8/19/2022
Committee Chairs: Stefanie Olson, Reena Thomas

Committee Request for Board Action: None

Detailed notes from meetings are posted online.
41 attendees (all participating remotely) representing 12 member agencies

Regional Recycled Water Evaluation Update

Mike Falk (HDR) provided a brief update on the progress of the Recycled Water Evaluation that is being conducted in compliance with the 2nd Nutrient Watershed Permit. Agencies should plan to review draft reports later this summer. The project team at HDR and Woodard & Curran would be interested in feedback on ways to present cost information. Costs are expected to be high, and the report does not capture the multiple benefits of recycled water projects (only the nutrient removal benefit). The annual update required by the Nutrient Watershed Permit was submitted to the Regional Water Board in July. The final report is due by July 1, 2023.

North Bay Water Reuse Program Update

Chuck Weir (North Bay Water Reuse Authority or NBWRA) and Rene Guillen (Brown and Caldwell) provided an update on the North Bay Water Reuse Program (NBWRP). The presentation included the following key points:

- NBWRP was formed in 2002 to facilitate state and federal funding of North Bay recycled water projects. The group facilitates administrative cost sharing. Sonoma Water has served as a "champion" agency and lead administrator.
- Phase 1 projects were completed this year, with a capacity of about 5,400 AFY. Phase 2 program is already underway – planning, engineering, and environmental analysis is complete. When completed, Phase 2 will provide an additional approximately 5,400 AFY of additional capacity. The City of American Canyon and City of Petaluma have started to implement some of the distribution system expansions that are included as part of Phase 2.
- The NBWRA has benefits beyond recycled water funding, because it facilitates cooperation among North Bay water and wastewater agencies. NBWRA envisions a long-term focus on broader resiliency planning efforts, including potable reuse, coordinated drought response, and sea level rise adaptation.

Update on Direct Potable Reuse Criteria

Anya Kaufmann (Trussell) provided an update on the DDW Expert Panel findings on draft Direct Potable Reuse Criteria and DDW Response, noting areas with alignment or non-alignment between DDW and the Expert Panel. Example areas where there is not complete alignment between DDW and the Expert Panel are the level of conservatism for pathogen log reduction criteria; source control; and optimization of treatment plants upstream of advanced treatment. DDW will be preparing the draft potable reuse regulations between now and 2023, which means this is a good time for members to contact DDW to share their concerns (if any).

Roundtable Discussion on Recycled Water Fill Stations

Participants discussed the benefits and challenges of operating residential recycled water fill stations. Agencies that are operating residential fill stations are noted in the 2021 truck fill guide update and Google map. Delta Diablo and Redwood City noted that their fill stations are currently closed, but they are considering re-opening them. The Town of Windsor recently opened a residential fill station (more information). Participants discussed the significant effort involved to run the fill stations, compared to the amount of water that can be distributed. Several agencies, including Central San, Sonoma Water, and Palo Alto, used a Portalogic system for the fill stations, which is helpful for automating the filling stations and creating data for program administration (including billing).

Site Supervisor Training Update

A subcommittee is moving forward with planning for a site supervisor training video. The BACWA Executive Board recently approved a video editing contract. Committee members are aiming to collect video footage in July and August, and welcome contributions from the Recycled Water Committee.

Funding Updates (Sachi Itagaki, Kennedy Jenks)

- There will be an informational item about the Intended Use Plan for Clean Water SRF funding at an upcoming State Water Board Meeting, and after that the State Water Board will consider the Intended Use Plan for adoption.
- EPA's San Francisco Bay Water Quality Improvement Fund has opened two separate Requests for Applications. Applications are due September 20.
- Natasha Dunn (SFEP) noted that solicitation period for IRWM funding in the San Francisco Bay Area will be open from August 1 to October 10th. There will be a coordinating committee meeting on Monday, July 25th. For more information, contact Natasha at natasha.dunn@sfestuary.org

Announcements

The WateReuse California Annual conference is scheduled for September 11-13 in San Francisco

Next Meeting – Tuesday, September 20, 2022, 10:30 am by Zoom

Meeting Date: August 3, 2022
Executive Board Meeting Date: August 19, 2022
BAPPG Chairs: Robert Wilson, Autumn Cleave

Committee Request for Board Action: None
Detailed Committee Notes are available online.

Regional Water Board Announcements

Jessica Watkins (RWQCB) announced that the Dr. Teng-Chung Wu Pollution Prevention Award will go this year to SF Environment for their PFAS-related work over the last few years, which has included legislation banning PFAS in takeout food containers, setting standards for compostables, working to eliminate PFAS from fire-fighting foam, setting City purchasing standards for PFAS-free carpet, and more. The award will tentatively be given out at the September Regional Water Board meeting, depending on availability.

Updates on Committee Activity and Announcements

- Steering Committee Joe Neugebauer reported that 97% of budget was used in FY22. Steering committee members recently met with Karen Cowan of CASQA to discuss OWOW (now run by CASQA) and general pesticides-related coordination. BAPPG representatives will be added to the OWOW distribution list for review of future fact sheets. The pesticides subcommittee meets monthly, is open to all interested BAPPG members, and will handle future discussion of OWOW.
- BACWA Announcements: BAPPG's pesticides regulatory support team plans to present to the BACWA Executive Board at the November 18th Executive Board meeting.
- CWEA. The P3S Conference will be held in the Monterey area from Jan 30 – Feb 1, 2023. The CWEA P3S committee also plans to start toolbelt trainings soon.

Presentation: Constituents of Emerging Concern (CECs) in San Francisco Bay

Diana Lin from SFEI provided a presentation on the Regional Monitoring Program's process for prioritizing CECs for San Francisco Bay. There are currently no CECs of "high concern," but there are several CECs in the "moderate concern" category, including PFAS; Alkylphenols and Alkylphenol Ethoxylates; Fipronil and Imidacloprid (pesticides); Bisphenols; Organophosphate Esters; and Microplastics. Dr. Lin provided details about the monitoring strategy in San Francisco Bay for each of these pollutants. For PFAS, this work includes evaluating trends in water and sediment, a new study being launched to look at PFAS in marine mammals, and the BACWA-funded study of PFAS in wastewater (see BACWA PFAS library for the study plan). For microplastics, dryers are being investigated as a potential source of fibers through the stormwater pathway. Dr. Lin also provided information about a new possible concern: Quaternary Ammonium Compound (QACs), which are found in many household products. SF Approved has a safer disinfectant guide to avoid QACs. SFEI is also working on a study of sunscreen chemicals (oxybenzone, avobenzone, octisalate, and degradation products) that will include wastewater sampling at BACWA member agencies. These chemicals are not yet ranked because they have not been measured in the Bay.

Advertising Campaign Update

Nanami Yoshimura from SGA provided an update on the performance of last year's advertising campaigns on FOG (fall) and pesticides (spring). Possible strategies for future advertising campaigns are to include information in other languages (especially Spanish), use native ads, and/or advertise on TikTok (which requires video content).

Pestie Factsheet

Tammy Qualls provided background on a fact sheet about an internet subscription-based pesticide company called PESTIE. There is concern about the company's instructions regarding application of their product, including a suggestion to mix pesticides in the sink. The Pesticides regulatory support team is continuing outreach to CA DPR on this issue.

Pollutant Prioritization for FY24

In breakout rooms, member agency representatives shared highest-priority pollutants for their respective agencies, and brainstormed pollutants of concern. Based on member votes, the final prioritized list is:

- PFAS
- **Toilets aren't Trash Cans**
- FOG
- Pesticides
- Pharmaceuticals

Next BAPPG General Meeting: October 5th, 2022, 10am – 12pm, Location TBD

Collection Systems Committee
Report to BACWA Board

Collection Systems Committee Meeting: 8/3/22
Executive Board Meeting Date: 8/19/22
Committee Chairs: Andrew Damron (NapaSan) and Tyree Jackson (Oakland)

Committee Request for Board Action: None

35 attendees, including representatives from 24 member agencies

Increasing the Safety and Efficiency of Sanitary Sewer Repairs

Jennifer Seguin and Matt Norris (City of San José) presented on the City's recent efforts to increase the efficiency of sanitary sewer repairs. The presentation and discussion included these key points:

- Requests for lower lateral repairs increased dramatically during the pandemic. The City repairs lower laterals as needed, but upper laterals must be maintained by property owners. The City has a sewer grant program that provides up to $3,500 to assist with upper lateral maintenance. Property owners must submit 3 quotes and CCTV evidence of sewer damage to qualify for the grant.
- Modifying crew shifts from 5/8s to 4/10s allowed longer jobs to be completed in just one day, which reduced re-mobilization costs and is proving to be more efficient.
- The City purchased a hydro-excavator, which is especially useful in emergency situations because there is no need to wait for USA markings to begin excavation. The hydro-excavator allows digging around sensitive utilities and tree roots. The hydro-excavator uses high-pressure water, and air versions are also available. With a variety of nozzles available, it can be used in all soil types.
- The City invested in larger extended cab utility trucks with all major equipment built in, which reduces the need to tow additional equipment or bring an extra truck for maintenance crews. This approach enhances crew safety.
- The City has successfully reduced response time by assigning crews to specific geographic areas.

Roundtable Discussion on Crime Prevention and/or Response

Attendees discussed a recent uptick in criminal activity that has negatively affected staff, contractors, and equipment. Incidents discussed included burglary and armed robbery (including manhole covers, vehicles, cameras used for inspection of sanitary sewers, generators, and the lunches/wallets/cell phones of maintenance crews), equipment held for ransom, vandalism, and illegal dumping. Typical contract language is that contractors are in charge of their own security. It is not feasible for collection system crews to be armed, but attendees shared other suggested security enhancements, such as:

- Providing training to crews on how to respond to crime, including active shooter drills.
- Having crews keep vehicles locked at all times, even if they are close by.
- Providing a separate lockbox for valuables and expensive equipment (like cameras).
- Patrolling corp yards to look for cut fences.
- Strengthening relationships with local police and fire departments, including having police participate in training and providing input on site design choices that can deter crime.
- Install an alarm system, particularly one with video surveillance that allows you to communicate directly with an intruder.
- Coordinate with local metal recyclers so that they know not to accept manhole covers.

SSS WDR Update

In July, Afrooz Farsimadan of the State Water Board staff provided an update on the SSS-WDR at a CWEA meeting. The presentation summarizes the major comments received from stakeholders, including BACWA and member agencies. The State Water Board plans to release a revised version of the SSS-WDR in early November (at the latest) and hold a workshop on November 16th. The SSS-WDR will be considered for adoption at the December 6/7 State Water Board meeting. BACWA members who would like to participate in (1) developing training materials to be used by CWEA or (2) participating in a committee recommending changes to CIWQS should contact Mary Cousins.

Announcements and Events

- CWEA TCP Preparation Seminar for Collection System Grades I to IV – Wed., Aug. 10th
- Rising Groundwater Adaptation Workshop, 1 PM, Thur., August 11th – Register here
- Sea Level Rise Planning Roundtable, 10 AM Tuesday, August 23rd – Register here
- Asset Management Committee (Condition assessment) - 1:30 PM, Wed., Aug. 24th

Monkeypox information sources shared during the meeting: CDC MIT Technology Review ("There is no evidence that you can contract monkeypox from wastewater itself.") Video on Monkeypox safety from Alameda County Bay Area wastewater data

Next Collection System Committee Meeting: Thursday, November 10, 2022, 10 AM on Zoom

Laboratory Committee –
Report to BACWA Board

Laboratory committee meeting on: August 9, 2022
Executive Board Meeting Date: August 19, 2022
Committee Chair: Samantha Bialorucki, City of Palo Alto

Committee Request for Board Action: None

Regular meeting: 34 attendees via Zoom representing 23 agencies and the Regional Water Board

Ion Chromatography for Anaerobic Digestion Process Monitoring

Dr. Xin Xu, EBMUD, presented "Developing A Better Method for Anaerobic Digestion Process Monitoring at a Large Wastewater Treatment Plant." Her presentation covered background information about EBMUD's facilities, and explained why the laboratory was seeking to find an alternative to SM 5560 for Volatile Acids (the method used by most BACWA member agencies). SM 5560 is time-consuming and produces heated waste and chemical waste streams, requiring 6 hours to process a batch of 8 samples. Earlier in 2022, the EBMUD laboratory performed method validation for a different method to replace SM 5560: Volatile Fatty Acids (VFA) via ion chromatography. While SM 5560 produces just one value for total Volatile Acids, the ion chromatography method for VFA produces separate results for eight fatty acids. VFAs can be used to calculate additional indicators for anaerobic digestion that are particularly useful in thermophilic digestors, which have a shorter digestion time. Dr. Xu's presentation also covered the following points:

- How EBMUD met the method validation requirements, including sensitivity and accuracy. The VFA method is significantly more sensitive than SM 5560 (MDLs and RLs are more than 10 times lower).
- Analytical workflow for processing samples, which takes about half the time compared to SM 5560
- Tests to determine how often to change the ultrafiltration filter (1/week). Using Cu preservation helps suspended solids removal and extends filter usage.
- EBMUD observed that the quantified value of VFAs was significantly lower than Volatile Acids via SM 5560. The reason for the discrepancy is the subject of ongoing work.

Member Updates

- The group discussed supply chain disruptions affecting helium. Although EPA allows labs to use an alternate carrier gas, hydrogen has additional safety considerations that preclude its use in some labs.
- Several labs are sending samples out for wastewater surveillance of Monkeypox. The group also discussed whether wastewater workers should receive the Monkeypox vaccine.
- A new version of the PET tool is available from the State Water Board. The Excel file (with macros) is available here: blank_pet_tool_2022.xlsm.
- Members discussed reputable vendors for oil & grease extractors
- There was a general discussion about employee hiring and retention.

BACWA Updates (see slide deck)

- EPA approval of the chlorine blanket permit amendment is at least six months away, as the EPA needs to conduct a formal consultation with US Fish & Wildlife Service (USFWS).
- Kerry O'Connor from the Regional Water Board noted during the meeting that the Statewide toxicity provisions are also delayed while EPA decides whether an informal consultation with USFWS is required (Note, the slide deck above has been corrected). Going forward, mew NPDES permits are expected to contain the new language, with a trigger that makes the new language effective following EPA approval.
- The administrative draft version of the Mercury/PCB watershed permit will be available for a three-week review starting on August 22. BACWA has submitted a request for a reduced monitoring frequency for PCB congeners.

TNI Training and Implementation

- The 14th TNI training session with Diane Lawver is scheduled for Tuesday, August 16th. Recordings of previous sessions are available through the BACWA website (password required).
- CWEA Laboratory Committee is hosting an ELAP TNI Workshop September 12-13 at FSSD, led by Bill Ray.

Next Regular Meeting : October 11, 2022, 10 AM – 12 PM via Zoom

Planned Guest Speakers at Upcoming Meetings:
October 11, 222 – Diane Lawver, IR Guns

Executive Director's Report to the Board

July 2022

EXECUTIVE BOARD MEETING AND SUPPORT

- Worked with BACWA staff to plan and manage 7/15 Executive Board meeting
- Conducted the Executive Board meeting agenda review with the BACWA Vice-Chair
- Hosted on-boarding meeting with new vice-Chair
- Consulted with EBMUD facilities to plan Pardee or alternative location for technical seminar
- Continued to track all action items to completion

COMMITTEES:

- Attended Recycled Water Committee, 7/19
- Attended "Understanding your NPDES Permit" permits committee special meeting, 7/20

REGULATORY:

- Hosted call to plan engagement with BAAQMD Reg 2 working group meeting 7/14
- Discussed BAAQMD engagement issues with Board members, 7/15
- Participated in BAAQMD Reg 2 working group meeting #2, 7/18
- Reviewed proposal for reduced monitoring under Hg/PCB Watershed Permit reissuance
- Discussed risk reduction progress with CIEA
- Discussed upcoming NorCal microplastics workshop with organizing consultant

NUTRIENTS:

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

- Discussed nutrient strategy with new member staff
- Attended NBS CMG, 7/8
- Met with CASA Nutrients Subgroup to discuss common issues statewide, 7/12
- Participated in SCCWRP OAH TAG meeting, 7/18
- Participated in CASA debrief from OAH TAG, 7/19
- Discussed load projections with consultant
- Planned and hosted NST meeting 7/26
- Planned and hosted hybrid Watershed Permit Workshop, 7/28
- Developed and updated memo on early actors and solids handling/organics diversion
- Engaged NMS Reviewer and NTT to provide comments on VPA approach document for assessment framework, and charge questions for assessment framework advisory group
- Gathered information from members on projects that will impact nutrient loads
- Discussed WQIF proposal concepts with members and SFEI

FINANCE:

- Reviewed the monthly BACWA financial reports
- Reviewed member invoices prior to distribution

- Updated invoice cover letter
- Reviewed and approved invoices
- Participated in EBMUD/BACWA end-of-fiscal year meeting 7/25

COLLABORATIONS:

- Discussed logistics of in-person meetings with SFEI staff
- Participated in NACWA State/Regional Associations call, 7/20
- Participated in CASA CSWG meeting, 7/20
- Participated in CASA RWG Water meeting, 7/21
- Communicated with R2 Board members about how to contribute to Bruce Wolfe scholarship fund
- Reviewed materials related to EPA WQIF RFA, and participated in informational workshop, 7/27
- Participated in BayCAN Regional Meeting, 7/27

ASC (AQUATIC SCIENCE CENTER)

- Reviewed materials sent via email by ASC ED

BABC (BAY AREA BIOSOLIDS COALITION)

- Attended 7/11 meeting and drafted meeting summary

BACC (BAY AREA CHEMICAL CONSORTIUM)

- Discussed chemical costs with members
- Discussed policy issues with administrator and Board member
- Worked with administrator to plan end of year meeting

BACWWE (BAY AREA COALITION FOR WATER/WASTEWATER EDUCATION)

- Reviewed BACCWE email discussions

ADMINISTRATION:

- Planned for and conducted the monthly BACWA staff meeting to prepare for the Board Meeting and to coordinate and prioritize activities.
- Met with RPM to discuss progress on regulatory issues
- Signed off on invoices, reviewed correspondence, prepared for upcoming Board meetings, responded to inquiries on BACWA efforts, oversaw and participated in updating of web page and provided general direction to BACWA staff.
- Worked with the RPM in the preparation of the monthly BACWA Bulletin.
- Developed and responded to numerous emails and phone calls as part of the conduct of BACWA business on a day-to-day basis.
- Met with RPM to review performance plan for FY23

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
- Worked with AED and Chair to distribute “thank you” email to consultants
- Responded to Board members’ requests for information

Board Calendar

September 2022 – November 2022 Meetings

DATE	AGENDA ITEMS
September 8 & 9, 2022	**Technical Seminar** **Orinda Watershed September 8th** **David Brower Center September 9th** •Watershed Permit Negotiations •Update Ocean Impacts Work
October 21, 2022	**Approvals & Authorizations:** • Annual Report **Policy / Strategic Discussion:** • SFEI PFAS Update **Operational:** •
November 18, 2022	**Approvals & Authorizations:** • **Policy / Strategic Discussion:** • BAPPG Pesticides Presentation **Operational:** •Annual Meeting discussion

BACWA ACTION ITEMS

Number	Subject	Task	Responsibiity	Deadline	Status
	Action Items from July 2022 BACWA Executive Board Meeting		**resp.**	**deadline**	**status**
2022.07.01	Agenda for 7/26 NST meeting	BACWA Executive Director to make updates suggested by attendees and to update graphs with agency submitted information.	ED	7/20/2022	complete
2022.07.02	Key topics for discussion at Pardee technical seminar	BACWA Executive Director to update agenda and location and report back at August meeting.	ED	8/15/2022	complete
2022.07.03	BAOWN update	BACWA Executive Director to inquire about involvement of UC Berkeley School of Public Policy in BAOWN and get back to group	ED	8/15/2022	complete
2022.07.04	Draft BACWA representatives policy update	BACWA Executive Director will update document based on feedback, circulate amongst members and bring it for approval at the August meeting.	ED	8/15/2022	complete
2022.07.05	Representative and Committee Leadership Succession planning	BACWA staff to create a matrix to summarize roles, responsibilities, meeting schedule & etc.	ED	8/15/2022	complete
2022.07.06	Representative and Committee Leadership Succession planning	BACWA staff will check in with current representatives and their level of interest, as well as an update list of representatives.	ED	8/15/2022	complete
2022.07.07	FY23 NMS payment schedule	BACWA staff to prepare BAR for the first payment to be approved at the August 2022 Executive Board Meeting.	ED	8/15/2022	complete
	Action Items Remaining from Previous BACWA Executive Board Meetings				
2022.3.42	Plain-language review of nutrient science program	BACWA ED to work with SFEI to augment plain-language review to include graphics, simplified text, and a summary of what we have learned so far.	ED		on going
2022.6.50	Sea Level Rise round table proposal	BACWA RPM to organize a sea level rise planning roundtable to occur this summer via Zoom.	RPM	9/21/2022	WIP

FY23: 07 of 07 Action Items are complete
FY22: 50 of 52 Action items are completed
FY21: 51 of 51 Action items completed
FY20: *70 of 70 Action Items completed*
FY19: *110 of 110 action Items completed*
FY18: *66 of 66 Action Items completed*
FY17: *90 of 90 Action Items completed*

Regulatory Program Manager's Report to the Executive Board

July 2022

CLIMATE: Continued preparing for sea level rise roundtable discussion among BACWA members to be held in August 2022.

MERCURY AND PCBS WATERSHED PERMIT: Continued review and compilation of PCB congener for 2022 permit reissuance; shared draft data and memo with Permits and Lab committees, and updated based on member feedback; shared updated database of PCB congener data with Regional Water Board staff.

NUTRIENTS: Reviewed draft report regarding use of the Virginian Province Approach in the Assessment Framework for the Lower South Bay; Attended Nutrient Strategy Team meeting and prepared draft notes; Attended joint meeting with Regional Water Board to discuss 3rd Nutrient Watershed Permit.

COMMITTEE SUPPORT:

BAPPG – Conducted outreach regarding Pollution Prevention Award; participated in pesticide committee meeting; participate in steering committee meeting; discussed CA DPR Sustainable Pest Management Roadmap; Discussed Baywise website with BAPPG steering committee member; participated in Social Media strategy meeting; scheduled and participated in coordination meeting with CASQA director.
Laboratory – Assisted with July TNI training session logistics; issued attendance certificates to committee members; prepared draft agenda for August meeting.
Permits – Prepared for and presented "Understanding your NPDES Permit" training session; shared training materials; Prepared draft agenda for August meeting.
Recycled Water – Participated in planning meetings for site supervisor training video; assisted with preparation of contract documents for video editor; prepared draft agenda for July meeting; attended and prepared notes for July committee meeting; circulated notes to Committee.
Executive Board – Provided regulatory and committee updates at July meeting; reviewed minutes and action items.

ADMINISTRATION/STAFF MEETING – Discussed draft performance plan for FY23 with Executive Director; Finalized performance plan for FY23; Contract management tasks for FY23; Participated in Staff Meeting.

BACWA MEETINGS ATTENDED:
BAPPG Pesticides Committee (7/12)
BAPPG Steering Committee (7/12)
Executive Board (7/15)
Recycled Water Committee (7/19)
Lab Committee TNI Training (7/19)
Nutrient Strategy Team (7/26)
Joint Meeting with Regional Water Board (7/28)

EXTERNAL EVENTS ATTENDED:
Regional Water Board Meeting (7/13)
CASA Collection System Workgroup (7/20)
CASA Regulatory Workgroup (7/21)
BayCAN Regional Meeting (7/27)
CASA ACE Workgroup (7/28)

From: Jared Voskuhl
Subject: [Regulatory] CASA Regulatory Update – August 2022
Date: Tuesday, August 2, 2022 5:46:01 PM

Good Evening,

Please find below Water Quality, Biosolids, and Air updates from July and for August. Our June and July newsletters are linked, too. Our next Regulatory Workgroup meeting will be held on September 15. The next ACE meeting will be held on August 25. Additionally, on August 10-12, CASA will host our 67th Annual Conference at the Resort at Squaw Creek in Lake Tahoe, CA for which our conference program is available, and if you would like to attend, you may register here. Please let us know if you have questions or problems accessing the linked materials. We hope to see you later this month in northern California!

Thank you,
The RWG Team

WATER QUALITY

CASQA & State Water Board Bacteria Summit 9/14-16

Between September 14 and 16, the California Stormwater Quality Association (CASQA) and the California Water Boards are co-hosting a three-day statewide summit on bacteria at the CalEPA Building in downtown Sacramento. CASQA has released a draft agenda, which can be found here. The purpose of this multi-day summit is to identify the priority technical and regulatory actions needed to improve water quality in California's river and ocean waters, as well as the regulatory approaches and tools available to permittees to implement the standards. They are interested in our members participating on items for where there may be opportunities to work together to identify solutions and actions that will help California reach these goals. The public registration opened yesterday here. If you have any questions, please do not hesitate to reach out to Jared Voskuhl.

State Water Board Meeting on 8/2 for 2021 VAR for Wastewater and Recycled Water

On August 2, during the meeting of the State Water Resources Control Board (State Water Board/SWB), there was an informational item in the afternoon summarizing the results of the 2021 Volumetric Annual Report for wastewater and recycled water. For background, the SWB's Water Quality Control Policy for Recycled Water requires wastewater and recycled water permittees (including wastewater permittees that do not produce any recycled water) to annually report monthly volumes of influent, wastewater produced, and effluent, including treatment level and discharge type. At the August 2 meeting, State Water Board staff summarized the results for the 2021 volumetric data from the 700+ facilities who submitted the required information by the annual April 30 deadline. This year's report included analysis of recent trends in California since there now are three consecutive years of this data and included a broader discussion about revising our statewide goals for recycled water in lieu of this information and the continuing drought. Despite of the 70,000 AFY decrease to effluent volumes in 2021, California agencies still increased their production by 3,000 AFY compared to the prior year. Reach out to Jared Voskuhl with any questions or would like more information.

State Water Board Water Quality Fees Stakeholder Workshop on 8/4

On August 4, the State Water Board will host a workshop on the revised proposed waste discharge permit fund fees (water quality fees) for fiscal year 2022-23. In the newest August proposal, which is linked here, WDR fee payers would see a 3.8% increase and NPDES fee payers would see a 4.1% increase, values which include a 5% increase to establish a fund reserve. CASA's members and other stakeholders from different sectors all commented during the SWB's June workshop and discouraged staff from pursuing the establishment of the fund reserve this year in light of the sharp increases over the last several years and due to the fact that contributions from each sector to the reserve fund would not be earmarked for use by the same sector in subsequent years. If members provide the same comments on August 4 and the SWB eliminates the fund reserve portion, WDR fee payers would have a

1.1% decrease and NPDES fee payers would have a 0.8% decrease for their 22-23 water quality fees. This would be a favorable result for our members, especially when considering that the SWB's June proposal, linked here, would have increased WDR fees by 6.6% and NPDES fees by 5.5%. On the SWB's Fees webpage, you will find all relevant information and instructions on how to participate in the meeting. CASA will participate in the workshop this week, so please reach out to Jared Voskuhl with questions, comments, or concerns.

State Water Board Meeting on 8/16 for CWSRF 22-23 IUP & Program Review

On August 16, there will be a meeting of the State Water Board, which will feature two informational items: one about the 2022-2023 Clean Water State Revolving Fund Intended Use Plan (CWSRF IUP) and another summarizing the results of the multi-year management review of the administration of the CWSRF in California. Related to the first item, the State Water Board expects to release the IUP for public comment on August 5, and it will incorporate new federal infrastructure funding. For the second item, during the August 16 SWB meeting, there will be an Informational Item on the forthcoming report which represents the culmination of a multi-year project CASA has been working on with WateReuse California and the State Water Board. As part of this project, we sought to connect and learn from CWSRF borrowers and SWB staff in the Division of Financial Assistance about how the State Water Board may optimize the administration of the CWSRF and identify efficiencies so that applicants are better able to track the status of their submissions and receive disbursed funds in shorter periods than have been observed in recent years. Once the report is finalized after the 8/16 meeting, the SWB intends to release it to the public, at which time we will share it broadly to our members. In regard to the 2022-23 CWSRF IUP, the SWB expects to adopt it at their September 20 meeting. If you have questions, please contact Jared Voskuhl and Bobbi Larson.

DWR Accepting Application for $200M in Water & Wastewater Resilience Grants

On August 19, applications will begin being accepted by the California Department of Water Resources (DWR) for nearly $200m in grant funding for infrastructure resilience under Proposition 1. DWR's Grant Program Guidelines and Proposal Solicitation Package are linked and explain the process and requirements for accessing grant funding to help local agencies advance water and wastewater infrastructure resilience projects. Eligible wastewater project types are listed on pages 12-13 of the Grant Program Guidelines, and the available funding amounts for various regions are found in the column on the far right side of Table 2 on page 12 of the Proposal Solicitation Package. Applicants may apply by either the first deadline of August 19 or the second deadline of February 1, 2023. Full information is available in the linked programmatic resources, and we hope your agency will consider applying for these funds.

State Water Board Briefs CWEA Collections Committee on SSS WDR Reissuance Update

On July 23, State Water Board staff attended CWEA's annual Collections Committee meeting at Morrow Bay to speak about what we may expect to see in the forthcoming reissuance of the proposed statewide Sanitary Sewer Systems Waste Discharge Requirements (SSS WDR). The SWB presentation is available here, and the Board intends to adopt the new SSS WDR by the end of December this year and release the proposed final draft of the Order at least 30 days before the scheduled adoption hearing. By way of background, our coalition comment letter on the formal staff draft is linked. Please reach out to Jared Voskuhl if you

have questions about the information contained in the presentation.

Ceriodaphnia Dubia Study Expert Science Panel Meeting on 8/8

On August 8, the Expert Science Panel for the Development of Quality Assurance Recommendations for the *Ceriodaphnia dubia* Toxicity Test (*Ceriodaphnia dubia* Study) will meet between 9 and 11 AM. During the first 75 minutes of the meeting, the Expert Science Panel will meet in closed session to discuss the Quality Assurance Project Plan (QAPP) for the study baseline testing. The last half hour of the meeting will be open to the public as the Expert Panel will report out their thoughts on the study, answer questions on the logistics and clarifications of the process, and formally approve the QAPP. Please note, the open session is not a public comment period. To participate in the meeting, please register in advance here. More information and materials about the study are archived on SCCWRP's webpage for the study. If you have questions, reach out to Jared Voskuhl.

State Water Board Publishes Revised Toxicity Provisions After 2021 Re-Adoption

On July 21, the State Water Board posted the regulatory text for the Toxicity Provisions and accompanying Staff Report on their Program Page to reflect changes adopted per Resolution 2021-0044 and a subsequent January 20, 2022 Executive Director's memo. Resolution 2021-0044 approved revisions to the Toxicity Provisions and Staff Report. These revisions are described in detail in Attachment 1 and Attachment 2 to the resolution. In addition, consistent with authority granted in Resolution 2020-0044, minor, non-substantive changes to the Toxicity Provisions were made to add clarity and consistency. These changes are described in the January 20, 2022 Executive Director's memo. If you have any questions, please reach out to Jared Voskuhl.

State Water Board Hosts B&C&B Workshop on 7/14 About Nutrients Management

On July 14, the State Water Board hosted its first workshop in several years on their forthcoming "Biostimulation, Cyanotoxins, and Biological Condition Provisions" (B&C&B). While SWB staff shared they do not expect to issue new draft regulations for another 12 to 24 months, they stated they held the meeting to discuss and review the science for forthcoming statewide standards, as the staff who were working on the toxicity provisions have now pivoted to pursuing these policy changes over the next couple of years.

During the July 14 workshop, SWB staff presented their 4 project goals: (1) Adopt numeric or narrative water quality objectives for biostimulation, nutrients and other biostimulatory substances, and cyanotoxins, (2) Normalize and expand the use of biological condition assessment methods and scoring tools for assessing benthic macroinvertebrate and algae biological integrity in wadeable streams, (3) Adopt a program of implementation to achieve the biostimulation, nutrient, and cyanotoxins water quality objectives, and to improve biological conditions and maintain water quality in streams with healthy biological communities, (4) establish a new beneficial use or amend an existing beneficial use to encompass dogs and other domestic animals using waterbodies to ensure protection from cyanotoxins and other pollutants.

In advance of the workshop, on July 11, supplemental presentations were made available on the B&C&B program webpage under the "Recorded Webinars" section on the right hand side of the page, and they are based on the scientific research conducted by Southern

California Coastal Water Research Project (SCCWRP) on water bodies covered by the B&C&B such as wadeable streams, lakes, rivers, and estuaries. Please reach out to Jared Voskuhl with questions or feedback from last month's workshop.

SCCWRP Research Update on OAH Modeling and Nutrients Management on 9/9

On September 9, SCCWRP will hold its quarterly Commission meeting, and there will be a presentation on the potential for wastewater recycling to reduce nutrients to mitigate for the adverse modeled effects of wastewater discharges on ocean acidification and hypoxia (OAH) in the Pacific Ocean.

Previously during the SCCWRP Commission's June 3 meeting, researchers shared about the modeled effects of wastewater discharges on OAH and the biological effects of those changes. The presentations are available here. Since that meeting, SCCWRP engaged with stakeholders through virtual Office Hours, SCAP submitted technical questions about the model for which they are awaiting responses, and SCCWRP hosted a stakeholder meeting on July 18 to discuss the mass-balance aspect of ROMS-BEC model.

On August, SCCWRP plans to host their quarterly Commission Technical Advisory Group meeting (CTAG) and will provide a preliminary technical presentation on the potential to mitigate OAH impacts if 50% or 90% of wastewater discharges on the coast are recycled. SCCWRP also will host another stakeholder Technical Advisory Group meeting before the September 9 commission meeting. Please reach out to Jared Voskuhl with you questions or comments.

State Water Board Update on 7/7 about OAH Modeling and Nutrients Management

On July 7, the State Water Board updated their statewide policies page with current plans for using the OAH model that SCCWRP is developing with the Ocean Protection Council. Per the update, SWB staff are scoping an Ocean Plan amendment to release in June 2024 for adoption by the end of 2024 to add water quality objectives and a program of implementation to address ocean acidification, hypoxia, and the effects of anthropogenic sources of nutrients in ocean waters, which the SWB had ranked as a top five high priority project in the 2019 Ocean Plan Review. SWB staff is working with the Ocean Protection Council, SCCWRP, and others to better understand (1) the impacts of ocean acidification and hypoxia on marine life, (2) the effects of anthropogenic sources of nutrients, and (3) appropriate parameters and thresholds to address these impacts. Additionally, staff are also working within the Integrated Report program to identify appropriate parameters (e.g., aragonite saturation) and thresholds to determine whether parts of the Pacific near outfalls are impaired for ocean acidification. If you have questions about the Board's ongoing work, you may reach out to Rebecca Fitzgerald, the manager of the State Water Board's Water Quality Standards and Assessment Section**.**

SWB Timeline Update for 2024 Integrated Report & 303(d) List for R2, R4, R5-S, R8

On July 7, the State Water Board updated their statewide policies page with the schedule for the 2024 Integrated Report. Per the update, the draft Staff Report for the 2024 Integrated Report is scheduled for release for public comment next winter by February 2023, and it will be followed by a public hearing for the draft 303(d) list in spring 2023. For this listing cycle, SWB staff are administering the public process for all Regional Water Boards on the 2024

Integrated Report and are currently assessing data that was submitted by agencies by the 2020 deadline.

Sanitation agencies around San Francisco (Region 2), Los Angeles (Region 4), Sacramento (Region 5-S) and Santa Ana (Region 8) should begin to reach out to their respective Regional Water Board staff to inquire about how they have assisted and reviewed the State Water Board's proposals for new listings in the 2024 report. Based on the clean water community's experiences for listings in the 2020-22 report, it is in your agency's best interest to reach out early to your Regional Water Board to learn whether there are new listings for receiving waters in your service area, how State Water Board staff are determining new listings, and their underlying basis and priority if it may potentially affect your agency.

Before then, on September 1, the California Water Quality Monitoring Council (CWQMC) will feature a multi-hour presentation about the Board's ongoing process for the forthcoming 2024 draft 303(d) list. Of particular interest is whether the SWB may prospectively set thresholds for aragonite saturate, pH, and/or dissolved oxygen, which are all proxies for OAH and which SWB staff have shared they are scoping a rule and developing a line of evidence utilizing the ROMS-BEC model for the 2024 Integrated Report. If you are interested in attending the CWQMC meeting, please reach out to Drs. Lorien Fono and Sam Choi, your CWQMC representatives.

If you have inquiries about the forthcoming 2024 report and associated administrative processes by the SWB, please reach out to Spencer Saks.

CA State Auditor's Report Publish on SWRCB Funding Delays and Administrative Backlogs

On July 28, the California State Auditor released a Report on the State Water Resources Control Board funding delays to provide Californians with safe drinking water. The report found nearly a million Californians face possible long-term, negative health outcomes because they receive unsafe drinking water from a failing water system. The report observed that the State Water Board has funding available to help these failing systems improve the quality of their drinking water but that the board has demonstrated a lack of urgency in providing this critical assistance, as represented by the near doubling of the amount of time for water systems to complete applications for funding and the SWB to approve and award that funding, from 17 months in 2017 to 33 months in 2021. The report goes on to conclude the State Water Board's lack of goals and metrics for its application process has likely contributed to this lengthening time frame and directs the State Water Board to develop a plan to ensure that its staff and its contracted providers efficiently utilize resources while not duplicating administration. If you have questions or comments about the audit report, please reach out to Spencer Saks.

USEPA to Present During National Organizations' Webinar on Implementing BIL Funding

On August 2, USEPA's Managing Director for Infrastructure Implementation, Karen Dettmer, appeared in a virtual webinar hosted by The Bipartisan Policy Center, National Association of Counties, and National League of Cities, to discuss implementation of the Bipartisan Infrastructure Law (BIL) in the fourth event of their "Overcoming Challenges and Seizing Opportunities: Implementing the Bipartisan Infrastructure Law" series. The Bipartisan Infrastructure Law provides USEPA with approximately $60 billion to invest in infrastructure

—including the single largest investment in water infrastructure ever from the federal government. Leveraging these federal dollars for maximum impact will require strategic and efficient deployment of resources along with coordination with states, counties, cities, and other federal agencies, so participants in the webinar heard more about those challenges and how USEPA intends to address them. Please each out to Sarah Sapirstein if you have questions.

State Water Board Recordings from the 2022 California Water Data Science Symposium

On July 3, the California Water Quality Monitoring Council released the recordings and resources from the 7th annual California Water Data Science Symposium & California Water Data Challenge Kickoff that was held on June 28 and 29. To view all the recordings that the California Water Quality Monitoring Council has made available, you can go to their YouTube page linked here. The Science Symposium's webpage, which includes all of the related links and resources, is available here. The Council has updated their agenda with links to all slide decks, links shared in the chat, and resources that were made available. If you have any questions, please reach out to Spencer Saks.

GIS Service Area Map for Water Conservation, Infrastructure Financing, & WBE

In August, CASA will reach out in a separate message about an initiative to submit GIS data containing your respective agencies' service boundaries. These maps would be shared with the SWB and utilized by multiple programs at the SWB, including for the analysis of impacts of water conservation and declining flows, for infrastructure financing, and for wastewater-based epidemiology. Agencies around the Bay Area previously submitted their service boundaries, so you may view this link to see the relative simplicity of information that is being sought. Lookout for a message later this month with more detailed information, and please contact Jared Voskuhl if you have any questions in the interim.

BACWA's "Understanding your NPDES Permit" Session

On July 20, the Bay Area Clean Water Agencies (BACWA) hosted a special virtual session of their Permits Committee. Mary Cousins provided an expanded presentation of her talk at CWEA's 2022 Annual Conference entitled, "Understanding your NPDES Permit." The link to the recording of the session is available here, and the presentation covered the laws and regulations governing NPDES permits, basin plans, beneficial uses, antidegradation policy, the rationale for effluent limitations (including an explanation of Reasonable Potential Analysis and the State Implementation Policy), and tips for negotiating a reissued NPDES permit. If you have further questions, please reach out to Lorien Fono and Mary Cousins.

NACWA Releases 4 White Papers to Aid Clean Water Utilities & Frame Policy Discussions

On July 21, NACWA released a series of four white papers to provide valuable insights and assistance to public clean water utilities, as well as to help structure critical advocacy and policy discussion on key clean water issues moving forward. The four white papers are: (1) Considerations for Using Integrated Planning – What Clean Water Utilities Should Know, (2) Water Infrastructure Funding Parity Report, (3) Current, Emerging, and Potential Technologies in the Clean Water Space… Opportunities for the 21st Century Utility, and (4) Biosolids and PFAS: Maintaining Management Options is Critical to Communities and Sustainability. For more reach out to Nathan Gardner-Andrews, NACWA's Chief Advocacy & Policy Officer.

Join CASA at Our 67th Annual Conference in Lake Tahoe 8/10-12

CASA will hold our Annual Conference at the Resort at Squaw Creek on August 10-12, 2022. The theme of this year's Annual Conference is Elevating Excellence. Throughout the event, we will feature the myriad of ways in which California's clean water community goes above and beyond our mission to protect public health and the environment. The conference will feature numerous speakers covering important topics, including cybersecurity for local agencies, workforce development, driving sustainability, regulatory topics such as PFAS and microplastics, and much more! We will also feature speakers from the State Water Board, and an in-depth financial retrospective and forecast you won't want to miss. The technical sessions on Wednesday, August 10 should be of particular interest to regulatory professionals. The link here will lead you further information about registration, hotel, and COVID related information that will be in place as part of this event. Please each out to Cheryl Mackelvie if you have questions or need assistance registering. We look forward to seeing you there!

State Water Board Agenda Roundup

Here are recent State Water Board agendas for their meetings on July 19-20 and August 2. The Executive Director reports are available for June (2021 VAR, Arrearages, 303(d) assessments) and July (wastewater consolidation program and SB 1215 implementation) which feature a link to the SWB's recently updated statewide and regional policies calendar.

BIOSOLIDS

USEPA PFAS Research Webinar on 8/4

On August 4, USEPA will host a workshop highlighting PFAS research conducted by the Water Research Foundation. This workshop is part of the "EPA Meets the World" webinar series focused on the latest developments in per- and polyfluoroalkyl substances research. If you would like to register to attend this event, please see the registration link here. To find out more about this webinar series, please see here, or please reach out to Greg Kester.

CASA, NACWA, WEF, AWWA Submit Coalition Letter to USEPA on PFAS CERCLA Rulemaking

On July 11, a coalition of organizations representing water and wastewater sectors and local government sent a letter to the U.S. Environmental Protection Agency and Office of Management and Budget (OMB) about their tentative plan for an Advance Notice of Proposed Rulemaking to designate PFOA and PFOS as hazardous substances. The letter outlines significant concerns about the possible implications to municipal entities if EPA moves forward and designates PFAS chemicals as a hazardous substance under the federal Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) – also known as the Superfund law. In particular, the letter notes that municipal entities – like public clean water utilities – are passive receivers of PFAS but could face considerable financial liability if the chemicals fall under CERCLA given the strict liability nature of the law. Additionally, the letter expresses concerns that EPA has not sufficiently consulted with local governments about the potential implications of a CERCLA designation, requesting that EPA

engage in further discussions with municipal entities before making any regulatory determinations. CASA and NACWA will continue to aggressively advocate with EPA and Congress on PFAS issues and push back on regulations that may unnecessarily harm the clean water sector. If you have questions, please reach out to Sarah Sapirstein.

CASA Releases Infographic on Relative Concentrations of PFAS

On July 28, CASA released an updated infographic formulated on information compiled from the cited scientific literature to provide readers a relative comparison of concentrations of PFAS in various everyday products and biosolids. The infographic also provides context for discussing the wastewater sector's role in helping manage PFAS in the environment. The infographic is available here. Please reach out to Greg Kester if you have questions.

USEPA Requests Feedback by 8/29 for PFAS Data Gaps and Research

On July 13, the USEPA Office of Science and Technology Policy released a Notice of Request for Information: Identifying Critical Data Gaps and Needs to Inform Federal Strategic Plan for PFAS Research and Development. Comments are due on August 29, and we will be reviewing this and will offer comments as appropriate. Please reach out to Greg Kester if you would like to be part of a review team or if you have any questions.

CalRecycle Webinar on 8/30 about Forthcoming Regulatory Changes to the RDRS Program

CalRecycle will soon begin a rulemaking to update the regulations for the Recycling and Disposal Reporting System (RDRS), pursuant to SB 343, AB 881, and AB 901. Before the formal rulemaking begins, the Department is holding three informal workshops where staff will overview the changes, present draft regulatory text, and solicit stakeholder feedback. They have already held two of the workshops virtually, and on August 30, CalRecycle will host the third workshop for which you may register here to attend virtually or otherwise use this link to watch the Webcast on the day of the event. Please reach out to Greg Kester if you have questions.

Northwest Biosolids Grant Application Deadline 9/9

On September 9, applications are due to the Northwest Biosolids funding opportunity to help expand research into all their member areas. This funding opportunity focuses on quantifying the climate change and economic benefits of biosolids, and Northwest Biosolids has committed $75,000 to this new research grant program for existing members, new members, and their research partners who have interest in biosolids and related topics. The invitation is linked here. Please each out to Greg Kester if you have questions.

Northwest Biosolids Research Library for July on Nutrient Budgets and Tracking

The July Biosolids Research Library from Dr. Sally Brown is available here, and the bibliography of the new items are available here. These articles are focused on how to do nutrient budgets and track nutrient flows for specific regions. For more information or to receive the full articles please reach out to Greg Kester.

AIR

CARB Hosts Public Workgroup on Draft Advanced Clean Fleets Regulation Provisions

On July 26, the California Air Resources Board (CARB) held an important workshop on the Draft Advanced Clean Fleets Regulation. The workshop's aim was to publicly discuss with stakeholders how to improve draft provisions for High-Priority Fleets, Federal Fleets, and State and Local Government Fleets. This meeting focused on what zero-emission vehicle (ZEV) models and configurations are available for utilities and how to improve draft provisions intended to address situations when ZEVs are not available in the needed configuration or if available ZEVs are not suitable for a particular fleet's daily duty-cycle at the time of purchase. The CARB staff presentation is linked, and a recording of the meeting is available, too. If you have any questions, please reach out to Sarah Deslauriers.

CARB Hosts Workshop on the Low Carbon Fuel Standard

On July 7, CARB held a workshop on potential changes to the low carbon fuel standard, a program which incentivizes the use of wastewater-derived biogas for production of a low carbon transportation fuel. The potential changes focused largely on shifting LCFS pathways away from biofuels to hydrogen (in line with recommendations made during the Scoping Plan Update Public Meeting. Sarah Deslauriers commented on behalf of CASA, along with other members, to express the need for continued beneficial use of biogas, to request the continued use of existing pathways, and to express the need for demonstration projects showing the viable use of hydrogen as a transportation fuel before abandoning the existing pathways. The staff presentation is available here, and the recording of the workshop is available here. Written comments on this issue are being developed and will be submitted by August 8. If you would like to participate on this issue, please reach out to Sarah Deslauriers.

CALENDAR

August 2 SWB Board Meeting (2021 VAR Info Item)

August 2 Webinar on Implementing BIL Funding Provisions at EPA

August 4 SWB Water Quality Fees Stakeholder Meetings

August 4 USEPA PFAS Research Webinar

August 5	SWB Drinking Water & ELAP Fees Stakeholder Meeting
August 8	Cerio Study Expert Science Panel Meeting
August 8	CARB Comment Deadline re: Low Carbon Fuel Standard
August 10–12	CASA Annual Conference (Resort at Squaw Creek, Lake Tahoe, CA)
August 16	SWB Board Meeting (CWSRF 22-23 IUP & CWSRF Management Review)
August 19	DWR Resiliency Grant Application
August 29	USEPA Comment Deadline for PFAS Data Gaps and Research Needs
August 30	CalRecycle's Informal Workshop on RDRS
Sept. 1	California Water Quality Monitoring Council Meeting (2024 303(d) List)

Sept. 7	SWB Board Meeting
Sept. 9	SCCWRP Commission (Water Recycling and OAH Impacts)
Sept. 9	Northwest Biosolids Grant Deadline
Sept. 14	Ocean Protection Council Meeting
Sept. 14-16	CASQA & SWB “Bacteria Summit” (Sacramento)
Sept. 20	SWB Board Meeting (WQ Fees & CWSRF 22-23 IUP)

Visit our website

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2022 Estuary Blueprint

BACKGROUND

The San Francisco Estuary Partnership's 2022 Estuary Blueprint is a collaborative, consensus-driven five-year roadmap for the San Francisco Estuary. The Blueprint identifies the top actions needed for:

- increased climate resilience
- improved water quality for animals and people
- healthier habitats and wildlife
- thriving human communities

The San Francisco Estuary Blueprint updates the Comprehensive Conservation and Management Plan, a requirement of the Clean Water Act. The Plan was first produced in 1993 and is the most comprehensive plan for the ecological health of the Estuary.

ESTUARY BLUEPRINT HIGHLIGHTS

The 2022 Blueprint will drive regional actions to:

- accelerate wetland restoration, sea level rise adaptation, and other multi-benefit nature-based projects along the shoreline
- cut through "green tape" and remove hurdles to implementing nature-based solutions
- elevate the role of frontline and underserved communities and Tribes in planning for and benefiting from a healthy, resilient Estuary
- decrease carbon emissions and increase carbon sequestration
- reconnect and restore creeks to provide habitat and reduce flooding
- increase use of dredged sediment and soils for flood management and restoration
- plus, many other actions on trash, water quality, habitats, and more.