15,005

BACWA EXECUTIVE BOARD MEETING
Thursday, May 24, 2012, 8:30 a.m. – 12:00 p.m.

HANDOUTS

Handout Packet is available on the BACWA website (www.BACWA.org).

Pages	Handout Title	Agenda Item #
1 – 2	Agenda	
3	Strategic Planning for San Francisco Water Board – Typical Questions from Jim McGrath	1
4 – 6	Meeting Minutes from BACWA Executive Board Meeting of May 3, 2012, File 15,004	2
7 – 12	March 2012 Treasurer's Report	3
13 – 17	BAPPG Report	4
18	Collection Systems Committee Report	4
19	Lab Committee Report	4
20	Permits Committee Report	4
21 – 22	Recycled Water Committee Report	4
23 – 31	Executive Director Report Attached: *Laypersons Guide to Municipal Wastewater in California* E-mail and Outline	6
32	Chair Authorization for Sacramento Regional Permit Comments Assistance from Somach Simmons & Dunn and Larry Walker Associates	7
33 – 53	Board Action Request – Approval of Grant Agreement between BACWA and the State Coastal Conservancy to fund Prop 84 Grant Administration; $50,000	8
54 – 55	Board Action Request – Agreement with Patricia McGovern Engineers for Regulatory Program Manager services; $100,000; FY 2012-13; File 12,729	9
56 – 84	Sacramento Regional Permit Draft Order	10a
85	SWAMP Suisun Bay Study Meeting Agenda, May 22, 2012	10b
86	Board Action Request – Nomination/Election of BACWA Executive Board Chair and Vice Chair 2012-2013	11

Executive Board Meeting Agenda

Thursday, May 24, 2012, 8:30 a.m. – 12:00 p.m.
EBMUD Lab Library, 2020 Wake Ave., Oakland, CA

ROLL CALL AND INTRODUCTIONS (8:30 a.m. – 8:35 a.m.)

PUBLIC COMMENT (8:35 a.m. – 8:40 a.m.)

CLOSED SESSION (8:40 a.m. – 9:00 a.m.)

The Board will meet in Closed Session to discuss personnel matters pursuant to California Government Code section 54957.

REPORT OUT FROM CLOSED SESSION (9:00 a.m. – 9:05 a.m.)

PRESENTATIONS (9:05 a.m. – 9:40 a.m.)

1. *San Francisco Water Board Strategic Planning*, Jim McGrath

CONSENT CALENDAR (9:40 a.m. – 9:45 a.m.)

2. May 3, 2012 BACWA Executive Board Meeting minutes
3. March 2012 Treasurer's Report

REPORTS (9:45 a.m. – 10:30 a.m.)

4. Committee Reports
5. Executive Board Reports
6. Executive Director Report
7. Chair & Executive Director Authorized Actions
    a. Chair Authorization to utilize As Needed contract with Larry Walker Associates for assistance with Sacramento Regional Permit comments; not to exceed $9,900; FY 2011-12; File 12,448
    b. Chair Authorization to execute an agreement with Somach Simmons &Dunn for assistance with Sacramento Regional Permit comments; not to exceed $9,900; FY 2011-12; File 12,730
    c. Executive Director Authorization to utilize As Needed contract with RMC Water & Environment for assistance with 13267 letter sampling plan requirements; not to exceed $4,999; FY 11-12; File 12,436

OTHER BUSINESS (10:30 a.m. – 12:00 p.m.)

8. Authorization: Approval of Grant Agreement between BACWA and the State Coastal Conservancy to fund Prop 84 Grant Administration; $50,000; File 12,731
9. Authorization: Agreement with Patricia McGovern Engineers for Regulatory Program Manager services; $100,000; FY 2012-13; File 12,729

10. Discussion: Nutrients
    a. Sac Regional Permit hearing in July; comments due June 15th
    b. SWAMP meeting with north Bay Dischargers
11. Discussion: Nomination/Election of 2012-2013 BACWA Executive Board Chair and Vice Chair
12. Discussion: Pardee, October 23 – 26, 2012

NEXT REGULAR MEETING

The next meeting of the Board is tentatively scheduled for June 28, 2012.

ADJOURNMENT (12:00 p.m.)

Strategic Planning for San Francisco Water Board

TYPICAL QUESTIONS

1. Identify strengths and weaknesses of the Regional Board approach, including staff, leadership, and Board hearing process.
2. Identify particularly good examples that can be built on and used as models for other work.
3. Identify results that could be improved, and what you think are the underlying causes.
4. Several issues came up during the past several years that originated outside of the Board. Should the Board staff have anticipated these issues emerging, or is the introduction of these issues from outside the Board a sign that public input is working?
5. Identify those water quality issues that you think should be the Board's top three priorities.
6. What should get less attention?
7. What should the Board due to make life easier for the staff?

Jim McGrath draft, March 13, 2012

Executive Board Meeting Minutes

Thursday, May 3, 2012, 9:00 a.m. – 11:00 a.m.
EBMUD Treatment Plant Lab Library
2020 Wake Avenue, Oakland, CA

ROLL CALL AND INTRODUCTIONS

Executive Board Representatives: Ben Horenstein, Chair (East Bay Municipal Utility District); Laura Pagano (San Francisco Public Utilities Commission); Mike Connor (East Bay Dischargers Authority); Ann Farrell (Central Contra Costa Sanitary District); James Ervin (City of San Jose).

Other Attendees: Dave Williams (East Bay Municipal Utility District); Brian Campbell (East Bay Municipal Utility District); Greg Baatrup (Fairfield-Suisun Sewer District); Amanda Roa (Delta Diablo Sanitation District); Tom Hall (Sunnyvale/EOA); Denise Conners (Larry Walker Associates); Monica Oakley (RMC Water and Environment); Holly Kennedy (HDR Engineering); David Senn (San Francisco Estuary Institute); Jim Kelly (BACWA); Alexandra Gunnell (BACWA).

PUBLIC COMMENT

There were no public comments.

CONSENT CALENDAR

*Consent calendar **agenda items 1 and 2** were approved in a motion made by Mike Connor and seconded by Laura Pagano. The motion carried unanimously.*

1. March 22, 2012 BACWA Executive Board Meeting minutes
2. February 2012 Treasurer's Report

Agenda item 3, a Resolution Adopting Prop 84 Budget and Workplan for Administration of the Proposition 84 Grant, File 12,711 was pulled from the consent calendar for further discussion. Brian Campbell confirmed that Local Project Sponsor (LPS) agencies could be financially liable (1) for administrative costs that exceed budgeted amounts, or (2) for funds that must be returned to the Department of Water Resources (DWR) in the event that one of the LPS agencies fails to perform under the conditions of the Grant Agreement. It was explained that these provisions were included in the agreements to protect BACWA from potential liability. The terms are the same as those set forth in the Prop 50 agreements and to date neither of these events has occurred, nor are they expected to occur. Prop 50 administrative expenditures were used as the basis for developing the Prop 84 administrative budget, and based on conversations with DWR it appears unlikely that the State would request that funds be returned.

A motion to approve the resolution was made by Ben Horenstein and seconded by Laura Pagano. The motion passed unanimously with an affirmative vote from each Executive Board member representing the Principal agencies (EBMUD, CCCSD, EBDA, City of San Jose, SFPUC).

REPORTS

Committee Reports for **agenda item 4** were included in the meeting handout packet and attendees were invited to respond to questions.

It was noted that the external peer review of the California State Water Resources Control Board (SWRCB) draft Policy for Toxicity Assessment and Control has concluded. The revised policy will be released for public review and then another workshop will be scheduled. Jim Kelly will circulate an e-mail received from Bobbi Larson to update the BACWA Executive Board members (Board) on this

matter.

The Board praised the quality of the AIR Newsletter, included in the handout packet, and requested that it be distributed to all BACWA members, perhaps as a feature in the BACWA electronic newsletter.

BACWA Executive Board members were invited to share any items of interest under **agenda item 5**, **Executive Board Reports.**

- Ann Ferrell notified attendees that CCCSD had an explosion in their cogeneration facility and are currently conducting an extensive investigation into the cause. The Board suggested that the experience gleaned from this incident as well as similar equipment, facilities, or operations failures at other agencies may be of interest to members and might be best shared at a BACWA sponsored workshop.

For **agenda item 6**, the **Executive Director's Report**, was included in the meeting handout packet and reviewed by the Executive Director (ED). Meeting attendees were given the opportunity to discuss the contents of the report. The ED distributed a draft Technology Innovation Business Plan from WERF. Mike Connor and Ann Farrell will continue to investigate opportunities proposed by WERF and Isle.

The following **Chair & Executive Director Authorized Actions** (**agenda item 7**) were made since the March 23, 2012 BACWA Board Meeting.

a. Executive Director Authorization for Chinook advertisement to support BAPPG outreach campaign, not to exceed $1,900; File No. 12,698.
b. Executive Director Authorization for agreement with Jennifer Jackson to support BAPPPG Baywise.org outreach, not to exceed $4,999.00; File No. 12,710.
c. Executive Director Authorization to utilize existing contract with HDR to provide as needed support for NNE comments; File No.12,568.

The Board requested that Jim Kelly confirm with the BAPPG Chair that there are no legal issues surrounding the contract with Jennifer Jackson (**item 7b**).

For **agenda item 8a**, the **Strategy Development Presentation,** begun at the joint meeting with the San Francisco Regional Water Quality Control Board (RWQCB) staff, was completed by David Senn. A copy of the presentation will be distributed to meeting attendees and feedback should be directed to Jim Kelly. The draft Facilitator Scope of Work developed by Naomi Feger will be distributed by Jim Kelly to the Board. Jim Kelly and Ben Horenstein will work to schedule the next meeting with David Senn, and Dave Senn recommended that funding decisions should be included in future discussions.

Under agenda item **8b, BACWA response to 13267 Letter**, the Board requested that Jim Kelly return with a recommendation on managing data gathered for the 13267 requirements as well as the historical data.

Jim Kelly will schedule a meeting with the north Bay dischargers as part of the **Suisun Bay follow-up, agenda item 8c.**

For **agenda item 8d, the draft NNE Comment Letter** was distributed to attendees for review. Comments and feedback should be directed to Jim Kelly.

The BACWA and Special Programs 2012 – 2013 Budget and Workplan (agenda item 9) *was approved in a motion made by Mike Connor, seconded by Ann Farrell. The motion passed unanimously.*
It was noted that BACWA and CBC fee structures will be discussed at the 2012 Pardee Technical Seminar. The Finance Committee will meet with Jim Kelly and return to the Board at the May 24th meeting with a recommendation for hiring a Regulatory Program Manager. The Board requested that the Jim Kelly monitor Executive Director time devoted to Prop 50 and Prop 84 to determine whether a request for reimbursement would be necessary.

For agenda item **10a, Succession Planning**, Dave Williams provided background information on BACWA's current **ASC/SFEI Board Representation**. With the proposed merger of the SFEI and ASC governing boards, there has been a request that BACWA appoint a representative from each of the following types of agencies: a Bay discharger; a Central Valley discharger; and a stormwater agency. The Board agreed to try this approach, though they would reserve the right to review the decision and make any necessary changes to the appointments at a later date.

The Board requested that Jim Kelly schedule the next joint RWQCB staff/ BACWA Board meeting.

The next regular BACWA Board meeting will be held on May 24, 2012 at the EBMUD Treatment Plant Operations Center from 9 a.m. – 12 p.m.

The meeting adjourned at 11:00 a.m.

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

May 10, 2012

MEMO TO: Bay Area Clean Water Agencies Executive Board

MEMO FROM: D. Scott Klein, Controller, East Bay Municipal Utility District

SUBJECT: Nine Month 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, 2011 through March 31, 2012** (nine months of Fiscal Year 2011-2012). This report covers expenditures, cash receipts, and cash transfers for the following BACWA funds:

- Bay Area Clean Water Agencies (BACWA),
- BACWA Training Fund (Trng Fnd),
- Air Issues and Regulation Group (AIR),
- Bay Area Pollution Prevention Group (BAPPG),
- BACWA Legal Reserve Fund (Legal Rsrv),
- Water Quality Attainment Strategy (WQA CBC),
- BACWA Operating Reserve Fund (BACWAOpRes),
- Regional Water Recycling (RWR),
- BACWA Reserve (Reserve),
- Water/Wastewater Operator Training (WOT),
- Prop84 Bay Area Integrated Regional Water Mgmt (PRP84),
- WQA Emergency Reserve Fund (WQA Emerg),
- WQA Tech Action Fund (TechAction),
- CBC Operating Reserve Fund (CBC OpRsrv), and
- Prop50 Bay Area Integrated Regional Water Mgmt (PRP50)

Fund Balances as of month end 3/31/12

DESCRIPTION	BEGINNING FUND BALANCE 7/1/11	TOTAL RECEIPTS	TOTAL DISBURSEMENTS	ENDING FUND BALANCE 3/31/12	OUTSTANDING ENCUMBRANCES	UNOBLIGATED FUND BALANCE 3/31/12
BACWA	493,687	591,989	368,925	716,750	161,682	555,068
TRNG FND	251,387	789	5,000	247,176	-	247,176
AIR	26,584	88,849	60,273	55,159	52,552	2,607
BAPPG	19,711	79,620	45,670	53,661	10,423	43,238
LEGAL RSRV	301,664	953	-	302,617	-	302,617
WQA CBC	141,691	448,197	265,274	324,615	217,288	107,327
BACWAOPRES	151,785	480	-	152,265	-	152,265
RWR	16,608	52	-	16,660	-	16,660
RESERVE	120,000	-	-	120,000	-	120,000
WOT	93,270	142,315	176,000	59,585	-	59,585
PRP84	-	51,020	31,446	19,574	18,554	1,020
WQA EMERG	402,219	1,270	-	403,489	-	403,489
TECHACTION	251,387	794	-	252,181	-	252,181
CBC OPRSRV	162,899	514	-	163,413	-	163,413
PRP50	549,577	694,538	1,067,850	176,265	48,242	128,023
	2,982,470	2,101,382	2,020,439	3,063,412	508,742	2,554,670

BACWA Revenue Report for March 2012

DEPARTMENT	REVENUE TYPE	AMENDED BUDGET	CURRENT PERIOD			YEAR TO DATE				UNOBLIGATED
			DIRECT	INVOICED	JVS	DIRECT	INVOICED	JVS	ACTUAL	
Bay Area Clean Water Agencies	BDO Member Contributions	450,000	-	-	-	-	421,500	(1,500)	420,000	30,000
Bay Area Clean Water Agencies	BDO Fund Transfers	25,000	-	-	-	-	-	11,395	11,395	13,605
Bay Area Clean Water Agencies	BDO Interest Income	5,000	-	-	-	-	-	2,344	2,344	2,656
Bay Area Clean Water Agencies	BDO Assoc.&Affiliate Contr	162,000	-	3,000	-	-	156,750	1,500	158,250	3,750
BACWA TOTAL		**642,000**	**-**	**3,000**	**-**	**-**	**578,250**	**13,739**	**591,989**	**50,011**
BACWA Training Fund	BDO Interest Income	-	-	-	-	-	-	789	789	(789)
TRNG FND TOTAL		**-**	**-**	**-**	**-**	**-**	**-**	**789**	**789**	**(789)**
AIR-Air Issues&Regulation Grp	BDO Member Contributions	84,828	-	-	-	-	83,754	5,000	88,754	(3,926)
AIR-Air Issues&Regulation Grp	BDO Interest Income	-	-	-	-	-	-	95	95	(95)
AIR TOTAL		**84,828**	**-**	**-**	**-**	**-**	**83,754**	**5,095**	**88,849**	**(4,021)**
BAPPG-BayAreaPollutnPreventGrp	BDO Member Contributions	80,505	-	500	-	-	28,759	50,746	79,505	1,000
BAPPG-BayAreaPollutnPreventGrp	BDO Interest Income	3,079	-	-	-	-	-	115	115	2,964
BAPPG TOTAL		**83,584**	**-**	**500**	**-**	**-**	**28,759**	**50,861**	**79,620**	**3,964**
BACWA Legal Reserve Fnd	BDO Interest Income	-	-	-	-	-	-	953	953	(953)
LEGAL RSRV TOTAL		**-**	**-**	**-**	**-**	**-**	**-**	**953**	**953**	**(953)**
WQA-WtrQualityAttainmntStratgy	BDO Member Contributions	450,000	-	3,467	-	-	447,497	-	447,497	2,503
WQA-WtrQualityAttainmntStratgy	BDO Other Receipts	114,751	-	-	-	-	-	-	-	114,751
WQA-WtrQualityAttainmntStratgy	BDO Interest Income	1,600	-	-	-	-	-	700	700	900
WQA CBC TOTAL		**566,351**	**-**	**3,467**	**-**	**-**	**447,497**	**700**	**448,197**	**118,154**
BACWA OperatingRsrve Fnd	BDO Interest Income	-	-	-	-	-	-	480	480	(480)
BACWAOPRES TOTAL		**-**	**-**	**-**	**-**	**-**	**-**	**480**	**480**	**(480)**

BACWA Revenue Report for March 2012

DEPARTMENT	REVENUE TYPE	AMENDED BUDGET	CURRENT PERIOD			YEAR TO DATE				UNOBLIGATED
			DIRECT	INVOICED	JVS	DIRECT	INVOICED	JVS	ACTUAL	
Regional Water Recycling	BDO Interest Income	-	-	-	-	-	-	52	52	(52)
RWR TOTAL		-	-	-	-	-	-	**52**	**52**	**(52)**
WOT - Wtr/Wwtr Operat Training	BDO Member Contributions	150,000	-	24,000	-	-	148,746	(6,746)	142,000	8,000
WOT - Wtr/Wwtr Operat Training	BDO Interest Income	-	-	-	-	-	-	315	315	(315)
WOT TOTAL		**150,000**	-	**24,000**	-	-	**148,746**	**(6,431)**	**142,315**	**7,685**
Prop84BayAreaIntegRegnlWtrMgmt	BDO Interest Income	-	-	-	-	-	-	20	20	(20)
Prop84BayAreaIntegRegnlWtrMgmt	Agency Prefunding Admin Exp	-	-	-	-	-	29,500	21,500	51,000	(51,000)
PRP84 TOTAL		-	-	-	-	-	**29,500**	**21,520**	**51,020**	**(51,020)**
WQA Emergency Resrve Fnd	BDO Interest Income	-	-	-	-	-	-	1,270	1,270	(1,270)
WQA EMERG TOTAL		-	-	-	-	-	-	**1,270**	**1,270**	**(1,270)**
WQA Tech Action Fund	BDO Interest Income	-	-	-	-	-	-	794	794	(794)
TECHACTION TOTAL		-	-	-	-	-	-	**794**	**794**	**(794)**
CBC Operating Resrve Fnd	BDO Interest Income	-	-	-	-	-	-	514	514	(514)
CBC OPRSRV TOTAL		-	-	-	-	-	-	**514**	**514**	**(514)**
Prop50BayAreaIntegRegnlWtrMgmt	BDO Interest Income	-	-	-	-	-	-	1,207	1,207	(1,207)
Prop50BayAreaIntegRegnlWtrMgmt	BDO Administrative Expense	-	-	-	-	-	19,661	-	19,661	(19,661)
Prop50BayAreaIntegRegnlWtrMgmt	Contra Costa Regional Intertie	-	-	-	-	-	-	-	-	-
Prop50BayAreaIntegRegnlWtrMgmt	EBMUD Richmond RWP	-	-	-	-	-	-	-	-	-
Prop50BayAreaIntegRegnlWtrMgmt	Pacifica RWP	-	-	-	-	-	669,960	-	669,960	(669,960)
Prop50BayAreaIntegRegnlWtrMgmt	Montara Groundwater Project	-	-	-	-	-	3,710	-	3,710	(3,710)
Prop50BayAreaIntegRegnlWtrMgmt	Alameda Creek Phase 2 Fish	-	-	-	-	-	-	-	-	-
PRP50 TOTAL		-	-	-	-	-	**693,331**	**1,207**	**694,538**	**(694,538)**

BACWA Expense Report for March 2012

DEPARTMENT	EXPENSE TYPE	AMENDED BUDGET	CURRENT PERIOD				YEAR TO DATE				OBLIGATED	UNOBLIGATED
			ENC	PV	DA	JV	ENC	PV	DA	JV		
Bay Area Clean Water Agencies	BC-Collections System	25,000	(3,627)	3,627	-	-	9,656	15,344	-	-	25,000	-
Bay Area Clean Water Agencies	BC-Permit Committee	25,000	(3,758)	3,758	-	-	9,977	15,023	-	-	25,000	-
Bay Area Clean Water Agencies	BC-Water Recycling Committee	18,000	-	-	-	-	4,026	13,744	-	-	17,770	231
Bay Area Clean Water Agencies	BC-Biosolids Committee	5,000	-	-	-	-	-	-	-	-	-	5,000
Bay Area Clean Water Agencies	BC-InfoShare Groups	25,000	(2,695)	2,695	-	-	14,435	10,566	-	-	25,000	-
Bay Area Clean Water Agencies	BC-Laboratory Committee	7,000	-	-	2,151	-	-	-	2,151	-	2,151	4,849
Bay Area Clean Water Agencies	BC-Miscellaneous Committee Sup	61,000	(6,598)	6,598	12,000	-	25,619	19,980	12,000	-	57,599	3,401
Bay Area Clean Water Agencies	TS-Media Relations Support	-	-	-	-	-	-	-	-	-	-	-
Bay Area Clean Water Agencies	TS-Consultant Support	-	-	-	-	-	-	-	-	-	-	-
Bay Area Clean Water Agencies	LS-Regulatory Support	4,000	(340)	340	-	-	2,914	1,086	-	-	4,000	-
Bay Area Clean Water Agencies	LS-Executive Board Support	2,000	-	-	-	-	2,000	-	-	-	2,000	-
Bay Area Clean Water Agencies	CAS-CWAA	10,000	-	-	-	-	-	-	1,000	-	1,000	9,000
Bay Area Clean Water Agencies	CAS-CPSC	5,000	-	-	-	-	-	-	5,000	-	5,000	-
Bay Area Clean Water Agencies	CAS-PSI	500	-	-	-	-	-	-	500	-	500	-
Bay Area Clean Water Agencies	CAR-BACWA Annual Report	15,000	(1,470)	1,470	-	-	433	15,467	1,052	-	16,952	(1,952)
Bay Area Clean Water Agencies	CAR-BACWA Website Development/	10,750	(1,285)	1,285	-	-	5,745	3,756	1,220	-	10,720	30
Bay Area Clean Water Agencies	AS-BACWA Admin Expense	15,000	-	-	265	-	-	-	2,202	-	2,202	12,798
Bay Area Clean Water Agencies	CAR-Other Communications	5,000	-	-	-	-	-	-	-	-	-	5,000
Bay Area Clean Water Agencies	SP-BAPPG Contribution	50,000	-	-	-	-	-	-	-	50,000	50,000	-
Bay Area Clean Water Agencies	GBS-Contingency	88,950	-	-	15,000	-	-	-	25,000	-	25,000	63,950
Bay Area Clean Water Agencies	GBS- Meeting Support	17,000	(194)	194	143	-	527	473	8,846	-	9,846	7,154
Bay Area Clean Water Agencies	AS-Executive Director	139,000	(20,379)	20,379	-	-	37,858	101,082	-	-	138,940	60
Bay Area Clean Water Agencies	AS-Assistant Executive Directo	70,000	(9,877)	9,877	-	-	26,419	41,781	-	-	68,200	1,800
Bay Area Clean Water Agencies	AS-EBMUD Administrative Servic	40,000	-	-	-	-	22,075	17,925	-	-	40,000	-
Bay Area Clean Water Agencies	AS-Insurance	3,800	-	-	-	-	-	-	3,729	-	3,729	71
BACWA TOTAL		**642,000**	**(50,223)**	**50,223**	**29,558**	**-**	**161,682**	**256,226**	**62,699**	**50,000**	**530,608**	**111,392**
BACWA Training Fund	BDO Fund Transfers	-	-	-	-	-	-	-	-	5,000	5,000	(5,000)
TRNG FND TOTAL		-	-	-	-	-	-	-	-	**5,000**	**5,000**	**(5,000)**
AIR-Air Issues&Regulation Grp	BDO Administrative Expense	4,040	-	-	-	-	-	-	-	4,040	4,040	-
AIR-Air Issues&Regulation Grp	BDO Contract Expenses	80,790	-	-	-	-	52,552	55,733	500	-	108,785	(27,995)
AIR TOTAL		**84,830**	-	-	-	-	**52,552**	**55,733**	**500**	**4,040**	**112,825**	**(27,995)**
BAPPG-BayAreaPollutnPreventGrp	BAPPG-CE-Fog	20,800	-	-	-	-	3	18,996	81	-	19,080	1,720
BAPPG-BayAreaPollutnPreventGrp	BAPPG-CE-Mercury	8,500	(1,592)	1,592	-	-	3,332	3,708	-	-	7,040	1,460
BAPPG-BayAreaPollutnPreventGrp	BAPPG-CE-Pesticides	10,000	-	-	-	-	-	-	10,000	-	10,000	-
BAPPG-BayAreaPollutnPreventGrp	BAPPG-CE-Copper	9,000	(1,081)	1,081	-	-	3,100	2,809	-	-	5,909	3,091
BAPPG-BayAreaPollutnPreventGrp	BAPPG-CE-Pharmaceutical	7,499	-	-	-	-	-	-	-	-	-	7,499
BAPPG-BayAreaPollutnPreventGrp	BAPPG-CE-General P2	1,500	-	-	-	-	80	1,420	-	-	1,500	-
BAPPG-BayAreaPollutnPreventGrp	BAPPG-CE-Emerging Issues	8,000	-	-	-	-	2,000	-	-	-	2,000	6,000
BAPPG-BayAreaPollutnPreventGrp	BAPPG-CE-Other	11,000	-	-	-	-	1,909	4,842	-	-	6,750	4,250
BAPPG-BayAreaPollutnPreventGrp	BDO Administrative Expense	3,815	-	-	-	-	-	-	-	3,815	3,815	-
BAPPG TOTAL		**80,114**	**(2,673)**	**2,673**	-	-	**10,423**	**31,775**	**10,081**	**3,815**	**56,094**	**24,020**

BACWA Expense Report for March 2012

DEPARTMENT	EXPENSE TYPE	AMENDED BUDGET	CURRENT PERIOD ENC	CURRENT PERIOD PV	CURRENT PERIOD DA	CURRENT PERIOD JV	YEAR TO DATE ENC	YEAR TO DATE PV	YEAR TO DATE DA	YEAR TO DATE JV	OBLIGATED	UNOBLIGATED
WQA-WtrQualityAttainmntStratgy	WQA-CE-Technical Support	344,934	(11,764)	11,764	-	-	192,550	101,263	9,999	-	303,813	41,121
WQA-WtrQualityAttainmntStratgy	WQA-CE-Collaborations & Sponso	90,000	-	-	-	-	-	-	98,750	-	98,750	(8,750)
WQA-WtrQualityAttainmntStratgy	WQA-CE-Commun. & Reporting	47,000	(8,893)	8,893	-	-	23,183	23,817	-	-	46,999	1
WQA-WtrQualityAttainmntStratgy	WQA-CE-Other	100,000	-	-	-	-	1,555	21,446	10,000	-	33,001	66,999
WQA CBC TOTAL		**581,934**	**(20,657)**	**20,657**	**-**	**-**	**217,288**	**146,525**	**118,749**	**-**	**482,562**	**99,372**
WOT - Wtr/Wwtr Operat Training	BDO Administrative Expense	2,500	-	-	-	-	-	-	-	2,500	2,500	-
WOT - Wtr/Wwtr Operat Training	BDO Contract Expenses	140,000	-	-	86,500	-	-	-	173,500	-	173,500	(33,500)
WOT TOTAL		**142,500**	**-**	**-**	**86,500**	**-**	**-**	**-**	**173,500**	**2,500**	**176,000**	**(33,500)**
Prop84BayAreaIntegRegnlWtrMgmt	BDO Administrative Expense	-	10,009	9,991	-	-	18,554	31,446	-	-	50,000	(50,000)
PRP84 TOTAL		**-**	**10,009**	**9,991**	**-**	**-**	**18,554**	**31,446**	**-**	**-**	**50,000**	**(50,000)**
Prop50BayAreaIntegRegnlWtrMgmt	BDO Fund Transfers	-	-	-	-	-	-	-	-	21,500	21,500	(21,500)
Prop50BayAreaIntegRegnlWtrMgmt	BDO Administrative Expense	-	(45)	45	-	-	1,506	494	366	1,040	3,406	(3,406)
Prop50BayAreaIntegRegnlWtrMgmt	BDO Contract Expenses	-	-	-	-	-	46,736	18,576	-	-	65,312	(65,312)
Prop50BayAreaIntegRegnlWtrMgmt	Contra Costa Regional Intertie	-	-	-	-	-	-	-	50,000	-	50,000	(50,000)
Prop50BayAreaIntegRegnlWtrMgmt	Regional Conservation	-	-	-	-	-	-	-	18,500	-	18,500	(18,500)
Prop50BayAreaIntegRegnlWtrMgmt	EBMUD Richmond RWP	-	-	-	-	-	-	-	212,760	-	212,760	(212,760)
Prop50BayAreaIntegRegnlWtrMgmt	South Bay Advanced Regional RW	-	-	-	-	-	-	-	5,786	-	5,786	(5,786)
Prop50BayAreaIntegRegnlWtrMgmt	Pacifica RWP	-	-	-	-	-	-	-	673,117	-	673,117	(673,117)
Prop50BayAreaIntegRegnlWtrMgmt	Montara Groundwater Project	-	-	-	-	-	-	-	5,241	-	5,241	(5,241)
Prop50BayAreaIntegRegnlWtrMgmt	Alameda Creek Phase 2 Fish	-	-	-	-	-	-	-	60,469	-	60,469	(60,469)
PRP50 TOTAL		**-**	**(45)**	**45**	**-**	**-**	**48,242**	**19,070**	**1,026,240**	**22,540**	**1,116,093**	**(1,116,093)**

BAPPG Committee Report to BACWA Board

Meeting Date: May 24, 2012
Prepared By: Sarah Scheidt, City of Sunnyvale
BAPPG Committee Chair

Project Updates

Project	Update	Completion Date
General P2	2011 Pollution Prevention Reports received by the Regional Board have been uploaded to the RWQCB ftp site, under Dylan Garner's file. Dylan also posed a Draft truncated version of the draft review of the reports in terms of PCBs for the BAPPG steering committee to look at (see attached spreadsheet).	May 2012
Regional Outreach Campaign	• The Working group submitted a full project proposal for the EPA San Francisco Bay Water Quality Improvement Fund Grant Application on 5/4. The full proposal is posted to the Yahoo Group. • The consultant, Rocket Genius, is scheduled to submit a set of taglines to the Working Group for evaluation by May 18. The Working Group has developed and tested criteria for evaluating the taglines. The Steering Committee is scheduled to evaluate the taglines using these criteria on May 21. Following the Steering Committee evaluation, the top ranking designs will undergo focus group evaluation. After the tagline is selected, the logo development and selection process will begin. The Working Group anticipates completing the process in August. • BAPPG is considering hiring or designating a representative for the Working Group and Steering Committee / Executive Committee representation, other than the Chair.	Ongoing

Next BAPPG Meeting

June 6, 2012, 10am – 12 pm
Elihu Harris State Building
1515 Clay Street, 2nd Floor, Room 12
Oakland, CA

2011/2012

Discharger	PCB Notes	Permit Adopt Date
Central Contra Costa SD	1) Evaluated possible sources of PCBs and determined the PG&E electrical maintenance and laboratory facilities in Concord as a potential source. Facility inspected, no significant sources found. 2) Provided Comments to San Francisco Estuary Project's PCBs in Caulk Project to ensure proper disposal of potential PCB containing wastewater. 3) Household Hazardous Waste Collection Program collected and properly disposed of over 1,400 lbs of PCB-containing wastes in 2011.	R2-2007-0008
Millbrae	*All PCB congener data is uploaded to the attachment tab of the eSMR.* I'm not sure which eSMR to which they are referring.	R2-2008-0071
American Canyon	Determined no potential structures meeting the criteria as potentially containing PCBs. However, other sources include older fluorescent bulbs, industrial equipment recycling and waste service, machine shops and auto dismantlers, tower crane rental company, and sever transportation and auto repair sites. No PCB-specific actions.	R2-2006-0036
SF City & County (Oceanside)	Developed and implemented a PCBs control program for the Southeast Plant facility, but determined it would be most efficient with time/resources to implement this action plan city-wide. This plan includes an annual review of possible PCB sources and implementation of measures (if needed) to control such sources. Thus far, the San Francisco Estuary Partnership has completed the pilot project on PCBs in caulk. Otherwise, no new sources.	R2-2009-0062
SF City & County (Southeast, N. Point & Bayside)	Developed and implemented a PCBs control program for the Southeast Plant facility, but determined it would be most efficient with time/resources to implement this action plan city-wide. This plan includes an annual review of possible PCB sources and implementation of measures (if needed) to control such sources. Thus far, the San Francisco Estuary Partnership has completed the pilot project on PCBs in caulk. Otherwise, no new sources.	R2-2008-0007
Calistoga	Gave the current limits for this discharger, and indicated that all effluents thus far were below the required limit. Stated that attempts were being made to lower the detection limit by using better detection equipment. Plans for 2012 include identifying and correcting leaks from industrial equipment, as well as ensurement of proper disposal of materials generated from building demolition activities.	R2-2010-0104
Benicia	Gives a brief background on PCBs, as well as possible sources (in a very general sense). No sources of PCBs found at commercial or industrial facilities for this discharger's service area.	R2-2008-0011
Treasure Island (Navy)	Includes a PCB action plan, but so far, no PCB sources have been identified.	R2-2010-0001
Sunnyvale, City of	Inspectors have been trained to look for sources of PCBs, but have thus far found none. No pilot projects required by MRP are being conducted here.	R2-2009-0061
Yountville	Lists a few possible sources of PCBs for their treatment area. All effluent monitoring results have been below the method detection limit so far.	R2-2010-0072

Discharger	PCB Notes	Permit Adopt Date
St. Helena	Lists a few possible sources of PCBs for their treatment area. However, no discharge has occurred since the permit has become effective, so no samples have been collected thus far.	R2-2010-0105
South Bayside System Authority	Lists possible sources and known sources of PCBs. PCB levels in effluent currently being monitored. Intentions for 2012 include the tracking of regulatory requirements and monitoring of PCB effluent, implementation of a source control program, and collaboration with CWPPP to develop PCB reducing strategies.	R2-2007-0006
San Jose, City of	Lists possible sources of PCBs for the plant, including an assessment of the stormwater-related PCB control effects. PCBs have been incorporated into the pretreatment program plan for the plant.	R2-2009-0038
West County WWD	Lists possible sources of PCBs, but decided that there were no potential contributors to PCB levels in their effluent. It was also decided that private laterals be shut off and filled with one foot of concrete prior to demolition of any building in an attempt to prevent any PCBs from entering the sanitary sewer system.	R2-2008-0003
ConocoPhillips	Mentioned replacement of transformer in 1997, a potential source of PCBs. Stated there were no transformer leaks that could have contributed to PCBs in refinery treated effluent in 2011. As previously stated, all transformers that contained PCBs at regulated levels (>500 ppm) have been removed. The refinery continues to preferentially retire and replace existing transformers with lower levels of PCBs between 0 and 500 ppm. Three such transformers were removed and sent to a permitted disposal facility in 2011 (ID numbers PD:NTX-41, PD:NTX-42, and PD:NTX-43). ConocoPhillips has submitted a total of four quarterly samples from Effluent 002 for analysis of 209 PCB congeners using EPA Method 1668C. The data appears to indicate a trend towards fewer detects and fewer DNQ-qualified results over time. The last two test reports (from October 2011 and early January 2012) were non-detect for all 209 congeners. ConocoPhillips. working with Vista analytical to understand how to interpret this apparent trend.	R2-2011-0027
Richmond	Most problematic areas involving PCBs have been gone for years now, and most of the problem comes from inflow and infiltration, but that is being remedied for a variety of reasons.	R2-2008-0003
Novato Sanitary District	No pilot project is located here, and thus PCBs are not considered a polluatant of concern. Some monitoring was done of PCBs, all returned with ND.	R2-2010-0074
East Bay MUD	PCB concentrations are continuously being tracked in the collection systems as well as monitored targeted areas to identify potential sources of PCBs. This is also being done obtain flow data that will be used to calculate PCB loadings.	R2-2010-0060
SF International Airport	Planned for this next year: Identification and evaluation of controllable sources of PCBs, such as major construction projects.	R2-2007-0058
Shell Martinez Refinery***	Primary possible sources of PCBs included in effluent are listed. A series of source minimization practices have been put into effect to minimize PCB levels in effluent. Thus far, PCB concentration have been in compliance with permit limits.	R2-2006-0070

Discharger	PCB Notes	Permit Adopt Date
Dublin San Ramon	Reviewed sampling data and determined there are no potential contributors of PCBs to treatment plant. They find it highly unlikely that any PCBs would find their way into the sanitary sewer system, even during building demolition, and eem that no PCB control program is necessary at this time.	R2-2006-0054
Chevron Chemical CO	Self monitoring data has so far consistently returned ND for all PCB measurements. Identifies possible major contributors to PCB levels in effluent, but even so PCBs are not identified as a "pollutant of concern".	R2-2011-0049
South San Francisco, City of	So far, inspectors have not found/identified any PCB containing equimpent, but will continue searching.	R2-2008-0094
Fairfield Suisun	Stormwater pumpstations are being shut down during the dry season and the flow is diverted to the wastewater collection and treatment system for additional monitoring for PCBs.	R2-2009-0039
Palo Alto, City of	The RWQCP pretreatment staff confirmed that there are no industrial sources of PCB containing material that may enter the sanitary sewer. Discussed plans to deal with PCBs in stormwater from buildings with PCB containing sealants, as well as a pilot diversion of stormwater to POTW for treatment.	R2-2009-0032
San Mateo, City of	They have supplied data in compliance with the permit that has been instated. Inspector training will soon be updated to include a module on PCBs.	R2-2007-0075
Rhodia Martinez	Voluntarily conducted a PCB source reduction. Removed the remaining three PCB transformers and shipped them off-site for proper disposal, and have since been replaced, eliminating the PCB source that could be discharged to the WWTP.	R2-2010-0058
Burlingame	z_ No mention of PCBs.	R2-2008-0008
C&H Sugar Co. Inc. (AND Crockett Community Services District)	z_ No mention of PCBs.	R2-2007-0032
Central Marin Sanitation Agency	z_ No mention of PCBs.	R2-2007-0007
City of Pacifica, Calera Creek	z_ No mention of PCBs.	R2-2006-0067
Crockett Cogeneration	z_ No mention of PCBs.	R2-2010-0073
Crockett Community Services District (AND C&H Sugar Co. Inc.)	z_ No mention of PCBs.	R2-2007-0032

Discharger	PCB Notes	Permit Adopt Date
Delta Diablo	z_ No mention of PCBs.	R2-2009-0018
Great America**	z_ No mention of PCBs.	R2-2009-0052
Las Gallinas Valley	z_ No mention of PCBs.	R2-2009-0070
Livermore, City of	z_ No mention of PCBs.	R2-2006-0055
Napa Sanitation District	z_ No mention of PCBs.	R2-2011-0007
Petaluma, City of	z_ No mention of PCBs.	R2-2011-0003
Pinole (3/07)	z_ No mention of PCBs.	R2-2007-0024
Port Costa	z_ No mention of PCBs.	R2-2008-0005
Rodeo Sanitary District	z_ No mention of PCBs.	R2-2006-0062
Sanitary District No. 5 (Paradise Cove & Main Plant)	z_ No mention of PCBs.	R2-2006-0037
Sausalito Marin	z_ No mention of PCBs.	R2-2007-0054
Sewerage Agency of Southern Marin Permit	z_ No mention of PCBs.	R2-2007-0056
Sonoma Valley SD	z_ No mention of PCBs.	R2-2008-0090
Tesoro	z_ No mention of PCBs.	R2-2010-0084
Valero Benicia Refinery	z_ No mention of PCBs.	R2-2009-0079

Collection Systems Committee Report to BACWA Board

May 15, 2012
From: Andy Morrison, Committee Chair
Prepared By: Andy Eggleston

Committee Request for Board Action:

None

Highlights of New Items Discussed and Action Items

Changes to PG&E Cross-Bore Program

Greg Scoby of Frontline Energy Service gave a presentation at the May 10 Committee meeting about recent changes to Pacific Gas and Electric's (PG&E's) cross-bore program. Frontline Energy Services has recently assumed management of the program, and is developing a process to diligently identify, fix, and document all gas services lines installed using trenchless construction techniques that may have been inadvertently bored through a sewer line. The labor-intensive process includes a detailed review of construction records to identify service lines of concern, notification of applicable customers, closed-circuit television (CCTV) inspection of sewer laterals at each of the addresses identified (with pre-cleaning of lines where necessary), careful review of CCTV footage, and immediate repair of any identified cross-bores. An initial list of copper service lines known to have been installed using trenchless techniques has already been created and was previously provided to the Collection Systems Committee. This list does not include trenchless construction using plastic or unknown materials, only copper.

Frontline Energy Services is working on setting up contracts with CCTV and sewer cleaning service providers and finalizing door-hangers and letters to notify applicable customers of the potential risk. The notification materials will include contact information for customers to call in case they have a sewer back-up and need a line cleaned before the absence of a cross-bore has been confirmed. Even with an aggressive schedule, it was estimated that the program could take 10 years or longer to complete.

Greg Scoby indicated that he hoped that Frontline Energy Services representatives would be able to work with each agency individually to ensure compliance with agency standards and requirements, and to provide certain relevant information gathered during the inspection process (e.g., utility map corrections, blocked lines identification, or CCTV footage). The program is starting in San Francisco focusing on high density areas first, such schools and churches. Agencies will be contacted in advance of any work being conducted in their service area.

SSS WDR Revisions Update

The State Water Board plans to prepare an amended Monitoring and Reporting Program (MRP) for the Sanitary Sewer System Waste Discharge Requirements (SSS WDR), to be released in September 2012. These proposed changes and were discussed briefly during the May 10 Collection Systems Committee meeting, and a plan for participating in the revision process is being developed.

New Committee Chair Announced

Dan Stevenson with the City of Sunnyvale was announced as the new chair of the Collection System Committee.

Upcoming Conferences and Meetings

There are a number of upcoming collection system-related events, including:

- May 15 – The Natural Resources Defense Council was scheduled to present a proposal at the State Water Board hearing for the State to require wastewater agencies to implement volumetric pricing by 2018 to encourage water conservation: http://www.waterboards.ca.gov/board_info/agendas/2012/may/051512_5.pdf
- May 22 – Creek and Waterway Protection and Spill Mitigation Training (Foster City): http://www.cwea.org/scv/
- May 22 – National Association of Sewer Service Companies (NASSCO) Pipeline Assessment & Certification Program (PACP) recertification class (Burlingame): http://nassco.org/training_edu/te_traincal_pacp.html
- June 6 – Collection System Technologies Vendor Fair (Union Sanitary District): http://cwea.org/sfb/
- June – Sanitary Sewer Overflow (SSO) Volume Estimation (hands-on training): www.cwea.org/conferences

Next BACWA Collection Systems Committee Meeting

Our next meeting will be held on Thursday, June 7, 2012, from 1:30 – 3:00 PM at the Boy Scouts Facility in San Leandro.

Lab Committee – Report to BACWA Board

Reporting Date: May 17, 2012
Executive Board Meeting Date: May 24, 2012
Prepared By: Kenneth Lee, Committee Chair

Committee Request for Board Action:

None

Business Discussed and Action Items:

Business	Discussion
EPA Method Update Rule (MUR)	The EPA Administrator, Lisa P. Jackson, signed the final (2011) rule on April 17, 2012 and EPA is submitting the rule for publication in the Feral Register. Once the rule is published in the Federal Register, there are 45 days to comply with the rule. Some highlights in the MUR: 1. EPA 1668C is excluded from the MUR. However 1668C is still the method for the PCB Permit Amendment for data gathering. 2. EPA 1664B is included but EPA has not withdrawn 1664A. EPA 1664A is in lots of current permits so EPA is keeping most likely until the next MUR cycle. EPA encourages the use of EPA 1664B. 3. EPA 624 includes Acrolein and Acrylonitrile. Preservation requirement (pH 4-5) is different than other VOAs. Additional samples may be required. 4. EPA has changed how approved methods that are published by Standard Methods are identified. EPA now approves only the most recent version of a method published by Standard Methods by listing only one version of the method with the year of publication designated by the last four digits in the method number (e.g., Standard Method 2320 B-1997). This may be an issue if one has no access to the on-line Standard Methods. 5. Twelve minimum quality control elements, where applicable, are required to incorporate into SOP for compliance analyses. a. DOC b. MDL c. Method Blank d. LCS e. MS/MSD f. Internal/surrogate standards g. Calibrations (initial and continuing) h. Control Charts i. Corrective Action j. QC acceptance criteria k. Definitions of prep and analytical batches that may drive QC frequencies l. Minimum frequency for conducting all QC elements

Permits Committee – Report to BACWA Board

Reporting Date: 5/17/12
Executive Board Meeting Date: 5/24/12
Committee Chair: Jim Ervin

Committee Request for Board Action: None.

Adoption of Permits/Permit Amendments –

Jun – Central Marin Sanitation Agency, Shell Martinez Refinery
July - SBSA

NPDES Permit Timing and Monitoring Frequency: Due to some new language being adopted in NPDES permits, it's important, prior to the reissuance of an NPDES permit, to review the monitoring frequency of constituents in comparison with the anticipated *effective* date of the permit to make sure that extra sampling is not needed. **For example**, if a permit effective date is April 1 in Year X, and monitoring of a constituent such as dioxin-TEQ is required twice per year – once during Nov-Apr and once during May-Oct, and under the previous permit a dioxin-TEQ sample was run in January of Year X, the federal Discharge Monitoring Report (DMR) for the reissued permit will require a second wet weather sample during the month of April. To prevent this extra sampling, the agency could wait and only sample during the wet season in April of Year X (easier), or alternatively seek special language for the first sampling event of the new permit to begin in the next wet/dry (as applicable) season (not as easy).

Nutrients 13267 Group Sampling Plan: The nutrient 13267 Sampling and Analysis Plan (SAP) was submitted to Water Board by 30 April. The BACWA SAP requested some modification of the 13267 monitoring requirements:

- Effluent nutrient sampling remain the same, but influent nutrient sampling be restricted to TKN, Nitrate, Nitrite, and Total Phosphorous, as opposed to the entire suite of 15 parameters.
- Data review after 6 months of data collection for possible mid-course correction.
- Reduced monitoring requirements for three agencies to reduce costs: City of Burlingame, City of St. Helena, and Port Costa.
- Eliminate monitoring for Total Dissolved Nitrogen since this parameter can be calculated by adding the other soluble nitrogen parameters. Allow monitoring of NO3 and NO2 as one parameter.
- BACWA also raised concern about how effluent temperature and pH data would be used for this study.

All agencies must submit a general description of historical nutrient data available since 1975 via FTP submission to Water Board by 1 June. Karin North drafted a historical summary template that will be sent to agencies.

Data collection will begin in July. A draft Excel reporting template is being circulated. This template will be sent to David Senn, Christina Grosso and Tong Yin after BACWA agency review.

Nutrient Numeric Endpoint (NNE): A NNE meeting was held at Water Board on 29 March. BACWA Executive Director drafted, and sent for BACWA review, a comment letter on the Draft Nutrient Strategy regarding process and priorities for scientific evaluation. The NNE workgroup expects to release a work plan this summer. Water Board, BACWA, and SFEI are in discussion about hiring a facilitator to manage policy development while science proceeds.

Trienniel Review: Triennial Review comments are posted at: http://www.waterboards.ca.gov/sanfranciscobay/basin_planning.shtml#triennialreview BACWA commented on 17 April that the following Triennial Review projects should be given priority: 1) Toxicity Testing Requirements, 2) NNE nutrient and DO objectives, 3) Suisun Marsh objectives for DO, Nutrients, and Mercury, 4) Update Wetlands Policy.

Toxicity Policy / Toxicity Workgroup: A third Toxicity Workgroup meeting will be held at EBMUD in late May. This workgroup will focus on 1) TRE requirements as expressed in each agencies Generic TRE Workplan, and 2) The new draft State-Wide Toxicity Policy and implementation strategy. The draft State policy has been peer reviewed and the latest version is posted: http://www.swrcb.ca.gov/water_issues/programs/state_implementation_policy/tx_ass_cntrl.shtml

Sanitary Sewer Overflow (SSO) Waste Discharge Requirement. State Board has abandoned its proposed revisions to the SSO WDR as a result of comments and concerns from stakeholders. However, State Water Board can still make changes to SSO monitoring and reporting program requirements.

Next BACWA Permits Committee Meeting: Tuesday, June 12th, 2012, at EBMUD Plant Library.

Recycled Water Committee Report to BACWA Board

May 24, 2012

Prepared By: Cheryl Muñoz
Committee Chair

Committee Requests for Board Action:

None.

Business Discussed and Action Items:

Business	Discussion
BAIRWMP and Prop 84 Updates	BAIRWMP Updates • Planning Grant o The draft Governance chapter has gone through internal review and needs some revisions before being distributed for "targeted" review. o The project form on the website will be adjusted to a web-based format. o The Notice of Intent has been published in the SF Chronicle in accordance with Prop. 84 guidelines. o A stakeholder engagement planning meeting was held on 4/17. • Prop. 84 Implementation Grant o BACWA Board approved the implementation agreement template for local project sponsors. o First project quarterly reports have been completed. o Local project sponsors need to begin preparing their first invoice to DWR for project costs incurred.
Legislative/Regulatory Updates	AB 2398 e (Water Recycling Act of 2012) • The bill passed out of the Assembly's Environmental Safety and Toxic Materials Committee on 5/1, and will go to the full Assembly probably in June. • Amendments have been drafted to clean-up the document to ensure safety and shore-up procedural disconnects that will be incorporated into a revised draft: o Adding a section on Aquifer Storage and Recovery (ASR) of potable water (not wastewater) o Adding language confirming the authority of local groundwater agencies o Adding language on overflow from impoundments (recycled water impoundments that are managed vs. unmanaged and spilling (NPDES permit) o Adding language to allow CDPH to issue permits for advanced treated recycled water. Enforcement language would be clarified. • There are still outstanding issues for discussion: o This bill as written reclassified tertiary recycled water outside of the Porter-Cologne. Secondary classification will be put back in. o CDPH's ability to delegate authority to local agencies o Administrative appeal process for CDPH permits o Specificity of CDPH permit process • Fees • The Committee will continue discussion on this bill at the 6/6 Committee meeting.

	Recycled Water Policy • The SWRCB released draft amendments to the Recycled Water Policy in response to the June 2010 report from the Science Advisory Panel on CECs. • The Committee will be reviewing and discussing the SWRCB's proposed updates at the 6/6 Committee meeting and determine if comments will be drafted. Water Infrastructure Finance and Innovation Act of 2012 • Low-interest loan program that would supplement the State Revolving Fund. • Would allow for larger loans (larger projects) and public/private partnerships.
FY 12/13 Committee Budget	• The main activity for the Committee in FY 12-13 will be preparation of the recycled water section of the BAIRWMP Update. The BACWA Board approved funds in April for consultant coordination services for this activity.
Committee Projects	Recycled Water Landscape Guide • Draft anticipated in May. BACWA Recycled Water Survey • Survey report will be completed in June.
Next RW Committee Meeting	Wednesday, 6/6/12 from 10:00 am to 12:00 pm EBMUD Headquarters, 2nd Floor Small Conference Room.

Director's Report to the Board

April 28, 2012 – May 22, 2012
Prepared for the May 24, 2012 Executive Board Meeting

STARTUP: Still to working to access BACWA's electronic files on Box.net cloud storage.

NUTRIENT 13267 LETTER RESPONSE: Followed up with RWQCB; reviewed RWQCB draft response with RMC and Jim Ervin, Permit Committee Chair. Discussed BACWA comments on RWQCB draft response with Water Board Staff. Reached agreement, and will resubmit sampling plans base on the agreement. Coordinated with WSPA. Worked with Karin North to prepare a Nutrient Historic Reporting Template and distributed to agencies.

NUTRIENT STRATEGY COMMENT LETTER: Received input on draft; incorporated comments and submitted comment letter.

RWQCB/BACWA MEETING: Setting up the next meeting is in progress.

SUISUN BAY ISSUES: Attended SWAMP Suisun Bay Meeting, and set up and chaired north Bay discharger meeting on May 22, 2012. Will provide update at May 24th Board meeting under agenda discussion item 10b.

SACRAMENTO REGIONAL NEW DRAFT NPDES PERMIT: Reviewed draft permit and initiated preparation of comment letter (due June 15, 2012, along with any presentation for the July 18 SWRCB Workshop). Expect to engage regional experts in preparation of the comment letter. Contacted Stan Dean, and discussed matter with him.

DRAFT POLICY FOR TOXICITY ASSESSMENT AND CONTROL: Participated in conference call and working with Permit Committee Chair and BACWA Chair on how to respond.

BAPPG: Followed up with Committee Chair regarding consultant selection.

TECHNOLOGY RESEARCH & DEVELOPMENT: Followed up with Isle Utilities and the Orange County Sanitary District representative to their Technology Approval Group (TAG). A copy of the May 15, 2012 TAG meeting notes will be distributed to the BACWA Board. Also followed up with WERF and will keep the Board informed of activities.

MEETINGS ATTENDED: Permits Committee, RMP Modeling Strategy Group, SWAMP Suisun Bay Meeting, RWQCB Meeting.

LAYPERSON'S GUIDE TO WASTEWATER: Stan Dean would like BACWA to consider contributing to this project; some who received the request have declined the invitation to support this project. (*see attachments*).

NEXT MONTH

NUTRIENT 13267 LETTER RESPONSE: Follow up with RWQCB to resubmit sampling plan.

RECYCLED WATER POLICY AMENDMENT COMMENT LETTER: Continue work with Board and Committee Chair to consider commenting on Proposed Amendment to the Recycled Water Policy to Incorporate Monitoring Requirements for Constituents of Emerging Concern.

COMMENT ON SACRAMENTO REGIONAL PERMIT: Prepare comment letter on draft permit.

SUISUN BAY ISSUES: Follow-up on May 22, 2012 Meeting; support north Bay POTW's.

RWQCB/ BACWA JOINT MEETINGS: Finalize RWQCB/BACWA Meeting Schedule

NPDES PERMIT PETITION DISMISSAL: Consult co-petitioners and add dismissal to June agenda for Executive Board approval.

From: John Pastore <jpastore@dudek.com>
Date: Fri, 18 May 2012 16:11:19 -0700
To: "Dean. Stanley (SDA)" <deans@sacsewer.com>, John Pastore <jpastore@scap1.org>, James Kelly <jkelly@bacwa.org>, Debbie Webster <eofficer@cvcwa.org>, Deb Welch <dwelch@casaweb.org>, Bobbi Larson <blarson@somachlaw.com>, "eallan@cwea.org" <eallan@cwea.org>
Subject: RE: Laypersons Guide to Wastewater

Hi Stan
I applaud you for taking the initiative to think about our future generations and how important education is to our industry. A few years ago I brought up the idea of SCAP becoming involved in educating school children and developing educational programs related to wastewater but unfortunately I was met with much resistance from my Board at the time. Their main concern was that we were infringing on CWEA's charter and also the fact that many of our larger agencies already had their own educational programs. Although I will discuss your proposal, I kind of doubt that the Board's position will have changed significantly to the point that they would want to expend funds for this. I will let you know, but I personally think it is a great idea.

John

From: Dean. Stanley (SDA) [mailto:deans@sacsewer.com]
Sent: Friday, May 18, 2012 7:20 AM
To: John Pastore; jkelly@bacwa.org; Debbie Webster; dwelch@casaweb.org; Roberta Larson; eallan@cwea.org
Subject: Laypersons Guide to Wastewater

John, Jim, Debbie, Debbie, Bobbi, and Elizabeth,

I have always been amused that the Water Education Foundation (WEF) really does very little with wastewater education. Last month I was browsing their collection of laypersons guides and noticed that there was nothing on wastewater. It occurred to me that it really would be beneficial if WEF took a step into our world, and a good first step would be to prepare a Laypersons Guide to Wastewater.

Attached is an outline that I put together and transmitted to Rita Sudman, Executive Officer of WEF. She is interested in discussing how to get started and raise the funding for this project. I am inclined to have SRCSD kick in a pretty good chunk of money, but it would be helpful if a few others would too. I'll be meeting with Rita on May 30 or 31 to get a better idea of the cost and schedule. One way to help keep costs reasonable would be to provide much of the raw text to WEF, and I am personally willing to do some writing.

I know that there are publications put out by Water Environment Federation (the other WEF) that address wastewater fundamentals, but the outline I put together goes in a slightly different direction, setting more policy discussion. (Take a look at the policy topics in Section 6.) I also think it is good for WEF to step up and take some ownership for wastewater education.

I am sending this e-mail to see if you think there might some support among us wastewater folks.

What do you think?

Feel free to pass this on to others who might be interested.

Stan Dean, District Engineer
Sacramento Regional County Sanitation District
Sacramento Area Sewer District
10060 Goethe Road, Sacramento, CA 95827
(916) 875-9101
deans@sacsewer.com

Laypersons Guide to Municipal Wastewater in California

Outline

Draft - April 16, 2012

Part 1 – Introduction

Provide a very basic overview of where wastewater comes from, how it gets to treatment plants and where it ends up. Use some fun, simple graphics.

Origins of Municipal Wastewater

Differentiate municipal wastewater from stormwater and agricultural return water and other liquid waste streams. Recognize toilets, showers, and sinks from homes and businesses.

Collection and Conveyance

Briefly discuss the vast networks of underground pipes and pump stations that most people never see.

Treatment

At this point don't do much more than acknowledging that treatment plants are sophisticated marvels of modern technology. Refer to Part 2 for more information.

Disposal and Reuse

Discuss the various places treated wastewater goes and how it is subsequently used. Play up the water cycle.

Part 2- How Wastewater Treatment Works

Constituents in Wastewater

- Nutrients
- Mircoorganisms
- Salts
- Metals
- Natural Organic Matter

- Synthetic Organic Compounds

Need to discuss what it typically found in wastewater and the important of the constituents to human health and the environment.

Include discussion on <u>particles</u> in wastewater, particularly their composition and size. This information is essential to setting up the discussion on how treatment works.

Include discussion on <u>concentration</u> of constituents. Need to be clear the presence or absence of the wastewater constituents is not the issue, rather it is the amounts that are present. This is important in setting up later discussion on "environmental relevance."

Preliminary Treatment – Getting the Big Stuff Out

Discuss how bar screens and grit tanks work.

Primary Treatment – Removing Particles by Gravity, Floating and Sinking

Discuss how primary sedimentation tanks work.

Secondary Treatment – Biological Treatment

Discuss the basics of growing microorganisms to clean wastewater. There are many different types of biological systems. Activated sludge, the workhorse of the industry, will need to be discussed. But other "industrial style" biological systems and even "natural systems" will should be noted.

Nutrient Removal

Discuss different ways nutrients can be removed from wastewater.

Filtration

Discuss how filtration works. Note some of the more common types of filtration systems that can be used.

Disinfection

Discuss how different types of common disinfection alternatives work, namely chlorine and untraviolet light. Also note that increasing attention is being given to ozone.

Part 3 – Regulatory Framework

Water Quality Laws (the Federal Clean Water Act, and California's Porter Cologne Water Quality Control Act)

- Key principles in Water Quality Laws

  This section should lay out some of the underlying principles of the Federal and State laws. For example, each water body has unique ecosystem characteristics and unique uses; discharges are regulated with consideration of the unique uses and water body characteristics, permits specify the quality of the discharge and generally not the technology; scientific knowledge will change over time so the water quality criteria and permitted discharges must evolve; and need to balance costs, ecosystem needs and societal needs.

- Key provisions in Water Quality Laws

  Review of the major provisions of the laws. For example, issuing discharge permits, setting water quality criteria, assessing achievement of water quality goals, pretreatment programs, and enforcement of water quality laws.

Primary Regulatory Agencies

- EPA
- State Water Resources Control Board
- Regional Water Quality Control Boards

  Discuss the roles and responsibilities of each of the above agencies. With a lesser degree of detail, identify other regulatory agencies that have notable roles.

Water Quality Standards

- Beneficial Uses
- Water Quality Criteria

  Explain how water quality standards are defined as beneficial uses <u>in association with</u> water quality criteria that must be met to achieve the beneficial use. For example, freashwater aquatic life is a beneficial use, and a cyanide concentration of 22 micrograms per liter as a one hour average is a criteria that must be met to support freashwater aquatic life. List the various beneficial uses and provide a few examples of commonly used water quality criteria.

Basin Plans

Discuss the scope of Basin Plans and how they are prepared and used in California.

Listings of Water Quality Impairment

Discuss how achievement of water quality standards is assessed. Specifically note the 303(d) list of impaired water bodies.

Industrial Pretreatment Programs

Provide a brief overview of requirements for industrial pretreatment programs.

Part 4 - Permits for Wastewater Treatment Plants

Permits for Discharge to Waterways

- Process for Obtaining Permits
- Key parts of a Permit

Provide an overview of the procedural requirements for obtaining permits to discharge to waterways. Then note the various components of a permit such as effluent limitations, receiving water limitations and the monitoring and reporting provisions.

Permits for Discharge to Land

- Process for Obtaining Permits
- Key parts of a Permit

The Clean Water Act does not address discharges to land, but California law does. Briefly review differences in permitting municipal wastewater discharges to water versus land.

Permits for Water Recycling

Don't go into much detail on this but note key regulatory provisions and point the reader towards resources for more information.

Part 5 – Case Studies

Highlight several real examples of different types of wastewater programs.

Example of an Inland Surface Water Discharge

Example of an Ocean Discharge

Example of a Discharge to Land

Example of a Surface Water Monitoring and Reporting Program

Part 6 – Special Topics

> *This is an important section that should introduce the reader to a variety of key policy issues that will continue to be important as we move into the future. Some possible topics are listed below.*

Dealing with Uncertainty and the Evolution of Scientific Understanding.

Constituents of Emerging Concern

The Role of Cost in Wastewater Decision Making

Diminishing Role of Federal and State Governments in Funding Wastewater Infrastructure

Is Our Water Quality Getting Better or Worse Over Time?

Public Perception Issues

APPENDIX A – GLOSSARY OF WASTEWATER TERMS

APPENDIX B – WASTEWATER PROFESSIONALORGANIZATIONS AND ADDITIONAL RESOURCES

BACWA CHAIR AUTHORIZATION REQUEST

FILE NO.: 12,448 & 12,730

DATE: May 18, 2012

TITLE: Sacramento Regional Permit Comments Assistance

RECOMMENDED ACTION

Executive Board Chair authorization to obtain consultant support for Sacramento Regional Permit Comments assistance to be completed by June 30, 2012 by taking the following actions:

1) Utilize current as needed support contract with Larry Walker Associates in an amount not to exceed $9,900 from CBC Contingency/Other FY 2011-12, File 12,448.

2) Execute an agreement with Somach Simmons & Dunn in an amount not to exceed $9,900 from CBC Contingency/Other FY 2011-12, File 12,730.

SUMMARY

These actions will provide access to consultant assistance with preparation of comments on the Sacramento Regional Permit. This work will be carried out under the supervision of the Executive Director.

FISCAL IMPACT

Funds are available for these actions under the CBC Contingency/Other line item of the FY 2011-12 Budget.

ALTERNATIVES

No other alternatives were considered as this action is consistent with BACWA contracting policies.

Attachments:

Approved By:	Date:
Ben Horenstein, BACWA Executive Board Chair	5/18/2012

BACWA EXECUTIVE BOARD ACTION REQUEST

AGENDA NO.: 8
FILE NO.: 12,731
MEETING DATE: May 24, 2012

TITLE: Grant Agreement between BACWA and the State Coastal Conservancy to help fund Administration of the Bay Area Prop 84 Grant

☐ **MOTION** ☒ **RESOLUTION** ☐ **DISCUSSION**

ACTION UNDER CONSIDERATION

Board approval of the following is requested:

A resolution authorizing the BACWA Executive Board Chair to execute an agreement with the State Coastal Conservancy (SCC) to provide $50,000 in grant funding to BACWA to assist with administration of the $30 million DWR Prop 84 Integrated Regional Water Management (IRWM) Grant to BACWA.

SUMMARY

In September 2010 and April 2012 the BACWA Executive Board adopted resolutions agreeing to serve as the Prop 84 grantee on behalf of the Bay Area Project Sponsors and authorizing the Chair to execute all Implementation Agreements necessary to manage the distribution of Prop 84 Grant funds to Project Sponsors, including the SCC. Project Sponsors are providing administrative funding on an advance basis to limit BACWA's financial exposure for costs, and that administrative funding in turn will be eligible for grant reimbursement from DWR after actual administrative costs are incurred.

The SCC is contributing its share of administrative funding on a non-reimbursable basis, unlike other project sponsors, to allow slightly more DWR grant funding to flow to the SCC projects. The SCC grant agreement has been reviewed by BACWA counsel and several edits have been made to address the common ground in this SCC grant agreement and the Conservancy's Implementation Agreement with BACWA.

FISCAL IMPACT

There is no fiscal impact to BACWA as Bay Area Project Sponsors are required to contribute to the Prop 84 account to cover grant administration costs.

ALTERNATIVES

This action does not require consideration of any alternatives.

ATTACHMENTS

Resolution 12731
Grant Agreement between SCC and BACWA

BAY AREA CLEAN WATER AGENCIES

Resolution No. 12731

Resolution of the Bay Area Clean Water Agencies

Approving the Grant of Funds from the State Coastal Conservancy

To Assist with Administration of California Department of Water Resources (DWR) Proposition 84 Integrated Regional Water Management (IRWM) Grant No. 4600009715 to the Bay Area

WHEREAS, the Legislature of the State of California has established the State Coastal Conservancy ("Conservancy") under Division 21 of the California Public Resources Code, and has authorized the Conservancy to award grants to public agencies and nonprofit organizations to implement the provisions of Division 21; and

WHEREAS, the Conservancy awards grants for projects that it determines are consistent with Division 21 of the Public Resources Code and with the Conservancy's Strategic Plan and that best achieve the Conservancy's statutory objectives, in light of limited funding; and

WHEREAS, on behalf of many Bay Area local public agencies the Bay Area Clean Water Agencies (BACWA) applied for and was awarded the above referenced IRWM Grant in 2011 from DWR in the amount of $30,093,592, covering over 30 individual projects to benefit the region, including three projects sponsored by the Conservancy, which collectively will be complex to administer; and

WHEREAS, at its November 10, 2011 meeting, the Conservancy adopted a resolution authorizing a grant to Bay Area Clean Water Agencies ("grantee") to assist with the administration of the above referenced IRWM Grant ("the project"). The resolution was adopted by the Conservancy pursuant to and is included in the Conservancy November 10, 2011 staff recommendation, a copy of which is on file with the grantee and with the Conservancy; and

WHEREAS, the Conservancy requires that governing body of the grantee certify through a resolution that it approves the award of Conservancy grant funding and authorizes the execution of a grant agreement in substantially the form of the agreement attached to this resolution as Exhibit 1.

NOW, THEREFORE, be it resolved that the grantee (BACWA) hereby:

1. Approves the award of grant funding from the Conservancy for the project.

2. Acknowledges and agrees that it will obtain sufficient funds through the contributions of the other Bay Area local public agencies referenced above to complete the project in accordance with the grant agreement (Exhibit 1).

3. Agrees to be bound by all terms and conditions of the grant agreement (Exhibit 1).

4. Authorizes any person holding any of the following positions with the grantee to act as a representative of the grantee, to negotiate and execute on behalf of the grantee all agreements and

instruments necessary to complete the project and to comply with the Conservancy's grant requirements, including, without limitation, the grant agreement: Executive Board Chair and/or Executive Director.

APPROVED AND ADOPTED _____, 20___.

I, the undersigned, hereby certify that the above Resolution No._____ was duly adopted by the grantee by the following roll call vote:

Ayes:

Noes:

Absent:

(Clerk)

[1/03]

Agreement between the State Coastal Conservancy and Bay Area Clean Water Agencies to Assist with Administration of California Department of Resources (DWR) integrated Regional Water Management (IRWM) Grant No. 4600009715.

Grantee's full, legal name:	Bay Area Clean Water Agencies
Taxpayer ID Number:	94-3389334
Address:	P.O. Box 24055, MS 702
	Oakland, CA 94623-1055
Phone No.:	(925) 451-2017
Name of Person Signing:	James Kelly
Title of Person Signing:	Interim Executive Director

Contact Person, if different than Person Signing:

Name of Contact:	Brian Campbell, EBMUD
Title of Contact:	Project Manager

SCOPE OF AGREEMENT

Pursuant to Chapter 4.5 of Division 21 of the California Public Resources Code, the State Coastal Conservancy ("the Conservancy") hereby grants to Bay Area Clean Water Agencies ("the grantee") a sum not to exceed $50,000.00 (fifty thousand dollars) or a proportionate share of the costs of the project as defined below, whichever is less, subject to the terms and conditions of this agreement. The grantee shall use these funds to negotiate and administer a Department of Water Resources ("DWR") Proposition 84

grant (the "DWR Grant") which will provide funding for implementation of certain projects ("IRWMP Projects") included in the Bay Area Integrated Regional Water Management Plan ("IRWMP") for the San Francisco Bay Area hydrologic region ("the project"). The project shall continue until the earliest of: 1) full completion of all IRWMP projects funded by the DWR grant; or 2) written notification to the Conservancy that the grantee will complete the project using other funds provided by sub-grantees (see below for definition of "sub-grantees").

The grantee has entered into an agreement with DWR to accept the DWR Grant (State Agr. No. 4600009715) and provide portions (each a "sub-grant") of the DWR Grant to third parties and the Conservancy ("sub-grantees") to undertake one or more of the IRWMP projects. This agreement provides funding to the grantee to undertake tasks related to that process. The project tasks will include: negotiation of grant terms and conditions with DWR; preparation and negotiation of sub-grant agreements; relaying and informing sub-grantees of DWR's programmatic requirements; review of the sub-grantees' IRWMP project workplans and budgets and revisions; development and implementation of financial and IRWMP project tracking systems; administration of IRWMP project reporting; preparation and submission of requests for reimbursements under the DWR Grant for IRWMP project work by the grantee and sub-grantees and management, safekeeping and disbursement of DWR grant funds; and participation in and facilitation of meetings and correspondence with DWR and with the sub-grantees as necessary to administer the DWR grant and sub-grant agreements .

The grantee shall use SCC funds for the project in accordance with this agreement and a work program as provided in the "WORK PROGRAM" section, below. The grantee shall provide any funds, through sub-grantees, beyond those granted under this agreement that are needed to complete the project. The amount of funding provided under this agreement is based on a reasonable estimation of the amount the grantee will need to complete the project, taking into account the total funding to be provided by the sub-grantees. In the event that additional grant funding is reasonably required to complete the project, the parties agree to amend this agreement to provide additional funding, up to a maximum of 15% of the current grant funding, and in an amount equivalent to the proportional share provided by sub-grantees to complete the project or in such other amount as may reasonably be attributed to the Conservancy ("proportionate share").

CONDITIONS PRECEDENT TO DISBURSEMENT

The Conservancy shall not be obligated to disburse any funds under this agreement until the following conditions precedent have been met:

1. The Board of Directors of the grantee has adopted a resolution designating positions whose incumbents are authorized to negotiate and execute this agreement and amendments to it on behalf of the grantee.

2. The Executive Officer of the Conservancy ("Executive Officer") has approved in writing the work program for the project as provided in the "WORK PROGRAM" section, below.

TERM OF AGREEMENT

This agreement shall be deemed executed and effective when signed by both parties and received in the office of the Conservancy together with the resolution described in the "CONDITIONS PRECEDENT TO DISBURSEMENT" section of this agreement. An authorized representative of the grantee shall sign the first page of the originals of this agreement in ink.

This agreement shall run from its effective date through December 31, 2016 ("the termination date") unless otherwise terminated or amended as provided in this agreement. However, all work shall be completed by September 30, 2016 ("the completion date").

The grantee, in reliance on the grant authorization, has undertaken work for the project prior to the effective date of this agreement, commencing August 17, 2011. The costs of work done before the effective date may be reimbursed through funds provided under this agreement, if necessary to timely completion of the project and done in a manner consistent with the terms of this agreement.

AUTHORIZATION

The signature of the Executive Officer of the Conservancy on this agreement certifies that at its November 10, 2011 meeting, the Conservancy adopted the resolution included in the staff recommendation attached as Exhibit A. This agreement is executed under that authorization.

WORK PROGRAM

The grantee shall submit a detailed work program to the Executive Officer for review and written approval of its consistency with the purposes of this grant agreement. The work program shall include:

1. The specific tasks to be performed.

2. A schedule of completion for the project, specifically listing the completion date for each project component and a final project completion date.

3. A project budget. The project budget shall describe all anticipated labor and materials costs of completing each component of the project. For each project component, the project budget shall list all intended funding sources including the Conservancy's grant, and all other sources of monies, materials, or labor.

The work program shall have the same effect as if included in the text of this agreement. However, the work program may be modified without amendment of this agreement upon the grantee's submission of a modified work program and the Executive Officer's

written approval of it. If this agreement and the work program are inconsistent, the agreement shall control.

The grantee shall carry out the project in accordance with the approved work program. The Conservancy acknowledges that the project involves multiple sub-grantees that will review work products and make decisions under other agreements and that sub-grantees will share responsibility for developing the Work Program. To the extent that the WORK PROGRAM under this agreement overlaps with grant administration funded by the DWR Grant and/or the sub-grantees, the parties agree to use best faith efforts to make use of a single set of work products as much as possible to avoid duplicative sets of deliverables and reporting for similar work.

COORDINATION AND MEETINGS

The grantee shall coordinate closely with Conservancy staff and other involved entities, including all sub-grantees and partner organizations, and shall participate in meetings and other communications as necessary to ensure coordination.

WORK PRODUCTS

All material, data, information, and written, graphic or other work produced, developed or acquired under this agreement is subject to the unqualified and unconditional right of the Conservancy to use, reproduce, publish, display, and make derivative use of all such work, or any part of it, free of charge and in any manner and for any purpose; and to authorize others to do so. If any of the work is subject to copyright, trademark, service mark, or patent, the Conservancy is granted and shall have a perpetual, royalty-free, nonexclusive and irrevocable license to use, reproduce, publish, use in the creation of derivative works, and display and perform the work, or any part of it, and to grant to any third party a comparable and coextensive sublicense. The Conservancy acknowledges that each sub-grantee will have rights similar to those described in this paragraph and the Conservancy rights are non-exclusive.

The grantee shall include in any contract with a third party for work under this agreement terms that preserve the rights, interests, and obligations created by this section, and that identify the Conservancy as a third-party beneficiary of those provisions.

The grantee shall not utilize the work produced under this agreement for any profit-making venture, or sell or grant rights to a third party for that purpose.

COSTS AND DISBURSEMENTS

When the Conservancy determines that all "CONDITIONS PRECEDENT TO DISBURSEMENT" have been fully met, the Conservancy shall disburse to the grantee, in accordance with the approved project budget, a total amount not to exceed the amount of this grant, as follows:

The Conservancy shall initially disburse to the grantee in advance $20,000 of the funds available under this grant agreement. The Conservancy shall make two subsequent advance disbursements to the grantee of $15,000, provided that prior to disbursement the grantee demonstrates to the satisfaction of the Executive Officer that:

1. With regard to the second advance payment, the grantee's cumulative expenditures on the project (from all sources of funding) are projected to exceed $150,000 within three months and the remaining balance of previously advanced funds is projected to reach zero within three months.

   With regard to the third advance payment, as of no later than April 1, 2016, the grantee's cumulative expenditures on the project (from all sources of funding) are projected to exceed $265,000 on or before the completion date (September 30, 2016) and the remaining balance of previously advanced funds is projected to reach zero on or before the completion date (September 30, 2016).

The grantee shall request each disbursement of advanced funds by filing with the Conservancy a fully executed "Request for Disbursement" form (available from the Conservancy). The grantee must submit its Request for Disbursement for the third advance payment no later than April 15, 2016.

The grantee shall state on each Request for Disbursement form its name and address, the number of this agreement, the date of the submission, the amount of the advanced funds sought, an itemized description of the remaining project work to which the advanced funds will be applied and the period during which the work will be done. The form shall be signed by an authorized representative of the grantee. The Request for Disbursement for the second and third advanced funds shall include documentation that grantee has met the conditions for disbursement set forth above. The grantee's failure to fully execute and submit a Request for Disbursement form, including attachment of supporting documents, will relieve the Conservancy of its obligation to disburse funds to the grantee unless and until the grantee corrects all deficiencies.

Upon approval of each Request for Disbursement by the Executive Officer, the Conservancy shall disburse to the grantee the advanced funds pertaining to that request. Grantee shall maintain the advanced funds provided pursuant to this agreement in a separate interest-bearing account, and shall use these funds solely to carry out the project in accordance with the approved work program.

Within 30 days of completing the project, as provided in the "PROJECT COMPLETION" section of this agreement the grantee shall submit a final accounting to the Conservancy of costs incurred for all work on the project, including administrative work funded by other entities or reimbursed by DWR. The accounting shall contain an itemized description of all costs incurred, including time, materials, and expenses. The accounting shall identify the balance of any advanced funds and interest remaining in the separate account required by this agreement. The final accounting shall be signed by an authorized representative of the grantee and shall be accompanied by receipts and supporting invoices or other source documents from contractors that the grantee engaged to complete any portion of the project funded under this agreement. The Conservancy acknowledges that the grantee will be providing financial information to all sub-grantees on a quarterly basis and the Conservancy agrees to review this information when it is made available and raise questions, if any, while the project is in progress.

The Executive Officer shall review and approve the final accounting provided by the grantee and may disapprove any cost that is inconsistent with the terms of this agreement or the work program, provided, however, that the Conservancy may not disapprove any costs that have been collectively approved by the sub-grantees (including the Conservancy) pursuant to other agreements involving the project to which the Conservancy and the grantee, and the other sub-grantees and grantee, are parties. The Executive Officer shall notify the grantee in writing of any deficiencies in the final accounting and any disapproved costs. Within 15 days of receipt of notice from the

Conservancy, the grantee shall correct any deficiencies and eliminate any disapproved costs from the total project cost and resubmit a final accounting for approval.

In the event that the approved final accounting shows that the Conservancy contributed more than its proportionate share, the grantee shall, unless requested in writing to do otherwise by the Conservancy, refund to the Conservancy all amounts advanced and interest accrued pursuant to this agreement that exceed the Conservancy's proportionate share. If a refund is due, the grantee shall provide the refund within thirty days after Conservancy approval of the final accounting.

If the grantee fails to timely execute and submit a final accounting as required, or fails to promptly rectify deficiencies in the final accounting, the grantee shall be liable for immediate repayment to the Conservancy in the full amount of the advanced funds less any costs incurred by grantee which the Conservancy, in its discretion, may otherwise approve.

EXPENDITURE OF FUNDS AND ALLOCATION OF FUNDING AMONG BUDGET ITEMS

The total amount of this grant may not be increased except by written amendment to this agreement. The grantee shall expend funds consistent with the approved project budget. Expenditure on items contained in the approved project budget may vary by as much as ten percent without prior approval by the Executive Officer, provided the grantee submits a revised budget prior to requesting disbursement based on the revised budget. Any

deviation greater than ten percent must be identified in a revised budget and approved in advance and in writing by the Executive Officer. The approval of the Executive Officer shall not be unreasonably withheld if the sub-grantees (including the Conservancy) have collectively approved budget revisions greater than ten percent pursuant to other agreements involving the project to which the grantee and the Conservancy, and the other sub-grantees and grantee, are parties. The Conservancy may withhold payment for items which exceed the amount allocated in the project budget by more than ten percent and which have not received the approval required above. Any increase in the funding for any particular budget item shall mean a decrease in the funding for one or more other budget items unless there is a written amendment to this agreement.

PROJECT COMPLETION

The grantee shall complete the project by the completion date provided in the "TERM OF AGREEMENT" section, above. Upon grantee's request, and subject to the discretion of the Conservancy, the project may be deemed complete before all administration of the DWR award has ended, if the grantee has expended at least $385,000 in total on the project in accordance with the approved work program and all advanced funds and interest accrued have been expended on the project. Upon completion of the project, the grantee shall supply the Conservancy with evidence of completion by submitting:

1. Written documentation that the no further grant funding will be required under this agreement for administration by the grantee of the DWR Grant.

2. As specified in the "COSTS AND DISBURSEMENT" section, above, an approved final accounting with respect to advanced funds, interest accruals, and total project expenses to date and, if required a refund of advanced funds and interest .

Within thirty days of the grantee's submission of the above, the Conservancy shall determine whether the grantee has satisfactorily completed the project. If so, the Conservancy shall issue to the grantee a letter of acceptance of the project. The project shall be deemed complete as of the date of the letter.

SUSPENSION AND FAILURE TO PERFORM

Before the project is complete, the Conservancy may suspend further advance disbursements under the agreement, if the Conservancy is directed to do so by Executive Order of the Governor or other equivalent directive, such as a court order or an order from a federal or state agency. In that case, the grantee may, at its election: 1) immediately stop work under the agreement and take all reasonable measures to prevent further costs to the Conservancy; or 2) continue work, under the express understanding and agreement that the Conservancy will not make any further advance disbursements under this agreement unless or until the order or other directive giving rise to the suspension has been lifted, cancelled, made ineffective or otherwise removed. Any notice

suspending work under this agreement shall remain in effect until further written notice from the Conservancy.

If the grantee fails to complete the project as required, or fails to fulfill any other material obligations of this agreement prior to the termination date, the grantee shall be liable for immediate repayment to the Conservancy of all amounts disbursed by the Conservancy under this agreement that remain unexpended as of the date that the grantee fails to complete performance or to fulfill material obligation(s) under this agreement. The Conservancy may, at its sole discretion, consider extenuating circumstances and not require repayment for work partially completed. This paragraph shall not be deemed to limit any other remedies the Conservancy may have for breach of this agreement.

The parties expressly agree to waive, release and relinquish the recovery of any consequential damages that may arise out of the suspension of this agreement under this section.

The grantee shall include in any agreement with any contractor retained for work under this agreement a provision that entitles the grantee to suspend the agreement with the contractor for any reason on written notice and on the same terms and conditions specified in this section.

AUDITS/ACCOUNTING/RECORDS

The grantee shall maintain financial accounts, documents, and records (collectively, "records") relating to this agreement, in accordance with the guidelines of "Generally Accepted Accounting Principles" ("GAAP") published by the American Institute of Certified Public Accountants. The records shall include, without limitation, evidence sufficient to reflect properly the amount, receipt, deposit, and disbursement of all funds related to work under the agreement. Time and effort reports are also required. The grantee shall maintain adequate supporting records in a manner that permits tracing from the request for disbursement forms to the accounting records and to the supporting documentation.

Additionally, the Conservancy or its agents may review, obtain, and copy all records relating to performance of the agreement. The grantee shall provide the Conservancy or its agents with any relevant information requested and shall permit the Conservancy or its agents access to the grantee's premises upon reasonable notice, during normal business hours, to interview employees and inspect and copy books, records, accounts, and other material that may be relevant to a matter under investigation for the purpose of determining compliance with this agreement and any applicable laws and regulations.

The grantee shall retain the required records for a minimum of three years following final disbursement by the Conservancy. The records shall be subject to examination and audit by the Conservancy and the Bureau of State Audits during the retention period.

If the grantee retains any contractors to accomplish any of the work of this agreement, the grantee shall first enter into an agreement with each contractor requiring the contractor to meet the terms of this section and to make the terms applicable to all subcontractors.

The Conservancy may disallow all or part of the cost of any activity or action that it determines to be not in compliance with the requirements of this agreement.

COMPUTER SOFTWARE

The grantee certifies that it has instituted and will employ systems and controls appropriate to ensure that, in the performance of this contract, state funds will not be used for the acquisition, operation or maintenance of computer software in violation of copyright laws.

NONDISCRIMINATION

During the performance of this agreement, the grantee and its contractors shall not unlawfully discriminate against, harass, or allow harassment against any employee or applicant for employment because of sex, race, color, ancestry, religious creed, national origin, ethnic group identification, physical disability (including HIV and AIDS), mental disability, medical condition, marital status, age (over 40) or sexual orientation (Government Code section 12940). The grantee and its contractors also shall not unlawfully deny a request for or take unlawful action against any individual because of the exercise of rights related to family-care leave (Government Code sections 12945.1 and 12945.2). The grantee and its contractors shall ensure that the evaluation and treatment of their employees and applicants for employment are free of such discrimination, harassment and unlawful acts.

Consistent with Government Code section 11135, the grantee shall ensure that no one, on the basis of race, national origin, ethnic group identification, religion, age, sex, sexual orientation, color, or disability, is unlawfully denied full and equal access to the benefits of, or is unlawfully subjected to discrimination under, the work funded by the Conservancy under this agreement.

Pursuant to Government Code section 12990, the grantee and its contractors shall comply with the provisions of the Fair Employment and Housing Act (Government Code section 12900 et seq.) and the applicable regulations (California Code of Regulations Title 2, section 7285.0 et seq.). The regulations of the Fair Employment and Housing Commission regarding Contractor Nondiscrimination and Compliance (Chapter 5 of Division 4 of Title 2 of the California Code of Regulations) are incorporated into this agreement by this reference.

The grantee and its contractors shall give written notice of their obligations under this clause to labor organizations with which they have a collective bargaining or other agreement. This nondiscrimination clause shall be included in all contracts and subcontracts entered into to perform work provided for under this agreement.

INDEPENDENT CAPACITY

The grantee, and the agents and employees of the grantee, in the performance of this agreement, shall act in an independent capacity and not as officers or employees or agents of the State of California.

ASSIGNMENT

Without the written consent of the Executive Officer, this agreement is not assignable by the grantee in whole or in part.

TIMELINESS

Time is of the essence in this agreement.

EXECUTIVE OFFICER'S DESIGNEE

The Executive Officer shall designate a Conservancy project manager who shall have authority to act on behalf of the Executive Officer with respect to this agreement. The Executive Officer shall notify the grantee of the designation in writing.

AMENDMENT

Except as expressly provided in this agreement, no change in this agreement shall be valid unless made in writing and signed by the parties to the agreement. No oral understanding or agreement not incorporated in this agreement shall be binding on any of the parties.

LOCUS

This agreement is deemed to be entered into in the County of Alameda.

BACWA EXECUTIVE BOARD ACTION REQUEST

AGENDA NO.: 9
FILE NO.: 12,729
MEETING DATE: May 24, 2012

TITLE: Regulatory Program Manager

☒ **MOTION** ☐ **RESOLUTION** ☐ **DISCUSSION**

ACTION UNDER CONSIDERATION

Authorize the BACWA Chair to execute an agreement with Patricia McGovern Engineers (PME) to provide Regulatory Program Manager services, not to exceed $100,000, for the Fiscal Year 2012-2013.

SUMMARY

At the Pardee Technical Seminar in October 2011 attendees evaluated BACWA's organizational structure and recommended that Executive Director obtain regulatory program assistance. This action will provide the BACWA Chair with the authority to enter into a contract, on BACWA's behalf, with PME for Regulatory Program Manager services. Lorien Fono, of PME, will serve as the Project Lead under the direction of the BACWA Executive Director or a BACWA Board designated representative. The services to be provided are described in the draft scope of work (attached) and are intended to increase the capacity of BACWA's efforts by

- improving efficiency within the organization;
- providing an opportunity for greater alignment with the Permit Committee; and
- dedicating an additional resource to address comment letter submissions, nutrients issues, and routine administrative tasks.

FISCAL IMPACT

This contract is necessary to implement the 2013 BACWA and Special Programs workplan and is included in the 2013 budget approved by the BACWA Board on May 3, 2012.

ALTERNATIVES

In accordance with BACWA contracting policies, a Request for Proposals was issued on November 30, 2011. As recommended by the BACWA Board, selection committee comprised of the BACWA Chair, Vice Chair and Executive Director evaluated six impressive proposals that represented spectrum applicable experience, qualifications and rates. All selection committee members agreed that PME offered the best combination of technical capability and cost.

ATTACHMENTS

1. Draft scope of work and rate sheet

SCOPE OF WORK

Regulatory Program Manager Services (not to exceed $100,000)

Consultant will provide Regulatory Program Manager services, with Lorien Fono as Project Lead, under the direction of the BACWA Executive Director or designated BACWA representative to assist with some or all of the following:

- Track and summarize water quality regulations and policies affecting BACWA member agencies;
- Assist/lead the preparation of comment letters on key regulations;
- Coordinate and participate in meetings with regulatory agencies, including the State Water Resources Control Board and the San Francisco Bay Regional Water Quality Control Board;
- Attend and report to the Executive Board on public and industry meetings, including but not limited to Tri-TAC and BACWA Committee Meetings;
- Provide support for designated BACWA committees and workgroups;
- Assist the Executive Director with contract and program management, and with other related tasks as requested.

HOURLY RATES/REIMBURSABLE EXPENSES

Tricia McGovern - $140/hr

Lorien Fono - $96/hr

State Water Resources Control Board

May 14, 2012

CERTIFIED MAIL & EMAIL

Paul S. Simmons, Esq.
Theresa A. Dunham, Esq.
Cassie N. Aw-Yang, Esq.
Somach Simmons & Dunn
500 Capitol Mall, Suite 1000
Sacramento, CA 95814
psimmons@somachlaw.com
tdunham@somachlaw.com
cawyang@somachlaw.com

Mr. Bill Jennings, Executive Director
California Sportfishing Protection Alliance
3536 Rainier Avenue
Stockton, CA 95204
deltakeep@aol.com

PETITIONS OF SACRAMENTO REGIONAL COUNTY SANITATION DISTRICT AND CALIFORNIA SPORTFISHING PROTECTION ALLIANCE (WASTE DISCHARGE REQUIREMENTS ORDER NO. R5-2010-0114 [NPDES NO. CA0077682] FOR THE SACRAMENTO REGIONAL COUNTY SANITATION DISTRICT, SACRAMENTO REGIONAL WASTEWATER TREATMENT PLANT, SACRAMENTO COUNTY), CENTRAL VALLEY WATER BOARD: BOARD WORKSHOP NOTIFICATION
SWRCB/OCC FILES A-2144(a) and A-2144(b)

Dear Messrs. Simmons and Jennings and Mses. Dunham and Aw-Yang:

Enclosed is a copy of the proposed order in the above-entitled matter. The State Water Resources Control Board (State Water Board) will hold a workshop on this proposed order on *Wednesday, July 18, 2012*, commencing at *9:00 a.m.* in the Byron Sher Auditorium, Second Floor of the Cal/EPA Building, 1001 I Street, Sacramento, California. You will separately receive an agenda for this meeting.

The purpose of this workshop is to solicit comments from stakeholders and the public regarding the proposed order. The State Water Board will take no final action on the proposed order at this workshop. After consideration of comments received prior to or at this workshop, the State Water Board may schedule the matter for final action at a subsequent State Water Board meeting.

At the workshop, interested persons will be allowed to comment orally on the proposed order, subject to the following time limits. The petitioners, Sacramento Regional County Sanitation District and California Sportfishing Protection Alliance, and the Central Valley Regional Water Quality Control Board will each be allowed 30 minutes for oral comment, with additional time for

questions by the State Water Board members. The Water Agencies, collectively,[1] will be allowed 15 minutes for oral comment, with additional time for questions by the State Water Board members. Other interested persons will be allotted a lesser amount of time to address the State Water Board.

All comments shall be based solely upon evidence contained in the record or upon legal argument. Supplemental evidence will not be permitted except under the limited circumstances described in California Code of Regulations, title 23, section 2050.6. Written comments on the draft order and any other materials to be presented at the workshop, including power point and other visual displays, must be received by **12:00 noon, Friday, June 15, 2012**. Please indicate in the subject line, comments to A-2144(a)(b)—July 18 Board Workshop. Those comments must be addressed to:

Ms. Jeanine Townsend
Clerk to the Board
State Water Resources Control Board
1001 I Street, 24th Floor [95814]
P.O. Box 100
Sacramento, CA 95812-0100
(tel) 916-341-5600
(fax) 916-341-5620
(email) commentletters@waterboards.ca.gov

If there are any questions or comments, please contact James Herink, Staff Counsel, in the Office of Chief Counsel, at (916) 341-5150 or email jherink@waterboards.ca.gov.

Sincerely,

Michael A.M. Lauffer
Chief Counsel

Enclosure

cc: See next page

[1] The Water Agencies are a collection of entities that have jointly filed a response to the consolidated petition and are considered "an interested person" pursuant to State Water Board regulations. (See Cal. Code Regs., tit. 23, § 2050.5, subd.(a).) The Water Agencies are: Alameda County Water District; Alameda County Flood Control and Water Conservation District, Zone 7; Kern County Water Agency; Metropolitan Water District; Santa Clara Valley Water District; Contra Costa Water District; State Water Contractors; Westlands Water District; and, San Luis & Delta-Mendota Water Authority. These entities will collectively be allowed thirty (30) minutes for oral comment.

cc: **[via U.S. Mail and email]**
Robert A. Ryan, Jr., Esq., County Counsel
Lisa A Travis, Esq., Supervising Deputy County Counsel
County of Sacramento
700 H Street, Suite 2650
Sacramento, CA 95814
ryanr@saccounty.net
travisl@saccounty.net

[via U.S. Mail and email]
Mr. Stanley R. Dean, District Engineer
Sacramento Regional County Sanitation District
10060 Goethe Road
Sacramento, CA 95827
deans@sacsewer.com

Mr. Clay Rodgers **[via email only]**
Assistant Executive Officer
Central Valley Regional Water Quality Control Board, Fresno Office
1685 E Street
Fresno, CA 93706-2020
crodgers@waterboards.ca.gov

Mr. Robert Crandall **[via email only]**
Assistant Executive Officer
Central Valley Regional Water Quality Control Board, Redding Office
415 Knollcrest Drive
Redding, CA 96002
rcrandall@waterboards.ca.gov

Mr. Rick Moss **[via email only]**
Assistant Executive Officer
Central Valley Regional Water Quality Control Board
11020 Sun Center Drive, Suite 200
Rancho Cordova, CA 95670-6114
rmoss@waterboards.ca.gov

(Continued next page)

[via U.S. Mail and email]
Mike Jackson, Esq.
Law Office of Mike Jackson
P.O. Box 207
429 W. Main Street
Quincy, CA 95971
mjatty@sbcglobal.net

[via U.S. Mail and email]
Andrew L. Packard, Esq.
The Law Offices of Andrew L. Packard
100 Petaluma Boulevard North, Suite 301
Petaluma, CA 94952
andrew@packardlawoffices.com

Ms. Pamela C. Creedon **[via email only]**
Executive Officer
Central Valley Regional Water Quality Control Board
11020 Sun Center Drive, Suite 200
Rancho Cordova, CA 95670-6114
pcreedon@waterboards.ca.gov

Mr. David P. Coupe **[via email only]**
San Francisco Bay Regional Water Quality Control Board
1515 Clay Street, Suite 1400
Oakland, CA 94612
dcoupe@waterboards.ca.gov

Alex P. Mayer, Esq. **[via email only]**
Office of Chief Counsel
State Water Resources Control Board
1001 I Street, 22nd Floor [95814]
P.O. Box 100
Sacramento, CA 95812-0100
amayer@waterboards.ca.gov

cc: (Continued)

Mr. Kenneth D. Landau **[via email only]**
Assistant Executive Officer
Central Valley Regional Water Quality Control Board
11020 Sun Center Drive, Suite 200
Rancho Cordova, CA 95670-6114
klandau@waterboards.ca.gov

Ms. Kathleen Harder **[via email only]**
Water Resource Control Engineer
Central Valley Regional Water Quality Control Board
11020 Sun Center Drive, Suite 200
Rancho Cordova, CA 95670-6114
kharder@waterboards.ca.gov

Philip G. Wyels, Esq. **[via email only]**
Office of Chief Counsel
State Water Resources Control Board
1001 I Street, 22nd Floor [95814]
P.O. Box 100
Sacramento, CA 95812-0100
pwyels@waterboards.ca.gov

Patrick E. Pulupa, Esq. **[via email only]**
Office of Chief Counsel
State Water Resources Control Board
1001 I Street, 22nd Floor [95814]
P.O. Box 100
Sacramento, CA 95812-0100
ppulupa@waterboards.ca.gov

Mr. David W. Smith, Chief **[via email only]**
Permits Office
U.S. EPA, Region 9
75 Hawthorne Street
San Francisco, CA 94105
smith.davidw@epa.gov

Interested Persons List

Lyris List

DRAFT

STATE OF CALIFORNIA

STATE WATER RESOURCES CONTROL BOARD

ORDER WQ 2012-

In the Matter of Own Motion Review of

Waste Discharge Requirements Order No. R5-2010-0114
[NPDES No. CA0077682]
for

SACRAMENTO REGIONAL WASTEWATER TREATMENT PLANT

Issued by the
California Regional Water Quality Control Board,
Central Valley Region

SWRCB/OCC FILES A-2144(a) and A-2144(b)

BY THE BOARD:

In this Order, the State Water Resources Control Board (State Water Board or Board) reviews on its own motion National Pollutant Discharge Elimination System (NPDES) permit and Waste Discharge Requirements Order No. R5-2010-0114 (Permit) issued by the Central Valley Regional Water Quality Control Board (Central Valley Water Board) to the Sacramento Regional County Sanitation District (District). The Permit authorizes effluent discharges from the District's Sacramento Regional Wastewater Treatment Plant (Facility) to the Sacramento River within the boundaries of the Sacramento-San Joaquin Delta (Delta). For the reasons discussed herein, the State Water Board upholds most of the Permit and remands other portions of the Permit to the Central Valley Water Board for reconsideration and revision consistent with this Order.

BACKGROUND

The District owns and operates the Facility. The Facility was constructed in 1982 and provides "secondary" level treatment.[1] The District provides sewerage service to the Cities of Sacramento, Folsom, West Sacramento, and the Sacramento Area Sewer District service area. The Sacramento Area Sewer District includes the Cities of Elk Grove,

[1] Compliance with secondary treatment standards represents the *minimum* standard for all publicly owned treatment works nationwide. (See 33 U.S.C. § 1311(b).)

Rancho Cordova, Citrus Heights, Courtland, and Walnut Grove, as well as portions of the unincorporated areas of Sacramento County. The population served is approximately 1.3 million people. The District owns and operates the main trunk lines and interceptors feeding the Facility, while the smaller diameter collection systems are owned and operated by the various contributing agencies.

The Facility is a regional wastewater plant and has an average dry weather flow design capacity of 181 million gallons per day (mgd). Currently the Facility's average dry weather flow is 141 mgd. The Facility's current permitted discharge flow of 181 mgd represents nearly 60 percent of the total volume of all publicly owned treatment works' permitted discharge within the Delta[2] that are within the Central Valley Water Board's jurisdiction. The Facility is one of the three remaining wastewater treatment plants under the Central Valley Water Board's jurisdiction that discharge within the Delta and only provide secondary treatment to its effluent.[3] The Facility's treatment system consists of mechanical bar screens, aerated grit removal, primary sedimentation, pure oxygen activated sludge aeration, secondary clarification, chlorine disinfection with dechlorination, and a diffuser for discharges to the Sacramento River. Solids handling consists of dissolved air flotation thickeners, gravity belt thickeners, anaerobic digesters, and sludge stabilization basins with disposal on-site through land application or a biosolids recycling facility.[4]

The Facility discharges to the Sacramento River from an outfall diffuser downstream of the Freeport Bridge. The outfall discharges within the legal boundaries of the Delta. The existing beneficial uses of the Delta, as listed in the *Water Quality Control Plan for the Sacramento River and San Joaquin River Basins* (Basin Plan), include: municipal and domestic supply (MUN); agricultural supply (AGR); water contact recreation (REC-1); non-contact water recreation (REC-2); warm freshwater habitat (WARM); and cold freshwater habitat (COLD). The outfall diffuser is approximately 300 feet long with 74 ten-inch diameter ports and is placed perpendicular to the river flow. At the point of discharge, the Sacramento River is approximately 600 feet wide at the surface with a bottom width of approximately 400 feet and depth of 25 to 30 feet.[5]

---

[2] Wat. Code, § 12220.

[3] The other two facilities are the Discovery Bay Wastewater Treatment Plant (see Order No. R5-2008-0179) and the City of Rio Vista's Beach Wastewater Treatment Facility (see Order No. R5-2008-0108-1). These facilities are authorized to discharge up to 2.1 mgd and 0.65 mgd respectively.

[4] The Permit regulates only the Facility. The biosolids, solids storage, and disposal facilities are regulated pursuant to Waste Discharge Requirements Order No. R5-2003-0076.

[5] Waste Discharge Requirements Order No. R5-2010-0114, p. F-82.

During low river flows, tidal activity can cause the river in the vicinity of the outfall to flow northward, in the reverse direction, towards the City of Sacramento. The Discharger diverts its discharge to emergency storage basins whenever these conditions exist.

The Central Valley Water Board issued the Permit on December 9, 2010. The Permit is a renewal of the District's prior permit issued in 2000 and had been administratively extended since 2005. Contrary to the District's claim that the Permit renewal was "characterized by haste, particularly related to the major issues that are subject to this appeal[,]"[6] the administrative record contains evidence of a decade-long effort on the part of the Central Valley Water Board to study and understand the Delta and the Facility's effect on it and water quality in general. The record reveals the effort made by the Central Valley Water Board staff to understand the extremely complex scientific issues involved with this Permit's development. As a result of this effort, the Permit contains several new or more stringent effluent limitations and requirements. Recognizing these changes, the Permit will require substantial changes to the character of the District's discharge and upgrades to the Facility to meet the Permit's requirements. The Permit grants the District up to ten years before some of the final effluent limitations take effect.

In response to the Permit's adoption, the District and the California Sportfishing Protection Alliance (CSPA) both filed timely petitions for review with the State Water Board. After deeming the petitions complete, consolidating them for review, receiving the response and administrative record from the Central Valley Water Board, and responses from interested persons, we adopted Order WQ 2011-0013 on September 19, 2011, taking this matter up on our own motion. We granted own motion review in order to have sufficient time to adequately review the voluminous submissions and allow a detailed legal and technical review of the submissions. During our review of the petitions and the administrative record, the District and interested persons submitted numerous requests to file supplemental pleadings and augment the administrative record. These requests were granted in part and denied in part on November 22, 2011. Subsequently, the District filed a petition for writ of mandate with the Sacramento Superior Court.[7] Unless the District withdraws its petition with the Superior Court or an extension is granted, that judicial proceeding is stayed until July 1, 2012.

---

[6] District's Petition for Review of Waste Discharge Requirements Order No. R5-2010-0114 (SWRCB/OCC File A-2144(a)), p. 15.

[7] *Sacramento Regional County Sanitation Dist. v. Cal. Regional Water Quality Control Bd., Central Valley Region* (Super. Ct. Sac. County, Case No. 34-2011-80001028). The effective date of the final effluent limitations that are the subject of the petition for writ of mandate are extended for a period equal to the duration of the court-imposed, stipulated stay.

ISSUES AND FINDINGS

Between the two petitions, a total of over 80 contentions were raised claiming fault with nearly every aspect of the Permit. This Order addresses only a few topics – primarily pathogens, ammonia, and nitrate. To the extent petitioners raised issues that are not discussed in this Order, either in whole or in part, such issues are dismissed as not raising substantial issues appropriate for our review.[8]

Pathogens and Filtration

The Permit contains a final effluent limitation for total coliform organisms of 2.2 most probable number (MPN) per 100 milliliters.[9] The Permit also requires the District's effluent discharged to the Sacramento River to be oxidized, coagulated, filtered, and adequately disinfected pursuant to the California Department of Public Health (CDPH) reclamation criteria, California Code of Regulations, title 22, division 4, chapter 3 (commencing with section 60301), or equivalent.[10] The District contends that the new filtration requirements are not justified, and that the Central Valley Water Board mischaracterizes the site-specific risk assessment provided by the District.

Based on our technical review of the evidence in the record and in light of CDPH's site-specific recommendation, we find that the Central Valley Water Board correctly concluded that the Permit's requirement to provide equivalent to "disinfected tertiary recycled water"[11] level of treatment is appropriate and necessary to protect beneficial uses at and around the point of discharge. The Central Valley Water Board found that the Sacramento River is currently being used for AGR and REC-1 purposes at or near the outfall. Dilution in this vicinity is less than 20 to 1 and the potential for "double dosing"[12] during some low river flow conditions coinciding with tidal influences. While the Central Valley Water Board's determination to impose

[8] *People v. Barry* (1987) 194 Cal.App.3d 158, 175-177; *Johnson v. State Water Resources Control Bd.* (2004) 123 Cal.App.4th 1107, 1114; Cal. Code Regs., tit. 23, § 2052, subd. (a)(1).

[9] "Most probable number" is a measure of the number of colony forming units of bacteria in a culture grown with a water sample on specific media for the bacteria of interest.

[10] Waste Discharge Requirements Order No. R5-2010-0114, p. 33.

[11] "Disinfected tertiary recycled water" is defined as an oxidized (i.e., secondary treated or equivalent) wastewater that has been coagulated, filtered, and disinfected using chlorine, meeting a chlorine concentration and contact time standard, or an equivalent process, meeting a virus inactivation standard, including that the median total coliform bacteria concentration does not exceed an MPN of 2.2 per 100 milliliters as a 7-day average, the number of total coliform bacteria does not exceed an MPN of 23 per 100 milliliters in more than one sample in any 30-day period, and no sample exceeds an MPN of 240 total coliform bacteria per 100 milliliters. (Cal. Code Regs., tit. 22, § 60301.230.)

[12] "Double Dosing" refers to a doubling of the concentration of pathogens due to flow reversals occurring during high tide and low flow conditions. While conditions in the Permit limit double dosing occurrences, they are not eliminated. (See Waste Discharge Requirements Order No. R5-2010-0114, p. F-32, fn. 1.)

its requirements may be criticized as being conservative, we have previously recognized that it is within a regional water quality control board's (regional water board's) discretion to be conservative in its approach when faced with decisions involving public health protection.[13]

The treatment level of wastewater affects how effectively and efficiently it can be disinfected. A cleaner effluent can be more effectively disinfected, because constituents in the effluent may affect how thoroughly the disinfectant inactivates pathogens in the effluent and the degree to which harmful disinfection byproducts are formed from the reaction between residual contaminants in the treated wastewater and the applied disinfectants.[14] The disinfection level required for wastewater is largely determined by the degree of public exposure and an acceptable level of risk for acquiring infection or illness as a result of exposure to the treated wastewater.

In California, CDPH determines the level of risk and the State Water Board and regional water board establish waste discharge requirements that mitigate the risk to the level identified by CDPH. CDPH has adopted general guidelines and, when requested will provide site-specific recommendations for the disinfection requirements necessary for municipal wastewater dischargers to comport with state public health policy and acceptable risk levels.[15] The *Uniform Guidelines for Sewage Disinfection* (*CDPH Guidelines*) require a median MPN of 2.2 when a stream's low flow provides dilution of less than 100 to 1[16] to protect MUN use, and to protect AGR or REC-1 beneficial uses, a median MPN of 2.2 is required when a stream's low flow provides dilution of less than 20 to 1.[17] The *CDPH Guidelines* state that "[f]or these discharge situations it is particularly important to fully consider the individual circumstances so that adequate health protection is provided through the application of reasonable disinfection requirements. For example, it may be appropriate to reflect seasonal changes in recreational use, dilution at the use area, etc."[18] Additionally, the U.S. Environmental Protection Agency

---

[13] See State Water Board Order WQ 95-4 (*City and County of San Francisco*), p. 21.

[14] Residual particulate matter in treated wastewater can shield pathogens from contact with disinfectant, and residual chemical constituents in the treated wastewater can form disinfection byproducts that can be toxic to humans, animals, and aquatic life when discharged to water bodies. (See Emerick, Robert W. et al., *Factors Influencing Ultraviolet Disinfection Performance Part II: Association of Coliform Bacteria with Wastewater Particles*, (Sept./Oct. 1999) Water Environment Research, p. 1178; Waste Discharge Requirements Order No. R5-2010-0114, pp. F-62 and F-75.)

[15] State Department of Health Services, *Uniform Guidelines for Sewage Disinfection* (Nov. 1980). The State Department of Health Services is the predecessor to the current California Department of Public Health.

[16] Unless specified otherwise, all ratios are expressed as receiving water to effluent.

[17] *CDPH Guidelines*, p. 5.

[18] *Id.*, p. 5.

(U.S. EPA) publishes guidelines and recommendations for public health protection from recreational contact with pathogens in waters subject to wastewater discharges.[19] The U.S. EPA guidelines and recommendations are "not rules and they do not have regulatory impact."[20]

Data submitted by the District to the Central Valley Water Board indicated the presence of *Giardia* cysts and *Cryptosporidium* oocysts in the Facility's discharge, prompting the Central Valley Water Board to request a site-specific health risk assessment.[21] CDPH met with the District and concluded that a formal risk assessment was appropriate. The District engaged third party professional services to conduct the risk assessment. The District's final risk report indicated that the combined average risk of infection from *Giardia* and *Cryptosporidium* for one swimming exposure is reported as 2.4 in 10,000 upstream of the District's outfall and 3.6 in 10,000 downstream of the District's outfall. Further, the District's final report indicated that the combined average risk of infection for ten swimming exposures is reported as 30.2 in 10,000 upstream of the District's outfall and 43.8 in 10,000 downstream of the District's outfall.[22] Upon presentation of the results, CDPH recommended that the District "provide additional treatment sufficient to reduce the *additional* risk of infection posed by exposure to its discharge to as close to 1 in 10,000 as can be achieved by a cost-combination using filtration and/or a disinfection process that effectively inactivates *Giardia* cysts and

---

[19] On July 26, 1976, U.S. EPA removed the fecal coliform bacteria limitations from the definition of secondary treatment in the Code of Federal Regulations, title 40, part 133 (41 Fed. Reg. 30786 (Jul. 26, 1976)). This change resulted in bacteria effluent limitations in NPDES permits being established as water quality-based effluent limitations instead of as technology-based effluent limitations. On this same date, U.S. EPA published the Quality Criteria for Water (The Red Book, EPA 440/9-76-023, Jul. 1976), which are U.S. EPA recommendations for water quality criteria intended to be used by states as guidelines for development of receiving water specific water quality standards including development of bacteria water quality criteria and corresponding disinfection requirements. The current version of these criteria was published in 1986 (The Gold Book, EPA 440/5-86-001, May 1986). The purpose of this change was to encourage states to develop site-specific disinfection requirements that consider both public health hazards (i.e., the site specific-need to protect the public from disease as a result of consumption or contact with the receiving water) and potential adverse impacts on aquatic life in the receiving water resulting from disinfection byproducts.

[20] *See* The Gold Book, EPA 440/5-86-001 (May 1986), p. 2.

[21] Letter from Assistant Executive Officer Kenneth D. Landau, Central Valley Water Board to Chief Carl Lischeske, California Department of Public Health (May 11, 2009), p. 2.

[22] See Gerba, Charles, P., *Estimated Risk of Illness from Swimming in the Sacramento River* (Feb. 23, 2010). Dr. Gerba's draft risk assessment report notes that for ten swimming exposures, the risk of infection from *Giardia* and *Cryptosporidium* are 4.4×10^{-4} and 3.0×10^{-4}, respectively, upstream of the District's outfall and 9.0×10^{-4} and 5.8×10^{-4}, respectively, downstream of the District's outfall. Based on these results, the risk of infection downstream of the District's outfall compared to upstream more than doubles due to *Giardia* in the District's effluent and nearly doubles due to *Cryptosporidium* in the District's effluent. (See Gerba, Charles, P., *Estimated Risk of Illness from Swimming in the Sacramento River* (Sep. 24, 2009).) State Water Board staff reproduced the risk calculations presented in both the District's draft September 2009 risk assessment report and in the final February 2010 report. State Water Board staff used the model and parameters presented and protozoa concentrations reported in the District's report and in the administrative record. State Water Board staff was able to reproduce the District's draft risk assessment results exactly, but could not reproduce the final risk model results.

Cryptosporidium oocysts."[23] CDPH noted that according to the District's final risk assessment, the District's discharge "appears to be contributing at least 30 percent of the pathogens detected in the receiving waters," that "the average risk of infection from a single swimming exposure to the effluent is approximately one order of magnitude higher than this [additional risk of infection of 1 in 10,000] threshold," and that "[t]he estimated risk of infection from ten such exposures is two orders of magnitude higher."[24]

The Central Valley Water Board found that the District's wastewater needed to be disinfected adequately to prevent disease. The Sacramento River near the outfall is a popular sport fishing area (REC-1 use) and there are at least 20 agricultural diversions within one mile upstream and two miles downstream of the outfall (AGR use).[25] Additionally, the Sacramento River is currently designated as a source of drinking water (MUN use).[26] Within a 2010 Progress Report on the Bay Delta Conservation Plan, there are five drinking water intakes proposed between Freeport and Courtland, near the outfall.[27] While the Central Valley Water Board could have set effluent limits equivalent to "disinfected secondary-2.2 recycled water"[28] to minimally comport with CDPH's recommendation, this would not address issues with particle-associated pathogen indicators in the District's effluent. We have previously concluded that tertiary treatment may be a reasonable requirement where the treatment is necessary to achieve compliance with water quality standards and to protect water quality.[29] The Central Valley Water Board concluded that given the very high level of public contact with the receiving water, the use of the receiving water for irrigation, and the extensive use of Delta waters as private and public water supplies, any increased risk of illness and infection from exposure to the District's wastewater does not protect beneficial uses.[30] We agree.

---

[23] Letter from Chief Gary H. Yamamoto, California Department of Public Health to Assistant Executive Officer Kenneth D. Landau, Central Valley Water Board (Jun. 15, 2010), p. 3 (first emphasis added).

[24] *Id.*, p. 2.

[25] Waste Discharge Requirements Order No. R5-2010-0114, p. F-73.

[26] State Water Board Resolution No. 88-63.

[27] See Progress Report on the Bay Delta Conservation Plan (Nov. 18, 2010), pp. 3-306, 4-15, and figure 3-52.

[28] "Disinfected secondary–2.2 recycled water" is defined as oxidized wastewater that has been disinfected such that the median concentration of total coliform bacteria does not exceed an MPN of 2.2 per 100 milliliters as a 7-day average, and the number of total coliform bacteria does not exceed an MPN of 23 per 100 milliliters in more than one sample in any 30-day period. (Cal. Code Regs., tit. 22, § 60301.220.)

[29] State Water Board Order WQ 2009-0012 (*City of Stockton*) and Order WQO 2004-0010 (*City of Woodland*). As we discussed in the *City of Woodland* order, "[t]ertiary treatment typically involves adding coagulation and filtration to a secondary treatment process. Other processes may also be used to achieve tertiary quality."

[30] Waste Discharge Requirements Order No. R5-2010-0114, p. F-77.

Given these concerns, the Permit requires an essentially pathogen-free wastewater discharge. Most technologies necessary to achieve this standard involve filtration to produce a very low-solids effluent. The Central Valley Water Board further found that filtration would have the added benefits of (1) reduction of total organic carbon, (2) substantial reductions in concentrations for copper, mercury, total suspended solids, and biochemical oxygen demand, and (3) potential reduction of other constituents. We conclude that the Central Valley Water Board appropriately adopted effluent limitations for total coliform organisms and filtration requirements at a level necessary to protect existing downstream beneficial uses for the Delta.

Consideration of Costs

The federal Clean Water Act permits states to establish their own effluent limitations as long as they are not "less stringent" than those set forth in the Clean Water Act.[31] The Porter-Cologne Water Quality Control Act (Porter-Cologne Act) requires regional water boards to implement the Clean Water Act in California and requires them to consider, among other things, "economic considerations"[32] when establishing water quality objectives. When establishing waste discharge requirements pursuant to Water Code, section 13263, the Porter-Cologne Act cross-references these economic considerations.[33] The California Supreme Court has concluded that because both laws require regional water boards to comply with federal standards, and because the supremacy clause of the U.S. Constitution requires state law to yield to federal law, a regional water board is only required to consider economic factors (e.g., a discharger's cost of compliance) when an effluent limitation is more stringent than federal law requires.[34]

The District contends that the Central Valley Water Board failed to comply with Water Code, section 13241 by failing to adequately analyze and support the "costs of compliance" in its imposition of effluent limitation for total coliform organisms. To the contrary, the record shows that the Central Valley Water Board went above and beyond what is required.

As explained in greater detail below, the Central Valley Water Board considered a wide range of economic information when establishing the Permit's requirements for total coliform organisms. There are sound policy reasons for the regional water boards to consider

---

[31] 33 U.S.C. § 1370.

[32] Wat. Code, § 13241.

[33] See Wat. Code, § 13263, subd. (a) (referring to Wat. Code, § 13241).

[34] *City of Burbank v. State Water Resources Control Bd.* (2005) 35 Cal.4th 613, 618.

the economic information and data presented to them or in certain circumstances to develop the information on their own. In this case though, the Clean Water Act imposed a lesser legal obligation on the Central Valley Water Board than the economic consideration it undertook.

The Central Valley Water Board calculated a numeric effluent limitation to implement existing narrative water quality objectives set forth in the Basin Plan. In these circumstances, the Central Valley Water Board could not use economic considerations, such as "compliance costs to justify pollutant restrictions that do not comply with federal clean water standards."[35] Under state law, the water boards establish beneficial uses and water quality objectives in their basin plans. Together with an anti-degradation policy, these beneficial uses and water quality objectives serve as water quality standards under the Clean Water Act. In Clean Water Act parlance, state beneficial uses are called "designated uses" and state water quality objectives are called "criteria."[36]

The Basin Plan's narrative water quality objectives for the Delta are water quality standards pursuant to Clean Water Act, section 303(c).[37] Clean Water Act, section 301(b)(1)(C) generally requires that NPDES permits include effluent limits for all pollutants, such as total coliform organisms, that can be discharged at levels that can cause or contribute to a violation of water quality standards.[38] As the California Supreme Court recently explained, the Clean Water Act requires that "publicly operated wastewater treatment plants . . . must comply with the act's clean water standards, regardless of cost."[39] Because the total coliform limits established by the Central Valley Water Board are implementing existing water quality objectives that serve as water quality standards, there is no requirement to consider economics.

Despite the absence of any legal requirement to consider economics, the Central Valley Water Board did consider economic factors through the submission of the District's anti-degradation analysis and three economic studies.[40] Additionally, the various presentation materials and the board meeting transcript demonstrate that economic

---

[35] *City of Burbank v. State Water Resources Control Bd.* (2005) 35 Cal.4th 613, 626

[36] Compare 40 C.F.R. § 131.3(b) & (f) with Wat. Code, § 13050, subds. (f) and (h). The terms are interchangeable, and below we use the relevant term depending on the statutory scheme.

[37] 33 U.S.C. § 1313(c). See also 40 C.F.R. § 131.3(b).

[38] 33 U.S.C. § 1311(b)(1)(C).

[39] *City of Burbank v. State Water Resources Control Bd.*, *supra*, 35 Cal.4th 613 at p. 626 (citing, in part, 33 U.S.C. § 1311(b)(1)(C)).

[40] Economic & Planning Systems, Inc., *Sacramento Regional County Sanitation District Potential Fee Increase Feasibility Analysis* (Oct. 8, 2010); Trussell, R. Shane, et al., *Ammonia Removal Cost Alternatives for the Sacramento Regional Wastewater Treatment Plant* (May 31, 2010); Michael & Pogue, *Advanced Wastewater Treatment for Nutrient Reduction: Impact on Sacramento Income and Employment* (Aug. 23, 2010).

considerations were presented, commented upon, and discussed at some length by Central Valley Water Board staff, the District, the public, and board members during the meeting. While having no legal obligation to do so, the Central Valley Water Board carefully considered economics, including the economic ramifications of its decision to adopt the Permit.

Denial of Mixing Zone for Ammonia

The Permit contains final average monthly and maximum daily effluent limitations for total ammonia nitrogen of 1.8 milligrams per liter (mg/L) as nitrogen and 2.2 mg/L as nitrogen, respectively. The Central Valley Water Board set its limits based on the current U.S. EPA *Update of Ambient Water Quality Criteria for Ammonia*[41] (1999 Criteria) and decided to not allow a mixing zone. Absent a mixing zone, a discharger must meet effluent limitations at the point of discharge. The Central Valley Water Board based its decision, in part, on confirmed aquatic life impacts and the need to protect downstream beneficial uses. Generally, the District asserts that its request for a mixing zone and dilution credits was inappropriately denied. It claims that the Central Valley Water Board lacks sufficient evidence and what evidence it does have in the record is unreliable.

The Central Valley Water Board has been examining the effects of ammonia on the Delta for many years and notified dischargers that permits may be modified in the future as information becomes more definitive.[42] However, absolute scientific certainty is not required in order for the Central Valley Water Board to exercise its judgment.[43] Absolute consensus of the experts almost never occurs in science, including consensus as to the demarcation between acceptable versus toxic amounts of ammonia in system as complex as the Delta. Ammonia's ecological effects are the subject of ongoing study, not just by the Central Valley Water Board, but by a multitude of public agencies, including U.S. EPA. Mindful of this backdrop, we inquire whether the Central Valley Water Board, relying on the federal NPDES regulations, relied upon sound science informed by an appropriate exercise of discretion to supplement the 1999 Criteria.

The Permit defines mixing zones as "a limited volume of receiving water that is allocated for mixing with a wastewater discharge where water quality criteria can be exceeded

---

[41] 1999 Update of Ambient Water Quality Criteria for Ammonia (U.S. EPA, Dec. 1999) (EPA-822-R-99-014).

[42] See State Water Board Order WQ 2009-0012 (*City of Stockton*), pp. 8-9.

[43] *In re: City of Attleboro, MA Wastewater Treatment Plant*, 14 E.A.D. ___, 2009 WL 2985479 (U.S. EPA Environmental Appeals Board, Sep. 15, 2009).

without causing adverse effects to the overall water body."[44] Mixing zones are allowable because "[i]t is not always necessary to meet all water quality criteria within the discharge pipe to protect the integrity of the water body as a whole. Sometimes it is appropriate to allow for ambient concentrations above the criteria in small areas near outfalls."[45] The effects of allowing a mixing zone are less stringent effluent limitations and, depending on the constituent involved, additional mass loading of the constituent downstream of the discharge.

For priority pollutants,[46] the state and regional water boards may grant mixing zones and dilution credits to NPDES-permitted discharges in accordance with the provisions in the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (SIP). For non-priority pollutants, such as ammonia and nitrate, the State Water Board has previously held that regional water boards may use the SIP and U.S. EPA's *Technical Support Document for Water Quality-Based Toxics Control* (TSD) as guidance for determining whether and to what extent to allow dilution credits and a mixing zone.[47] When applying SIP and TSD methodologies, a regional water board may not grant a mixing zone if it would "compromise the integrity of the entire water body" or "adversely impact biologically sensitive or critical habitats."[48] A regional water board's authorization of dilution credits or a mixing zone is discretionary and the burden to prove that the approval of either does not violate the SIP or the applicable basin plan falls on the discharger.[49] When reaching a conclusion using SIP methodologies, a regional water board "shall use all available, valid, relevant, representative data and information, *as determined by the* [*regional water board*].[50]

Applying SIP methodologies, the Central Valley Water Board first used the 1999 Criteria to translate its narrative toxicity objective to determine whether the discharge has

---

[44] Waste Discharge Requirements Order No. R5-2010-0114, p. A-4.

[45] Water Quality Standards Handbook (U.S. EPA, 2d ed., 1994), § 5.1.1, p. 5-5.

[46] Priority pollutants are the 126 toxic pollutants for which U.S. EPA has established test methods and required or established criteria to protect designated uses in the California Toxics Rule. (See 40 C.F.R. § 131.38.)

[47] State Water Board Order WQO 2004-0013 (*Yuba City*), p. 6; see also State Water Board Order WQ 2001-16 (*Napa Sanitation Dist.*), p. 24. The TSD provides technical guidance for assessing and regulating the discharge of toxic pollutants to surface waters. The TSD is intended to be guidance only and does not establish or affect any legal rights or obligations.

[48] SIP, p. 17. We emphasize that when granting a mixing zone pursuant to the SIP, the conditions that "shall not" occur are listed in the disjunctive. A regional water board need only find that a single condition potentially exists to deny a mixing zone pursuant to the SIP.

[49] State Water Board Order WQ 2009-0012 (*City of Stockton*), p. 9; State Water Board Order WQO 2002-0012 (*East Bay Municipal Utility Dist.*), p. 13.

[50] SIP, p. 5 (emphasis added).

reasonable potential to cause or contribute to a violation of that objective. The Basin Plan's toxicity objective states:

> All waters shall be maintained free of toxic substances in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life. This objective applies regardless of whether the toxicity is caused by a single substance or the interactive effect of multiple substances. Compliance with this objective will be determined by analyses of indicator organisms, species diversity, population density, growth anomalies, and biotoxicity tests of appropriate duration or other methods as specified by the Regional Water Board.
>
> The Regional Water Board will also consider all material and relevant information submitted by the discharger and other interested parties and numerical criteria and guidelines for toxic substances developed by the State Water Board, the California Office of Environmental Health Hazard Assessment, the California Department of Health Services, the U.S. Food and Drug Administration, the National Academy of Sciences, the U.S. Environmental Protection Agency, and other appropriate organizations to evaluate compliance with this objective.

Having determined that the District's discharge had a reasonable potential to violate this objective, the Central Valley Water Board then considered whether a mixing zone and dilution were appropriate based on relevant information. It concluded that the allowance of a mixing zone for ammonia would: "compromise the integrity of the entire water body" and "adversely impact biologically sensitive or critical habitats."[51]

The District contends that the Central Valley Water Board must use a proposed state criterion, or an explicit state policy or regulation interpreting its narrative toxicity objective supplemented with other relevant information to establish effluent limitations.[52] The District is incorrect. Pursuant to the relevant federal regulation, when a state has not established a water quality criterion for a specific chemical pollutant, the permitting agency may use one or more of three listed options to establish a water quality-based effluent limitation that implements a narrative criterion.[53] The District claims that the Central Valley Water Board must choose the first option. The Central Valley Water Board instead chose the second option by "[e]stablishing effluent limits on a case-by-case basis, using [U.S.] EPA's water quality criteria, published under section 304(a) of the CWA, supplemented where necessary by other relevant information." It used the 1999 Criteria to establish the numerical water quality-based effluent limitation that interprets its narrative toxicity objective, and supplemented that determination with other

[51] These reasons from the SIP have their origin in the TSD and are more aptly address the sizing of an approved mixing zone rather than the initial approval or denial of a mixing zone.

[52] District's Petition for Review of Waste Discharge Requirements Order No. R5-2010-0114 (SWRCB/OCC File A-2144(a)), p. 61.

[53] 40 C.F.R. § 122.44(d)(1)(vi).

relevant information that allowing a mixing zone would not adequately protect beneficial uses or implement the narrative criteria.

The Central Valley Water Board derived effluent limitations, in part, based on other relevant information that granting a mixing zone for the 1999 Criteria are not protective of beneficial uses in the receiving water. A significant portion of the District's petition concerns the "other relevant information" used by the Central Valley Water Board and its interpretation of that information. The District's contention that aquatic life beneficial uses are protected when the 1999 Criteria are met at the edge of the mixing zones is predicated on the assumption that the criteria are adequate to protect beneficial uses. The Central Valley Water Board was mindful that the fully mixed discharge implements the 1999 Criteria. The Permit acknowledges that, "[t]he discharge, when the approved mixing zones are considered, is in compliance with current [1999] USEPA acute and chronic ammonia criteria."[54]

In this case, though, the Central Valley Water Board had before it ample evidence showing that the 1999 Criteria are not sufficiently protective. The record indicates that existing levels of ammonia in the receiving water are not protective of aquatic life beneficial uses downstream of the discharge even though the receiving water does not exceed the 1999 Criteria.[55] The TSD provides guidance that, as in this case, where adverse effects have been observed far downstream, rather than confined to a mixing zone, mixing zones may be denied where such denial is used as a device to compensate for uncertainties in the protectiveness of water quality criteria.[56] In this respect, the Central Valley Water Board appropriately supplemented the available water quality criteria with other relevant information.

Draft 2009 Ammonia Criteria

The Central Valley Water Board examined U.S. EPA's *Draft 2009 Update Aquatic Life Ambient Water Quality Criteria for Ammonia – Freshwater* (Draft 2009 Criteria) in considering whether to grant a mixing zone. The District contends that this is inappropriate because it is a draft, not peer reviewed, and not available for use in a regulatory setting. The

[54] Waste Discharge Requirements Order No. R5-2010-0114, p. J-1.

[55] Werner, I., et al., *The Effects of Wastewater Treatment Effluent- Associated Contaminants on Delta Smelt*, (Sept. 26, 2008); Werner, I., et al., *Acute toxicity of Ammonia/um and Wastewater Treatment Effluent-Associated Contaminant on Delta Smelt*, (2009); Foe, Chris, *Nutrient Concentrations and Biological Effects in the Sacramento-San Joaquin Delta*, (May 2010); Teh, S. et al., *Full Life-Cycle Bioassay Approach to Assess Chronic Exposure of Pseudodiaptomus forbesi to Ammonia/Ammonium.* The technical and scientific bases for these conclusions are discussed more fully below in the discussion of the Draft 2009 Criteria and ammonia's impact on copepods.

[56] TSD, p. 34.

District would be correct if the Central Valley Water Board had used the Draft 2009 Criteria to interpret its narrative toxicity objective, but that is not the case. Instead the Central Valley Water Board used the scientific literature that is the basis for the Draft 2009 Criteria as "other relevant information" to deny a mixing zone.

Once finalized, the Draft 2009 Criteria will update the existing water quality criteria for ammonia and include more stringent chronic toxicity values for ammonia based on studies of ammonia as a toxicant to freshwater mussel species of the family Unionidae (Unionid mussels). The choice of freshwater mussels as a chronic toxicity endpoint in the Draft 2009 Criteria is mainly due to U.S. EPA's current reconsideration of relatively recent, peer-reviewed, scientific literature regarding ammonia toxicity to Unionid mussels.[57] Unionid mussels are indigenous to many freshwater habitats in North America, including the Central Valley. The Permit notes that the freshwater Unionid mussel *Anadonata* sp. is present in the Sacramento watershed upstream of the City of Sacramento and in the Delta.[58] *Anadonata* disperses during a larval stage in which it attaches to passing fish. It is present upstream of the Facility's discharge point and downstream in the Delta. Therefore, *Anadonata* is likely present in the Sacramento River within the vicinity of the outfall. The peer-reviewed scientific literature forming the basis of the Draft 2009 Criteria leads to the conclusion that Unionid mussels, such as *Anadonata,* would exhibit toxic effects from ammonia levels higher than the 1999 Criteria. The peer-reviewed scientific literature provides "other relevant information" that the Central Valley Water Board could rely upon to deny a mixing zone in order to protect local, freshwater mussels.

We conclude that the Central Valley Water Board correctly used the peer-reviewed scientific literature that forms the basis of the Draft 2009 Criteria in determining the appropriateness of a mixing zone for ammonia. The Central Valley Water Board appropriately applied its narrative objective for toxicity by considering relevant information supplied by other agencies, researchers, and other sources of credible scientific/technical information as required by its toxicity objective and Code of Federal Regulations, title 40, section 122.44(d)(1)(vi). It also established that Unionid mussels are present in the Sacramento

---

[57] See Draft 2009 Criteria, Appx. A and C. The Draft 2009 Criteria rely on several peer-reviewed studies, including: Goudreau, S.E., et al., *Effects of Wastewater Treatment Plant Effluents on Freshwater Mollusks in the Upper Clinch River, Virginia, USA*, (1993); Mummert, A.K., et al., *Sensitivity of Juvenile Freshwater Mussels (Lampsilis fasciola, Villosa iris) to Total and Un-ionized Ammonia*, (2003); Newton, T.J. and Bartsch, M.R., *Lethal and Sublethal Effects of Ammonia to Juvinile lampsilis Mussels (Unionidae) in Sediment and Water-Only Exposures*, (2007); Wang, N., et al., *Contaminant Sensitivity of Freshwater Mussels: Chronic Toxicity of Copper and Ammonia to Juvenile Freshwater Mussels (Unionidae)*, (2007).

[58] Waste Discharge Requirements Order No. R5-2010-0114, p. J-3.

River and are likely present in the immediate vicinity of the outfall. Further, water quality data submitted to the Central Valley Water Board establishes ammonia toxicity that appears to be attributable to the District's outfall. Specifically, the outfall is approximately 4,200 feet upstream of the Cliff's Marina sample station, which has regularly sampled elevated ammonia levels.[59] As noted by the Central Valley Water Board, up to 41 percent of samples obtained annually during 2007-2009 from this location exceeded the Draft 2009 Criteria for Unionid mussels.[60] The Central Valley Water Board appropriately denied the request for a mixing zone, because ammonia toxicity to Unionid mussels is one of the contributing factors compromising the integrity of the water body.

Ammonia Toxicity to Copepods Compromises the Integrity of the Entire Water Body

Evidence of ammonia's toxicity to copepods is another reason that the Central Valley Water Board denied the District's request for a mixing zone. The District contends that the Permit's findings regarding acute and chronic toxicity to Delta copepods (*Eurytemora affinis* and *Pseudodiaptomus forbesi*) are based on preliminary and questionable study results. Specifically, the District contends, in part, that the study's laboratory work was not peer reviewed and it uses novel organisms that have no established protocols or comparable results. We find neither of these arguments persuasive.

The Central Valley Water Board considered Dr. Swee Teh's 31-day full life-cycle bioassay results with *P. forbesi*. It used the results as one reason to deny a mixing zone and support the need for downstream ammonia reduction. The full life-cycle test results were presented at a July 2010 meeting of the Interagency Ecological Program (IEP) Contaminant Work Team.[61] The results demonstrated that ammonia concentrations as low as 0.36 milligrams of nitrogen per liter negatively affected *P. forbesi* reproduction, nauplii (a juvenile life stage for copepods) survival, or both. Ammonia concentrations greater than 0.36 mg/L of nitrogen are routinely measured for up to 30 miles downstream of the District's outfall, while concentrations upstream are an order of magnitude lower.[62] Central Valley Water Board staff asked Dr. Teh to repeat the reproduction/nauplii survival part of the bioassay procedure

[59] In addition to the other upstream regulated point sources, the State Water Board is aware of other undocumented sources of ammonia.

[60] *Id.*, p. J-4.

[61] Dr. Swee Teh, University of California, Davis, Full Life-Cycle Bioassay Approach to Assess Chronic Exposure of *Pseudodiaptomus forbesi* to Ammonia/Ammonium, (July 2010), slides 15-17.

[62] Foe, C., Ballard, A., and S. Fong, Central Valley Water Board, *Nutrient Concentrations and Biological Effects in the Sacramento-San Joaquin Delta*, (May 2010).

because the previous results showed aquatic toxicity at ammonia concentrations much lower than the 1999 Criteria to protect freshwater aquatic organisms. Dr. Teh did so and his additional studies confirmed earlier preliminary findings that ammonia concentrations as low as 0.36 mg/L of nitrogen impaired *P. forbesi*'s reproduction and juvenile life-stage survival.

The District correctly notes that none of the laboratory work for Dr. Teh's studies was peer reviewed. While peer review can elevate the weight given to scientific work, the lack of peer review is not a reason to exclude scientific data. There is no requirement that laboratory work be peer reviewed. The study was commissioned after comments were received at the fall 2009 Ammonia Summit that the 1999 Criteria might not be protective of freshwater copepods. These comments theorized that part of the reason for the collapse of native fish in the Delta might be because their young were having trouble finding food. *P. forbesi* is an important prey item for both larval Delta smelt and Longfin smelt. The study plan was reviewed by the ammonia subcommittee of the IEP Contaminant Work Team and followed U.S. EPA standard toxicity testing procedures (EPA-821-R-02-012; EPA-821-R-02-013) as much as possible. The results of the full life-cycle test were reviewed by the IEP Contaminant Work Team at a July 2010 meeting. Under these circumstances, the Central Valley Water Board could consider Dr. Teh's laboratory work as relevant evidence to support its decision to deny an ammonia mixing zone. The available scientific evidence indicates that ammonia toxicity to copepods is one of the contributing factors compromising the integrity of the entire water body.

Ammonia Toxicity is Adversely Impacting Biologically Sensitive or Critical Habitats

As would be expected, ammonia's toxic effect on copepods also affects those species that feed on copepods. The District contends that the Permit fails to include supported findings to show that its discharge is adversely impacting biologically sensitive or critical habitats, either inside or outside the acute and chronic aquatic life mixing zones. Again, we disagree and find that the record supports the Central Valley Water Board's determination that the District's discharge of ammonia affects designated critical habitat for species listed as endangered under the Endangered Species Act.

The Sacramento River at Freeport is within the designated critical habitat for several federally listed fish species including winter- and spring-run Chinook salmon (*Oncorhynchus tshawytscha*), Steelhead (*Oncorhynchus mykiss*), Delta smelt (*Hypomesus transpacificus*) and Green sturgeon (*Acipenser medirostris*). In addition, the U.S. Fish and Wildlife Service recently identified the San Francisco Bay-Delta population of the Longfin smelt

(*Spirinchus thaleichthys*) as a candidate species for protection under the federal Endangered Species Act.[63] The Central Valley Water Board concluded that:

> ammonia concentrations inhibited diatom primary production rates and caused *P. forbesi* toxicity outside the mixing zone. Inhibition of diatom growth by elevated ammonia concentrations has been documented between Rio Vista and Suisun Bay. This is a primary spawning and nursery area for Delta smelt and Longfin smelt and an important rearing area for striped bass. Ambient ammonia concentrations are also sufficiently high to cause toxicity to the copepod *P. forbesi* as far downstream as Isleton (28 miles downstream of the discharge). The Sacramento River between the discharge and Isleton is a rearing area for striped bass. Phytoplankton, such as diatoms, are a primary food resource for many zooplankton species including *P. forbesi*[64] and these in turn are a major item in the diet of all three of the above fish species. Therefore, the discharge is adversely affecting critical fish habitat by reducing, both directly and indirectly, the amount of available food for the young of these three important fish species. The conclusion that the collapse of these fish populations might be caused by the quantity and quality of available food is not new. The hypothesis was first presented in the peer reviewed literature in 2007 and has been termed the "bottom-up" hypothesis.[65] What is new is the emerging information about the effect of ammonia on diatom production and *P. forbesi* reproduction and survival.[66]

The National Marine Fisheries Service echoed these comments.[67] We concur with the Central Valley Water Board's conclusion that ammonia toxicity to copepods is likely a factor adversely affecting candidate, threatened, or endangered species populations (sometimes referred to as pelagic organism decline) in the Delta and that the Permit's findings are supported by the administrative record.

---

[63] 77 Fed. Reg 19756 (Apr. 2, 2012). The U.S. Fish and Wildlife Service found that the available scientific information warranted listing the Bay Delta distinct population segment of Longfin smelt as threatened or endangered, but because of other priorities, the Service would only place the Longfin smelt on the candidate list. We take official notice of the listing (Cal. Code Reg., tit. 23, § 648.2) as it occurred after briefing was complete. The listing is only cumulative of other evidence, though, of vulnerable specifies and habitat in the lower Sacramento River.

[64] In its response, the Central Valley Water Board clarified that this was not a basis for the ammonia effluent limitations. (See Response to Petitions for Review of Waste Discharge Requirements Order No. R5-2010-0114 (SWRCB/OCC File A-2144(a) and A-2144(b)), p. 53.)

[65] Sommer, Ted, et al., *The Collapse of Pelagic Fishes in the Upper San Francisco Estuary*, (June 2007).

[66] Central Valley Water Board's Response to Petitions for Review of Waste Discharge Requirements Order No. R5-2010-0114 (SWRCB/OCC File A-2144(a) and A-2144(b)), p. 41.

[67] Letter from Maria R. Rea, Central Valley Office Supervisor, National Marine Fisheries Service to James D. Marshall, Senior Water Resources Control Engineer, Central Valley Water Board (Oct. 13, 2010).

Final Ammonia Effluent Limitation Calculation

As previously mentioned, the Permit contains final average monthly and maximum daily effluent limitations for total ammonia nitrogen of 1.8 mg/L as nitrogen and 2.2 mg/L as nitrogen, respectively. The Central Valley Regional Water Board made changes to the final adopted version of the Permit in the Fact Sheet discussion of ammonia criteria that are not reflected within effluent limitation calculations shown in Attachment H of the Permit. Originally, the Permit calculated the water quality-based effluent limitation using the 1999 Criteria's acute criterion for ammonia based on a pH of 8.5. This resulted in an effluent limitation of 2.14 mg/L as nitrogen. Because the District indicated that it can consistently comply with a maximum performance based limit for pH of 8.0, the Central Valley Water Board changed the effluent maximum limit for pH to 8.0 and then used a pH of 8.0 and temperature of 22.5°C in determining the applicable ammonia criteria.

Based on a pH of 8.0 and a temperature of 22.5°C cited by the Fact Sheet,[68] when salmonids and early life stages are present, the 1999 Criteria recommend acute and chronic criteria for ammonia nitrogen are 5.62 mg/L as nitrogen and 1.45 mg/L as nitrogen, respectively. It would appear that the effluent limitations calculated by the Central Valley Water Board in Attachment H are incorrectly based on acute and chronic criteria for ammonia nitrogen of 2.14 mg/L as nitrogen and 1.68 mg/L as nitrogen, respectively. The 2.14 mg/L no longer applies since a pH of 8.5 is no longer applicable. Additionally, the 1.68 mg/L chronic criterion does not appear to coincide with a pH of 8.0 and temperature of 22.5°C. Therefore, in this case where mixing zones and dilution credits are denied, the correct lower chronic criterion of 1.45 mg/L should govern over the correct acute criterion of 5.62 mg/L for the development of ammonia effluent limitations when using the SIP methodology. On remand, the Central Valley Water Board should review the ammonia criteria that are applicable to the District's discharge and make corrections to the final ammonia effluent limitation calculations and limitations, as appropriate.

Nitrate (Nutrients)

For the same reasons discussed concerning ammonia, the Central Valley Water Board has the discretion to grant or deny a mixing zone for nitrate using the SIP and TSD methodologies as guidance. The Basin Plan allows the Central Valley Water Board to:

[68] Waste Discharge Requirements Order No. R5-2010-0114, p. F-55.

> designate mixing zones . . . for different types of objectives, including, but not limited to, acute aquatic life objectives, chronic aquatic life objectives, [and] human health objectives . . . depending in part on the averaging period *over which the objectives apply*. In determining the size of such mixing zones, the Regional [Water] Board will consider the applicable procedures and guidelines in the [U.S.] EPA's Water Quality Standards Handbook and the [TSD].[69]

In the Permit, the Central Valley Water Board set the final effluent limitation equal to U.S. EPA's primary maximum contaminant level (Primary MCL) for drinking water for nitrate as nitrogen of 10 mg/L without allowance for a mixing zone and dilution credit.[70]

Currently, the Facility discharges very low concentrations of nitrate, because the nitrogen discharge is in the form of ammonia. The Permit, however, now requires the Facility to fully nitrify[71] in order to meet its ammonia effluent limitations. Following full nitrification, the discharge will have reasonable potential to exceed the Primary MCL for nitrate and may necessitate denitrification. Nitrate generates two relevant concerns. First, excessive nitrates in drinking water pose a human health concern, particularly for human fetuses and infants. Second, excessive nitrogen in the form of nitrates can contribute to excessive algal growth and change the ecology of a waterbody. The Central Valley Water Board denied a mixing zone stating that it did so to protect beneficial uses, specifically municipal and domestic supply (MUN), and because a human health mixing zone for nitrate does not comport with the SIP's requirements.

The District contends that an effluent limitation equal to the Primary MCL is unnecessary to protect the MUN beneficial use. We agree with the District as it relates to protecting the MUN beneficial use from nitrate. The Central Valley Water Board states that there is sufficient dilution available in the Sacramento River that, after mixing, the river will not exceed the nitrate drinking water standard.[72] Therefore, it appears that for the protection of the MUN beneficial use solely from nitrate, an effluent limitation equal to the Primary MCL was not

---

[69] Basin Plan, p. IV-16.00, col. 2 (emphasis added).

[70] Throughout this discussion, when referring to the nitrate limitation and Primary MCL level of 10 mg/L, we mean the result to be expressed as nitrate as nitrogen, as opposed to the equivalent result of 45 mg/L expressed as NO_3 (nitrate). The reason for the 4.5 factor difference is because the ratio of atomic weights between NO_3 (62.5 mg) and N (14 mg) is approximately 4.5.

[71] Full nitrification refers to the conversion of ammonia all the way to nitrate, while partial nitrification would only convert the ammonia to nitrite. Discharge of nitrite may cause a demand for oxygen in the receiving water, which would create its own adverse water quality impacts. Thus the Central Valley Water Board required full nitrification as the appropriate type of treatment.

[72] Central Valley Water Board's Response to Petitions for Review of Waste Discharge Requirements Order No. R5-2010-0114 (SWRCB/OCC File A-2144(a) and A-2144(b)), p. 62.

necessary since the standard of 10 mg/L would have been at the boundaries of an appropriately sized mixing zone.

The District further contends that the denial of a mixing zone for nitrate is improper, in part, because "the denial [of a human health mixing zone] has nothing to do with the merits of a human health mixing zone."[73] Again, we agree with the District. In this case, the water quality objective for which a mixing zone was denied is based on human health. However, the reasons for denying the mixing zone were related to aquatic and ecological impacts. This does not comport with what the Basin Plan and TSD specify in allowing or denying mixing zones.[74]

A mixing zone can be denied if it is determined that the receiving water already exceeds the water quality objective that was used to establish the effluent limitation or "to compensate for uncertainties in the protectiveness of the water quality criteria."[75] With respect to nitrate, however, the receiving water provides assimilative capacity and dilution to meet the water quality objective that protects human health requirements. The Permit's Findings do not support a conclusion that there are uncertainties in the protectiveness of the water quality objective from a human health perspective. As a result, the denial of a mixing zone relying on the Primary MCL for nitrate of 10 mg/L is inappropriate.

The foregoing conclusion with respect to the nitrate mixing zone contrasts with our previous discussion of ammonia because of the manner in which water quality objectives and criteria protect specific uses. Water quality objectives protect specific beneficial uses. The water quality objectives that protect aquatic life are different from those that protect human health, and will create different permit limitations. Similarly, a permit writer must be mindful of the nexus between objectives and uses in each analytical step when deriving a water quality-based effluent limitation to implement a water quality objective. The decision to grant or deny a mixing zone for a pollutant should, in each analytical step, consider the use that is being protected by the applicable water quality objective. With respect to ammonia, the uses were

---

[73] District's Petition for Review of Waste Discharge Requirements Order No. R5-2010-0114 (SWRCB/OCC File A-2144(a)), p. 125.

[74] TSD, p. 33 states: "In the general case, where a State has both acute and chronic aquatic life criteria, as well as human health criteria, independently established mixing zone specifications may apply to each of the three types of criteria. The acute mixing zone may be sized to prevent lethality to passing organisms, the chronic mixing zone sized to protect the ecology of the waterbody as a whole, and the health criteria mixing zone sized to prevent significant human risks. For any particular pollutant from any particular discharge, the magnitude, duration, frequency, and mixing zone associated with each of the three types of criteria will determine which one most limits the allowable discharge."

[75] TSD, p. 34.

aquatic life, the criteria were designed to protect aquatic life, and the mixing zone was denied based on other relevant information that the recommended 1999 Criteria were not protective of aquatic life. Each step was tied to the aquatic life use. In contrast, with respect to nitrate, the use was MUN beneficial use, the water quality objective was to protect human health, but the mixing zone was denied based on information that nitrate discharges have biostimulatory effects unrelated to drinking water protection. The last analytical step for nitrates uncoupled the use to be protected from the objective providing the protection. There does not appear to be evidence that any further restrictions are necessary to protect human health with respect to the nitrate discharges. As a result, the Central Valley Water Board improperly denied a human health mixing zone derived from the Primary MCL for nitrate.[76]

Although we have concluded that the Central Valley Water Board's denial of a mixing zone for nitrate in order to comply with the Primary MCL was not appropriate, that does not conclude our review. Further limitations on nutrient discharges are likely necessary based on the evidence in the record showing ecological and aquatic impacts from nutrients in the waterbodies downstream of the discharge. Both the Central Valley Water Board's and the San Francisco Bay Water Board's Basin Plans contain a narrative objective for biostimulatory substances that states "[w]ater shall not contain biostimulatory substances which promote aquatic growths in concentrations that cause nuisance or adversely affect beneficial uses."[77] The San Francisco Bay Water Board's narrative objective further states "[c]hanges in chlorophyll a and associated phytoplankton communities follow complex dynamics that are sometimes associated with a discharge of biostimulatory substances. Irregular and extreme levels of chlorophyll a or phytoplankton blooms may indicate exceedance of this objective and require investigation." Therefore, the Central Valley Water Board could determine the need to set a limitation for nitrogen based on reasonable potential to exceed the downstream biostimulatory substances water quality objective.

Downstream beneficial uses must be protected, and in this case those downstream uses are in the Delta and San Francisco Bay, as well as Suisun Bay. U.S. EPA's current Section 303(d) list of impaired water bodies lists the Suisun Marsh Wetlands as impaired

[76] The Central Valley Water Board should reconsider the allowance of dilution credits and a mixing zone, but must do so based on an approach consistent with this Order's discussion of the grounds on which a mixing zone may be denied. In addition, the Permit also established a reasonable potential for the discharge to exceed the nitrite MCL of 1 mg/L. Since there is also reasonable potential for nitrite to exceed the MCL of 1 mg/L, it seems appropriate that the effluent limitation be expressed as the sum of nitrate and nitrite.

[77] Basin Plan, p. III-3.00; San Francisco Bay Basin Water Quality Control Plan, p. 3-3.

for nutrients.[78] There is enough evidence in the record of cyanobacteria in the Delta, and phytoplankton blooms in the San Francisco Bay (including blooms of *Heterosigma akashiwo*) to demonstrate that biostimulation is occurring, even if diatom populations in Suisun Bay are not experiencing bloom conditions.[79] The District's outfall contributes substantial nutrients, nitrogen (currently as ammonia) and phosphorus, directly to the Delta.

The Central Valley Water Board was certainly justified in being concerned about total nutrient loading from the District's discharge even after full nitrification. Among the reasons for concern are: (1) the impairment by nutrients to the Suisun Marsh Wetlands; (2) data showing that the nutrient concentrations downstream of the discharge are more than double the upstream concentrations; and (3) data showing that the levels of total nitrogen and total phosphorus in the discharge consistently exceed U.S. EPA's recommended Aggregate Ecoregion 1 nutrient levels.[80] While these concerns are appropriate, they do not resolve the issue of the appropriate limitations on nutrient loading from the Facility's discharge.

State and regional water board staffs, working collaboratively with U.S. EPA, have developed a draft science-based approach to translate narrative water quality objectives for biostimulatory substances to numeric target thresholds for inland surface waters. This approach, known as the Nutrient Numeric Endpoint (NNE) framework, establishes a suite of biologically based numeric endpoints to address nutrient over-enrichment and eutrophication. A draft NNE framework currently exists for streams and lakes. In order to be employed, the NNE framework requires a conceptual model specific to the water body. The NNE framework for San Francisco Bay, the Delta, and smaller estuaries is currently under development. Staff will be presenting the NNE framework, in concert with a statewide policy for nutrient control for inland surface waters for future State Water Board consideration.

---

[78] While the Suisun Marsh is not within the legal boundaries of the Delta, it is hydrologically connected to Suisun Bay and is addressed within the Bay-Delta Conservation Plan. (See Progress Report on the Bay-Delta Conservation Plan (5th ed., Aug. 2, 2011), p. 56; compare Wat. Code, § 12220 with Pub. Resources Code, § 29101.)

[79] See Lehman, P.W., et al., *Initial Impacts of Microcystis aeruginosa Blooms on the Aquatic Food Web In the San Francisco Estuary* (Dec. 2009); Lehman, P.W., et al., *The Influence of Environmental Conditions on the Seasonal Variation of Microcystis Cell Density and Microcystins Concentration in the San Francisco Estuary* (2008); Dugdale, R.C., et al., *The Role of Ammonium and Nitrate in Spring Bloom Development in San Francisco Bay* (2007); Lehman, P.W., et al. *Phytoplankton Biomass, Cell Diameter, and Species Composition in the Low Salinity Zone of Northern San Francisco Bay Estuary* (2000).

[80] Ambient Water Quality Criteria Recommendations, Rivers and Streams in Ecoregion I (U.S. EPA, Dec. 2001) (EPA 822-B-01-012). Ecoregion 1 includes the Central Valley and recommends a median concentration of 0.66 mg/L of total nitrogen and 0.055 mg/L of total phosphorus. U.S. EPA developed these nutrient criteria recommendations with the intent that they serve as a starting point for states and Tribes to develop more refined criteria to reflect local conditions.

Given these on-going policy developments and the need to protect downstream beneficial uses, we remand the Permit to the Central Valley Water Board to re-evaluate the need to control the District's discharge of nutrients (total nitrogen and phosphorus) on a basis other than human health.[81] If a statewide nutrient policy is in effect prior to the District's ten-year compliance date for ammonia, the Central Valley Water Board shall use the policy's approved method to calculate the District's final numeric effluent limitations. If no statewide nutrient policy is in effect, the Central Valley Water Board may consider developing a site-specific conceptual model and utilize the NNE framework to calculate final nutrient numeric effluent limitations.

Public Notice Requirements

CSPA contends that the Central Valley Water Board violated U.S. EPA's regulations by making significant changes to the Permit after the closure of the public comment period without recirculating the revised permit for comment. We find that this contention lacks merit.

Federal regulations require that draft NPDES permits shall be released to the public for at least a thirty-day public comment period.[82] Courts have noted that a final permit issued by an agency need not be identical to the draft permit, which would be antithetical to the whole concept of notice and comment.[83] However, a final permit that departs from a proposed permit must be a logical outgrowth of the noticed proposal. If the interested parties reasonably could have anticipated the final version from the draft permit, then an additional notice and comment period is not required.[84] The law does not require that every alteration in a proposed permit result in a new notice and comment period.[85]

The Central Valley Water Board met its NDPES notice obligations when it noticed the draft permit on September 3, 2010. CSPA does not provide any evidence of how the draft permit was modified such that it was beyond the scope of the comments received. We have reviewed the changes made after the close of the comment period. The changes are

---

[81] If denitrification is required for the control of nutrients, the Central Valley Water Board should consider whether year-round denitrification is necessary since conditions necessary for biostimulation may not occur on a year-round basis.

[82] 40 C.F.R. § 124.10(b).

[83] *Natural Resources Defense Council v. U.S. Environmental Protection Agency* (9th Cir. 2002) 279 F.3d 1180, 1186.

[84] *Ibid.*

[85] *First Am. Discount Corp. v. Commodity Futures Trading Comm.* (D.C. Cir. 2000) 222 F.3d 1008, 1015.

within the scope of the noticed permit and responsive to comments and information received. Additionally, CSPA has not shown or even alleged that its rights were violated as a result of the modifications. The transcript of the adoption hearing shows that CSPA commented on the revisions.[86] Finally, CSPA incorrectly contends that U.S. EPA's NPDES regulations obligated the Central Valley Water Board to recirculate the revised draft permit for another public comment period. CSPA's reliance on section 124.14 of title 40 of the Code of Federal Regulations is misplaced. That section does not apply to the states, only to U.S. EPA.[87]

ORDER

IT IS HEREBY ORDERED that this matter be remanded to the Central Valley Water Board. Except for the following matters, all other aspects of the Permit are upheld. The Central Valley Water Board shall make revisions to the Permit that are consistent with this Order.

1. The Central Valley Water Board shall review the calculation of its effluent limitations for ammonia and utilize the lower chronic criterion set forth in the Fact Sheet based on a pH of 8.0 and a temperature of 22.5°C.
2. The Central Valley Water Board shall re-evaluate control of the District's discharge of nutrients (total nitrogen and phosphorus) on a basis other than human health.
3. If the Central Valley Water Board determines that denitrification is necessary to comply with the biostimulatory substances narrative objective, it should either:
    a. Calculate final numeric effluent limitations to control nutrients (total nitrogen and phosphorus) pursuant to the statewide nutrient policy if such a policy is in effect before the District's ammonia compliance date; or,
    b. If no statewide nutrient policy is in effect, the Central Valley Water Board may consider developing a site-specific conceptual model and utilize the NNE framework to calculate final nutrient numeric effluent.

///

///

///

[86] Central Valley Water Board Hearing Transcript (Dec. 9, 2010), pp. 304-313.

[87] See 40 C.F.R. § 123.25.

4. The Central Valley Water Board, in order to protect the MUN beneficial use, should reconsider the allowance of dilution credits and a mixing zone for nitrate. It should also consider whether the effluent limitation should be expressed as the sum of nitrate and nitrite.

CERTIFICATION

The undersigned, Clerk to the Board, does hereby certify that the foregoing is a full, true, and correct copy of an order duly and regularly adopted at a meeting of the State Water Resources Control Board held on _____.

AYE:

NO:

ABSENT:

ABSTAIN:

DRAFT

_____
Jeanine Townsend
Clerk to the Board

SWAMP Suisun Bay Study Meeting Agenda

Tuesday, May 22, 2012, 3:00 p.m. – 5:00 p.m.
CCCSD 2nd Floor Conference Room
5019 Imhoff Place, Martinez, CA

1) Introductions

2) Recent Permits Adopted
   a. Central Contra Costa Sanitary District (pp. 2 – 3)
   b. Vallejo Sanitary and Flood Control District
   c. Sacramento Regional / State Water Resources Control Board Draft Permit (pp. 4 – 32)

3) San Francisco Regional Water Quality Control Board Nutrient Water Quality Initiatives
   a. Numeric Nutrient Endpoint / Nutrient Strategy / 13267 Letter
   b. Suisun Marsh Dissolved Oxygen, Nutrients, and Mercury TMDL
   c. BACWA / Agencies / Other Comments on (a) and (b) (pp. 37 – 47)
   d. Studies underway by RWQCB, BACWA, CCCSD, San Francisco Estuary Institute, and Others

4) Suisun Bay Surface Water Ambient Monitoring Program (SWAMP)
   a. Ammonia
   b. Pesticides
   c. Toxicity: Algae and Copepods

5) Potential Coordination and Potential Required Collaboration (pp. 48 – 49)

6) Next Steps

BACWA EXECUTIVE BOARD ACTION REQUEST

AGENDA NO.: 11
FILE NO.: N/A
MEETING DATE: May 24, 2012

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

☒ **MOTION** ☐ **RESOLUTION**

RECOMMENDED ACTION

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

SUMMARY

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

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

BACWA Leadership History

Timeframe	Chair	Vice-Chair
2000 – 2002	Chuck Weir	Jim Kelly
2002 – 2004	Jim Kelly	Michael Carlin
2004 – Feb. 2005	Michael Carlin	Dave Williams
Mar. 2005 – July 2005	Dave Williams	Bill Keaney
July 2005 – June 2006	Bill Keaney	Chuck Weir
July 2006 – May 2007	Bill Keaney	Dave Williams
June 2007 – June 2008	Dave Williams	Dave Tucker
July 2008 – March 2010	Dave Tucker	Doug Craig
April 2010 – June 2010	Dave Tucker	Arleen Navarret
July 2010 – October 2010	Arleen Navarret	Ben Horenstein
November 2010 – present	Ben Horenstein	Tommy Moala/Laura Pagano

FISCAL IMPACT

This action has no fiscal impact.

ALTERNATIVES

This action does not require consideration of alternatives.