Executive Board Meeting Agenda

Friday, July 18, 2014, 9:00 a.m. – 12:30 p.m.
EBMUD Lab Library
2020 Wake Ave., Oakland, CA

Agenda Item	Time	Page #
ROLL CALL AND INTRODUCTIONS	9:00 a.m. – 9:03 a.m.	
PUBLIC COMMENT	9:03 a.m. – 9:04 a.m.	
CONSIDERATION TO TAKE AGENDA ITEMS OUT OF ORDER	9:04 a.m. – 9:05 a.m.	
CONSENT CALENDAR 1. June 20, 2014 BACWA Executive Board Meeting Minutes 2. April 2014 Treasurer's Report	9:05 a.m. - 9:06 a.m.	 4-7 8-14
REPORTS 3. Committee Reports 4. Executive Board Reports 5. Executive Director Report 6. Regulatory Program Manager Report 7. Other BACWA Representative Reports a. RMP-TRC: Rod Miller b. RMP Steering Committee: Karin North; Jim Ervin c. Summit Partners: Dave Williams d. ASC/SFEI: Laura Pagano; Dave Williams e. Nutrient Governance Steering Committee: Ben Horenstein; Jim Ervin f. SWRCB Nutrient SAG: Dave Williams g. SWRCB Focus Group – Bacterial Objectives: Lorien Fono; Amy Chastain h. SWRCB Focus Group – Mercury Amendments to the State Plan: Tim Potter	9:06 a.m. – 9:30 a.m.	 15-17 18-24 25-30 31 32-34 35-41 42-54 55-68
8. Chair & Executive Director Authorized Actions a. Chair Authorization of funds for extension of AED support from Alexandra Gunnell through July 24, 2014 not to exceed $9,999. b. Chair Authorization of addition of funds to agreement with Sherry Hull for Assistant Executive Director Services for fiscal year 2013-14 (FY14) not to exceed amount of $2,000 File 13, 218.	9:30 a.m. – 9:35 a.m.	69-70 71

c. Board Authorization to reallocate funds for SFEI contract(s) File(s) [12,980 to 13,064]. Reallocations: $35,000 from Moored Sensors Task and $15,000 from Monitoring Program Development; $25,000 to LSB Synthesis and $25,000 to Science Oversight and Project Management. SFEI will complete all work under all tasks and no additional funds will be required from BACWA. d. Chair Authorization to transfer funds between line items on the BAPPG FY 14 Budget in order to fund an agreement with Chinook Book in an amount not to exceed $3,400. Advertising the Baywise Website for the Bay Area Pollution Prevention Group will be included in the annual Chinook Book edition for late summer 2014 and the Chinook Coupon Application.		72-73 74
OTHER BUSINESS 9. Discussion : Additional scope of work for WBA 10. Discussion: Nutrients a. Technical Work i. Update on WS Case Studies Symposium ii. Lower South Bay Synthesis Presentation iii. Draft Scopes of Work for BACWA Funded Scientific Studies iv. Representative for Nutrient Technical Workgroup b. Regulatory i. Update on SWRCB SAG on Nutrient WQO ii. Update on Consultant Selection Process c. Governance Structure i. Debrief on 2nd Steering Committee Meeting ii. Program Coordinator iii. Steering Committee Governance Workgroup Meeting 11. Presentation: ReNUWIt Update (C. Nilsen) 12. Discussion: Agenda Items for Next Joint BACWA/WB meeting 13. Discussion: Draft comment letter on the BDCP report 14. Discussion: Draft Agenda for Pardee Technical Seminar	9:35 a.m. – 9:45 a.m. 9:45 a.m. – 10:55 a.m. 10:55 a.m. – 11:05 a.m. 11:05 a.m. – 11:25 a.m. 11:25 a.m. – 11:55 a.m. 11:55 a.m. – 12:05 p.m. 12:05 p.m. – 12:15 p.m. 12:15 p.m. – 12:30 p.m.	75-78 79-87 88-107 108-126 126-127 128-129 130-131
SUGGESTIONS FOR FUTURE AGENDA ITEMS		

NEXT REGULAR MEETING 15. The next regular meeting of the Board is scheduled for **August 15, 2014** from 9:00 am – 12:30 pm at the SF PUC, Hetch Hetchy Room, 13th Floor, San Francisco, CA.		
ADJOURNMENT	12:30 p.m.	

Executive Board Meeting Minutes

Friday, June 20, 2014, 9:00 a.m. – 12:00 p.m.
SFPUC Hetch Hetchy Room, 13th Floor,
525 Golden Gate Ave., San Francisco

ROLL CALL AND INTRODUCTIONS

Executive Board Representatives: Mike Connor, Chair (East Bay Dischargers Authority); Laura Pagano, Vice Chair (San Francisco Public Utilities Commission); Jim Ervin (San Jose); Ben Horenstein (East Bay Municipal Utility District); Roger Bailey (Central Contra Costa Sanitary District).

Other Attendees:

Amy Chastain (San Francisco Public Utilities Commission);
Joanna De Sa (San Jose);
Tim Potter (Central Contra Costa Sanitary District);
Vince De Lange (East Bay Municipal Utility District);
Bhavani Yerrapotu (Sunnyvale);
Karin North (Palo Alto);
Meg Hurston (Fairfield Suisun Sewer District);
Steve McDonald (Carollo Engineers);
Ann Farrell (West Yost Associates);
Mallika Ramaanathan (HDR);
Monica Oakley (RMC);
Amanda Roe (Diablo;
David Williams (BACWA);
Sherry Hull (BACWA).

PUBLIC COMMENT

None.

CONSIDERATION TO TAKE AGENDA ITEMS OUT OF ORDER

Discussion: Nutrients, Agenda Item # 18 was taken out of order. The Nutrient Watershed Case Studies Symposium was discussed. Key issues including date and venue have been decided: October 6, 2014 at the Water Board Facilities Auditorium. Next step is "Save the Date" ad. Multiple studies were discussed for possible inclusion including Long Island Sound, Chesapeake Bay, Tampa Bay, Saginaw Bay, and Neuse River/Pamlico Sound. Steve McDonald indicated that there are currently nine speakers on the list, with four confirmed. Laura Pagano asked if Lessons Learned was to be the theme. Dave Williams said that the message is key and Ben Horenstein noted that the overriding message must be "it's complicated."

Dave Williams attended the recent Joint meeting with the Water Board.

The RFP for the Optimization/Upgrade Studies is out and the CMG will be reviewing proposals that come in on the 27th.

An in-depth discussion of the governance structure for the Nutrient Management Strategy ensured. It was felt that a Program Coordinator is needed in order to organize all of the activities ensure timely progress on completing the scientific studies. The ED and the Chair will continue discussions with the Water Board on the need for a coordinator and how to fund the position. In the interim the Ed will help drive the needed activities of the Steering Committee.

CONSENT CALENDAR

1. May 16, 2014 BACWA Executive Board Meeting Minutes
2. March 2014 Treasurer's Report
3. Contract with David R. Williams for ED Services in FY 2014-15
4. Contract/Amendment with CH2M Hill for AIR Committee Support in FY 2014-15 for a not to exceed value of $77,064, and AIR committee Revised FY15 Budget
5. Amendment to Avila Contract for Prop 50 for a new termination date of June 30, 2015, File 11,780

Consent Calendar items 1, 2, 3, 4 and 5 *were approved in a motion made by Ben and seconded by Laura Pagano. The motion carried unanimously.*

12. Election of Officers: Ben made the motion for Mike to continue as Chair of BACWA for FY 15 and Laura as the Vice Chair. The motion was seconded by Roger. The motion carried unanimously.

REPORTS

Committee Reports were included in the handout packet for agenda **item 6. Succession of committee chairs were noted.**

AIR Committee – Dave Williams noted that Lorien Fono is on vacation. Dave Williams reported that the work needs to be done to help the communication between regulatory bodies so that there is an awareness of the impacts from regulations in one media to another e.g. nutrient removal regulations impacts on greenhouse gasses.

Collection Systems Committee report was included in the handout packet and reviewed by Dan Stevenson. Mike Connor thanked Dan and Monica Oakley noted that Victor Falzon was joining as Chair of the Committee.

Permits Committee - In Meg Herston's absence Tim Potter, distributed and reviewed the committee report. Tim reported that the Water Board has been able to fill positions and that there is a new climate there. They are reshuffling workloads. Mike Connor asked if there is a new emphasis on inspections. Several members noted that they have recently been inspected and that the climate had been professional and cordial.

Comments on the Vector Control Permit were discussed. There is a concern about relaxing the standards for pesticide applications and the potential to impact water quality. The stated rationale for relaxing the standards is that there is not enough data to document water quality impacts. This is of significant concern and so BACWA submitted a comment letter.

BAPPG noted that they will be needing assistance from Kelly Moran to continue to monitor and help develop comments as pesticides arise. The Chair will authorize a contract for assistance.

The Pretreatment Committee report was included in packet. Tim Potter noted that he was still Co-Chair. There has been good participation in the meetings. They plan on meeting annually with the regulators on pretreatment issues.

Executive Board representatives (Board) were given an opportunity to provide updates from each of the Principal agencies under agenda **item 7, Executive Board Reports.** Non-principal members were also given an opportunity to report out on behalf of their agencies. No actions were taken on the report-outs.

The **Executive Director's June Report** was included in the handout packet for agenda **item 8** and David Williams highlighted items in the report as well as the attendance at the last Info Share Operations meeting.

The **Regulatory Program Manager (RPM) Report** was included in the handout packet and reviewed briefly reviewed in Lorien's absence. A question was raised regarding coverage for the RMP functions while Lorien is on maternity leave. A report will be provided at the next meeting.
Other BACWA Representative Reports were given an opportunity to provide updates under agenda **item 10, Other BACWA Representative Reports.** No actions were taken based on the reports.

The following **Executive Director Authorized Actions** were taken since the May 16, 2014 Board meeting, listed under agenda **item 11**, and reviewed by the ED.

a. Chair Authorization of Agreement with Adammer for bacwa.org and bawise.org support in Fiscal Year 2014 - 15, in an amount not to exceed $6,500; File 13,217.
~~b.~~ Executive Director Authorization for payment of Product Stewardship Institute 2014 membership dues, $500; File 13,184.
c. Chair Authorization of agreement with Sherry Hull for Assistant Executive Director Services beginning in fiscal year 2013-14 (FY14) continuing through fiscal year 2014-15 (FY15) for a not to exceed amount of $84,500 to be funded up to $8,000 by the FY14 budget and up to $76,500 by the FY15 budget: File 13, 218.
d. Chair Authorization to reallocate funds for SFEI - Moved to July, 2014 Agenda
e. Chair Authorization of agreement with Carollo Engineers for Nutrients Symposium II support, not to exceed $9,999; File 13,220.
f. Chair Authorization for contribution to CPSC (CA Product Storage Council) for $5,000.

Dave noted that Alexandra Gunnell left on 6/6 and that this was a very short transition period. He is negotiating with EPC to allow for an additional 10 hours/week from Alexandra for approximately six weeks.

OTHER BUSINESS

Item 13. Discussion: Succession Plan for Committees and Other BACWA Reps
Review of BACWA Reps' Guidelines

Guidelines were presented in the Handout Packet and briefly reviewed. If positions need formal adoption, BACWA representatives should bring them to the Board. If there is an urgent need for BACWA to submit a comment letter it should be discussed with the BACWA ED.

Item 14. Discussion: League of Women Voters of the Bay Area Water Education Initiative
In the amount of $300. There was some discussion as to whether BACWA would have any input or control over the output. Funding in the amount of $300 was unanimously approved.

Item 15. Discussion: Coastal Hazards Adaptation Resiliency Group
Jim & Mike are already involved in this effort. It was decided that this is not a BACWA issue but rather something that individual agencies should engage in if so desired.

Item 16. Discussion: Bay Delta Conservation Plan
Tim Potter: Central San comment letter – extended to 7/26 or 7/29. . The ED will work with CCCSD to extract portions of their comment letter that would be appropriate for a BACWA comment letter and bring a draft letter back to the Board for review.

Item 17. Discussion: Pesticide Application Permit Modifications and Hearing
After discussion it was decided that a BAPPG representative should testify at the SWRCB hearing.

Suggestions for Future Agenda Items:
None

The meeting adjourned at 12:30 p.m.

The next regular meeting of the Board is scheduled for July 18, 2014 from 9:00 am – 12:30 pm at the EBMUD Treatment Plant, Lab Library, 2020 Wake Avenue, Oakland, CA

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

July 01, 2014

MEMO TO: Bay Area Clean Water Agencies Executive Board
MEMO FROM: D. Scott Klein, Controller, East Bay Municipal Utility District
SUBJECT: Tenth 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, 2013 through April 30, 2014** (ten months of Fiscal Year 2013-2014). 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 04/30/14

DESCRIPTION	BEGINNING FUND BALANCE 07/1/13	TOTAL RECEIPTS	TOTAL DISBURSEMENTS	ENDING FUND BALANCE 4/30/14	OUTSTANDING ENCUMBRANCES	UNOBLIGATED FUND BALANCE 4/30/14
BACWA	669,142	657,110	410,971	915,281	190,985	724,296
TRNG FND	248,247	507	248,754	-	-	-
AIR	12,894	78,508	62,826	28,576	15,514	13,063
BAPPG	51,748	79,719	51,218	80,249	27,725	52,524
LEGAL RSRV	303,928	621	4,549	300,000	-	300,000
WQA CBC	369,481	691,396	332,378	728,500	612,325	116,175
BACWAOPRES	152,925	7,075	-	160,000	-	160,000
RWR	16,733	47	-	16,780	-	16,780
RESERVE	120,000	-	120,000	-	-	-
WOT	48,062	157,733	153,500	52,295	-	52,295
PRP84	59,109	8,062,614	7,959,354	162,369	34,464	127,905
WQA EMERG	405,238	827	406,065	-	-	-
TECHACTION	253,274	517	253,791	-	-	-
CBC OPRSRV	164,121	1,034,768	-	1,198,890	-	1,198,890
PRP50	157,852	14,699	61,715	110,836	19,640	91,196
	3,032,754	10,786,142	10,065,121	3,753,775	900,653	2,853,122

BACWA Revenue Report for April 2014

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	-	-	-	-	494,061	-	494,061	(44,061)
Bay Area Clean Water Agencies	BDO Other Receipts	-	-	-	-	-	-	(9,987)	(9,987)	9,987
Bay Area Clean Water Agencies	BDO Fund Transfers	10,675	-	-	-	-	-	11,163	11,163	(488)
Bay Area Clean Water Agencies	BDO Interest Income	3,000	-	-	800	-	-	2,873	2,873	127
Bay Area Clean Water Agencies	BDO Assoc.&Affiliate Contr	159,000	-	-	-	-	159,000	-	159,000	-
BACWA TOTAL		**622,675**	**-**	**-**	**800**	**-**	**653,061**	**4,049**	**657,110**	**(34,435)**
BACWA Training Fund	BDO Interest Income	-	-	-	-	-	-	507	507	(507)
TRNG FND TOTAL		**-**	**-**	**-**	**-**	**-**	**-**	**507**	**507**	**(507)**
AIR-Air Issues&Regulation Grp	BDO Member Contributions	78,340	-	-	-	-	78,384	-	78,384	(44)
AIR-Air Issues&Regulation Grp	BDO Interest Income	-	-	-	42	-	-	124	124	(124)
AIR TOTAL		**78,340**	**-**	**-**	**42**	**-**	**78,384**	**124**	**78,508**	**(168)**
BAPPG-BayAreaPollutnPreventGrp	BDO Member Contributions	80,000	-	-	-	-	29,505	50,000	79,505	495
BAPPG-BayAreaPollutnPreventGrp	BDO Interest Income	-	-	-	73	-	-	214	214	(214)
BAPPG TOTAL		**80,000**	**-**	**-**	**73**	**-**	**29,505**	**50,214**	**79,719**	**281**
BACWA Legal Reserve Fnd	BDO Interest Income	-	-	-	-	-	-	621	621	(621)
LEGAL RSRV TOTAL		**-**	**-**	**-**	**-**	**-**	**-**	**621**	**621**	**(621)**
WQA-WtrQualityAttainmntStratgy	Administrative & General	-	-	-	-	1,500	-	-	1,500	(1,500)
WQA-WtrQualityAttainmntStratgy	BDO Member Contributions	675,000	-	-	-	-	674,750	-	674,750	250
WQA-WtrQualityAttainmntStratgy	BDO Other Receipts	-	-	-	-	3,232	-	9,987	13,219	(13,219)
WQA-WtrQualityAttainmntStratgy	BDO Interest Income	1,000	-	-	651	-	-	1,927	1,927	(927)
WQA CBC TOTAL		**676,000**	**-**	**-**	**651**	**4,732**	**674,750**	**11,914**	**691,396**	**(15,396)**
BACWA OperatingRsrve Fnd	BDO Fund Transfers	-	-	-	6,763	-	-	6,763	6,763	(6,763)
BACWA OperatingRsrve Fnd	BDO Interest Income	-	-	-	-	-	-	312	312	(312)
BACWAOPRES TOTAL		**-**	**-**	**-**	**6,763**	**-**	**-**	**7,075**	**7,075**	**(7,075)**

BACWA Revenue Report for April 2014

DEPARTMENT	REVENUE TYPE	AMENDED BUDGET	CURRENT PERIOD			YEAR TO DATE				UNOBLIGATED
			DIRECT	INVOICED	JVS	DIRECT	INVOICED	JVS	ACTUAL	
Regional Water Recycling	BDO Interest Income	-	-	-	13	-	-	47	47	(47)
RWR TOTAL		**-**	**-**	**-**	**13**	**-**	**-**	**47**	**47**	**(47)**
WOT - Wtr/Wwtr Operat Training	BDO Member Contributions	160,500	-	10,500	-	-	157,500	-	157,500	3,000
WOT - Wtr/Wwtr Operat Training	BDO Interest Income	-	-	-	70	-	-	233	233	(233)
WOT TOTAL		**160,500**	**-**	**10,500**	**70**	**-**	**157,500**	**233**	**157,733**	**2,767**
Prop84BayAreaIntegRegnlWtrMgmt	BDO Fund Transfers	-	-	-	-	-	-	(488)	(488)	488
Prop84BayAreaIntegRegnlWtrMgmt	BDO Interest Income	-	-	-	133	-	-	2,599	2,599	(2,599)
Prop84BayAreaIntegRegnlWtrMgmt	Administrative Support	-	-	-	-	-	143,122	-	143,122	(143,122)
Prop84BayAreaIntegRegnlWtrMgmt	Water Efficient Landscape Reba	-	-	-	-	-	3,647,671	-	3,647,671	(3,647,671)
Prop84BayAreaIntegRegnlWtrMgmt	Novato North Area Proj.	-	-	-	-	-	31,250	-	31,250	(31,250)
Prop84BayAreaIntegRegnlWtrMgmt	Napa St Hospital Stage 1	-	-	-	-	-	31,250	-	31,250	(31,250)
Prop84BayAreaIntegRegnlWtrMgmt	Harding Park RWP	-	-	-	-	-	2,008,300	-	2,008,300	(2,008,300)
Prop84BayAreaIntegRegnlWtrMgmt	South Bay Salt Pond Habitat Re	-	-	-	-	-	1,201,750	-	1,201,750	(1,201,750)
Prop84BayAreaIntegRegnlWtrMgmt	Regional Green Infrastructure	-	-	-	-	-	156,005	22,928	178,934	(178,934)
Prop84BayAreaIntegRegnlWtrMgmt	WQ Improve Flood Mgmt & EP	-	-	-	-	-	248,077	(57,716)	190,361	(190,361)
Prop84BayAreaIntegRegnlWtrMgmt	Water Efficient LRP	-	-	-	-	-	57,471	-	57,471	(57,471)
Prop84BayAreaIntegRegnlWtrMgmt	Bay Friendly Landscape TP	-	-	-	-	-	39,205	-	39,205	(39,205)
Prop84BayAreaIntegRegnlWtrMgmt	Weather Based Irrigation Cntrl	-	-	-	-	-	15,863	-	15,863	(15,863)
Prop84BayAreaIntegRegnlWtrMgmt	High Efficiency Toilet & UR	-	-	-	-	-	134,148	-	134,148	(134,148)
Prop84BayAreaIntegRegnlWtrMgmt	High Efficiency Toilet & UI	-	-	-	-	-	183,415	-	183,415	(183,415)
Prop84BayAreaIntegRegnlWtrMgmt	Napa Co. Rainwater HP	-	-	-	-	-	7,126	-	7,126	(7,126)
Prop84BayAreaIntegRegnlWtrMgmt	Conservation Program Admin	-	-	-	-	-	20,752	-	20,752	(20,752)
Prop84BayAreaIntegRegnlWtrMgmt	Watershed Partnership TA	-	-	-	-	-	25,235	24,873	50,108	(50,108)
Prop84BayAreaIntegRegnlWtrMgmt	Flood Infrastructure Mapping T	-	-	-	-	-	3,457	-	3,457	(3,457)
Prop84BayAreaIntegRegnlWtrMgmt	Pescadero Integrated FRAH	-	-	-	-	-	41,188	-	41,188	(41,188)
Prop84BayAreaIntegRegnlWtrMgmt	Restoration Guidance, San FC	-	-	-	-	-	11,534	-	11,534	(11,534)
Prop84BayAreaIntegRegnlWtrMgmt	SF Estuary Steelhead MP	-	-	-	-	-	49,405	-	49,405	(49,405)
Prop84BayAreaIntegRegnlWtrMgmt	Watershed Program Admnstrtn	-	-	-	-	-	4,277	9,915	14,192	(14,192)
PRP84 TOTAL		**-**	**-**	**-**	**133**	**-**	**8,060,503**	**2,111**	**8,062,614**	**(8,062,614)**
WQA Emergency Resrve Fnd	BDO Interest Income	-	-	-	-	-	-	827	827	(827)
WQA EMERG TOTAL		**-**	**-**	**-**	**-**	**-**	**-**	**827**	**827**	**(827)**
WQA Tech Action Fund	BDO Interest Income	-	-	-	-	-	-	517	517	(517)
TECHACTION TOTAL		**-**	**-**	**-**	**-**	**-**	**-**	**517**	**517**	**(517)**
CBC Operating Resrve Fnd	BDO Fund Transfers	-	-	-	1,033,159	-	-	1,033,159	1,033,159	(1,033,159)
CBC Operating Resrve Fnd	BDO Interest Income	-	-	-	1,274	-	-	1,610	1,610	(1,610)
CBC OPRSRV TOTAL		**-**	**-**	**-**	**1,034,433**	**-**	**-**	**1,034,768**	**1,034,768**	**(1,034,768)**
Prop50BayAreaIntegRegnlWtrMgmt	BDO Interest Income	-	-	-	113	-	-	442	442	(442)
Prop50BayAreaIntegRegnlWtrMgmt	Administrative Support	-	-	-	-	-	14,257	-	14,257	(14,257)
PRP50 TOTAL		**-**	**-**	**-**	**113**	**-**	**14,257**	**442**	**14,699**	**(14,699)**

BACWA Expense Report for April 2014

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	Reloc HYD 11595 Edgewater OAK	-	-	-	-	-	-	-	7,341	-	7,341	(7,341)
Bay Area Clean Water Agencies	BC-Collections System	26,000	(3,760)	3,760	-	-	3,792	21,208	250	-	25,250	750
Bay Area Clean Water Agencies	BC-Water Recycling Committee	41,552	-	-	-	-	9,910	-	-	-	9,910	31,642
Bay Area Clean Water Agencies	BC-Biosolids Committee	5,000	-	-	-	-	-	-	-	-	-	5,000
Bay Area Clean Water Agencies	BC-InfoShare Groups	25,000	(3,744)	3,744	-	-	16,199	8,801	-	-	25,000	-
Bay Area Clean Water Agencies	BC-Laboratory Committee	5,000	-	-	1,556	-	-	-	2,106	-	2,106	2,894
Bay Area Clean Water Agencies	BC-Miscellaneous Committee Sup	106,368	(20,710)	20,710	-	-	72,354	65,499	-	-	137,853	(31,485)
Bay Area Clean Water Agencies	LS-Regulatory Support	2,000	(550)	1,050	-	-	48	2,452	-	-	2,500	(500)
Bay Area Clean Water Agencies	BDO Fund Transfers	-	-	-	-	6,763	-	-	-	6,763	6,763	(6,763)
Bay Area Clean Water Agencies	LS-Executive Board Support	2,000	-	-	-	-	1,218	782	-	-	2,000	-
Bay Area Clean Water Agencies	CAS-CPSC	5,000	-	-	-	-	-	-	5,000	-	5,000	-
Bay Area Clean Water Agencies	CAS-PSI	500	-	-	500	-	-	-	500	-	500	-
Bay Area Clean Water Agencies	CAR-BACWA Annual Report	5,000	-	-	-	-	-	-	-	-	-	5,000
Bay Area Clean Water Agencies	CAR-BACWA Website Development/	7,820	-	-	76	-	1,500	-	5,711	-	7,211	609
Bay Area Clean Water Agencies	AS-BACWA Admin Expense	3,000	-	-	147	-	-	-	2,420	-	2,420	580
Bay Area Clean Water Agencies	CAR-Other Communications	5,199	-	-	-	-	-	-	73	-	73	5,127
Bay Area Clean Water Agencies	SP-BAPPG Contribution	50,000	-	-	-	-	-	-	-	50,000	50,000	-
Bay Area Clean Water Agencies	GBS-Contingency	31,100	-	-	2,484	-	-	-	2,484	-	2,484	28,616
Bay Area Clean Water Agencies	GBS- Meeting Support	13,000	-	-	(123)	-	351	649	10,708	(100)	11,608	1,392
Bay Area Clean Water Agencies	AS-Executive Director	175,000	-	-	-	-	58,334	116,667	-	-	175,000	-
Bay Area Clean Water Agencies	AS-Assistant Executive Directo	75,000	(13,050)	13,050	-	-	9,975	63,025	-	-	73,000	2,000
Bay Area Clean Water Agencies	AS-EBMUD Administrative Servic	40,000	(11,813)	11,813	-	-	17,305	22,695	3,502	(6,885)	36,617	3,383
Bay Area Clean Water Agencies	AS-Insurance	4,000	-	-	-	-	-	-	4,321	-	4,321	(321)
Bay Area Clean Water Agencies	BDO-CAS-Stanford ERC	10,000	-	-	-	-	-	-	10,000	-	10,000	-
Bay Area Clean Water Agencies	CAS-Arleen Navaret Award	1,000	-	-	-	-	-	-	-	-	-	1,000
Bay Area Clean Water Agencies	CAS-FWQC	5,000	-	-	-	-	-	-	5,000	-	5,000	-
BACWA TOTAL		**643,539**	**(53,627)**	**54,127**	**4,640**	**6,763**	**190,985**	**301,779**	**59,415**	**49,778**	**601,956**	**41,583**
BACWA Training Fund	BDO Fund Transfers	-	-	-	-	248,754	-	-	-	248,754	248,754	(248,754)
BACWA TRAINING TOTAL		**-**	**-**	**-**	**-**	**248,754**	**-**	**-**	**-**	**248,754**	**248,754**	**(248,754)**
AIR-Air Issues&Regulation Grp	Administrative Support	3,900	-	-	-	-	-	-	-	3,900	3,900	-
AIR-Air Issues&Regulation Grp	BDO Contract Expenses	74,440	(21,217)	21,217	-	-	15,514	80,626	-	(21,700)	74,440	-
AIR TOTAL		**78,340**	**(21,217)**	**21,217**	**-**	**-**	**15,514**	**80,626**	**-**	**(17,800)**	**78,340**	**-**
BAPPG-BayAreaPollutnPreventGrp	BAPPG-CE-Fog	17,000	-	-	-	-	-	-	8,000	-	8,000	9,000
BAPPG-BayAreaPollutnPreventGrp	BAPPG-CE-Mercury	2,500	-	-	-	-	-	-	-	-	-	2,500
BAPPG-BayAreaPollutnPreventGrp	BAPPG-CE-Pesticides	10,000	-	-	-	-	-	-	10,000	-	10,000	-
BAPPG-BayAreaPollutnPreventGrp	BAPPG-CE-Pharmaceutical	9,998	-	-	-	-	-	-	-	-	-	9,998
BAPPG-BayAreaPollutnPreventGrp	BAPPG-CE-General P2	1,500	-	-	-	-	-	-	-	-	-	1,500
BAPPG-BayAreaPollutnPreventGrp	BAPPG-CE-Emerging Issues	21,437	16,206	1,793	-	-	18,555	4,443	10,673	-	33,670	(12,233)
BAPPG-BayAreaPollutnPreventGrp	BAPPG-CE-Other	11,500	970	1,030	-	-	5,969	1,030	3,028	(3,028)	6,999	4,501
BAPPG-BayAreaPollutnPreventGrp	Administrative Support	4,275	-	-	-	-	-	-	-	4,275	4,275	-
BAPPG-BayAreaPollutnPreventGrp	BAPPG-CE-Multi-Pollutant	19,000	(2,026)	2,026	-	-	3,202	12,798	-	-	16,000	3,000
BAPPG TOTAL		**97,210**	**15,149**	**4,849**	**-**	**-**	**27,725**	**18,271**	**31,700**	**1,247**	**78,944**	**18,267**

BACWA Expense Report for April 2014

DEPARTMENT	EXPENSE TYPE	AMENDED BUDGET	CURRENT PERIOD				YEAR TO DATE				OBLIGATED	UNOBLIGATED
			ENC	PV	DA	JV	ENC	PV	DA	JV		
BACWA Legal Reserve Fnd	BDO Fund Transfers	-	-	-	-	4,549	-	-	-	4,549	4,549	(4,549)
BACWA LEGAL TOTAL		**-**	**-**	**-**	**-**	**4,549**	**-**	**-**	**-**	**4,549**	**4,549**	**(4,549)**
WQA-WtrQualityAttainmntStratgy	WQA-CE-Technical Support	896,902	(29,538)	29,538	-	-	579,003	300,700	-	-	879,703	17,199
WQA-WtrQualityAttainmntStratgy	WQA-CE-Collaborations & Sponso	30,000	-	-	-	-	-	-	30,000	-	30,000	-
WQA-WtrQualityAttainmntStratgy	WQA-CE-Commun. & Reporting	6,000	-	-	-	-	-	-	-	-	-	6,000
WQA-WtrQualityAttainmntStratgy	WQA-CE-Other	33,800	-	-	-	-	33,322	1,678	-	-	35,000	(1,200)
WQA CBC TOTAL		**966,702**	**(29,538)**	**29,538**	**-**	**-**	**612,325**	**302,378**	**30,000**	**-**	**944,703**	**21,999**
BACWA Reserve	BDO Fund Transfers	-	-	-	-	120,000	-	-	-	120,000	120,000	(120,000)
BACWA RESERVE TOTAL		**-**	**-**	**-**	**-**	**120,000**	**-**	**-**	**-**	**120,000**	**120,000**	**(120,000)**
WOT - Wtr/Wwtr Operat Training	Administrative Support	2,500	-	-	-	-	-	-	-	2,500	2,500	-
WOT - Wtr/Wwtr Operat Training	BDO Contract Expenses	158,000	-	-	-	-	-	-	151,000	-	151,000	7,000
WOT TOTAL		**160,500**	**-**	**-**	**-**	**-**	**-**	**-**	**151,000**	**2,500**	**153,500**	**7,000**
Prop84BayAreaIntegRegnlWtrMgmt	Administrative Support	-	(50)	50	-	-	500	500	3,984	-	4,984	(4,984)
Prop84BayAreaIntegRegnlWtrMgmt	BDO Contract Expenses	-	(2,256)	2,256	-	-	33,964	37,489	-	-	71,453	(71,453)
Prop84BayAreaIntegRegnlWtrMgmt	Novato North Area Proj.	-	-	-	-	-	-	-	31,250	-	31,250	(31,250)
Prop84BayAreaIntegRegnlWtrMgmt	Napa St Hospital Stage 1	-	-	-	-	-	-	-	31,250	-	31,250	(31,250)
Prop84BayAreaIntegRegnlWtrMgmt	Harding Park RWP	-	-	-	-	-	-	-	2,008,300	-	2,008,300	(2,008,300)
Prop84BayAreaIntegRegnlWtrMgmt	South Bay Salt Pond Habitat Re	-	-	-	-	-	-	-	1,201,750	-	1,201,750	(1,201,750)
Prop84BayAreaIntegRegnlWtrMgmt	Regional Green Infrastructure	-	-	-	-	-	-	-	156,005	-	156,005	(156,005)
Prop84BayAreaIntegRegnlWtrMgmt	WQ Improve Flood Mgmt & EP	-	-	-	-	-	-	-	-	(197,743)	(197,743)	197,743
Prop84BayAreaIntegRegnlWtrMgmt	Water Efficient LRP	-	-	-	-	-	-	-	241,291	-	241,291	(241,291)
Prop84BayAreaIntegRegnlWtrMgmt	Bay Friendly Landscape TP	-	-	-	-	-	-	-	56,287	-	56,287	(56,287)
Prop84BayAreaIntegRegnlWtrMgmt	Weather Based Irrigation Cntrl	-	-	-	-	-	-	-	97,094	-	97,094	(97,094)
Prop84BayAreaIntegRegnlWtrMgmt	High Efficiency Toilet & UR	-	-	-	-	-	-	-	997,358	-	997,358	(997,358)
Prop84BayAreaIntegRegnlWtrMgmt	High Efficiency Toilet & UI	-	-	-	-	-	-	-	1,218,500	-	1,218,500	(1,218,500)
Prop84BayAreaIntegRegnlWtrMgmt	High Efficiency Clothes Washrs	-	-	-	-	-	-	-	1,401,879	-	1,401,879	(1,401,879)
Prop84BayAreaIntegRegnlWtrMgmt	Napa Co. Rainwater HP	-	-	-	-	-	-	-	22,127	-	22,127	(22,127)
Prop84BayAreaIntegRegnlWtrMgmt	Conservation Program Admin	-	-	-	-	-	-	-	71,115	-	71,115	(71,115)
Prop84BayAreaIntegRegnlWtrMgmt	Watershed Partnership TA	-	-	-	-	-	-	-	90,386	36,290	126,676	(126,676)
Prop84BayAreaIntegRegnlWtrMgmt	Stream Restoration in North BD	-	-	-	-	-	-	-	30,250	149,491	179,741	(179,741)
Prop84BayAreaIntegRegnlWtrMgmt	Flood Infrastructure Mapping T	-	-	-	-	-	-	-	10,520	2,047	12,568	(12,568)
Prop84BayAreaIntegRegnlWtrMgmt	Stormwater Improvements & PBP	-	-	-	-	-	-	-	30,326	-	30,326	(30,326)
Prop84BayAreaIntegRegnlWtrMgmt	Pescadero Integrated FRAH	-	-	-	-	-	-	-	62,592	-	62,592	(62,592)
Prop84BayAreaIntegRegnlWtrMgmt	Restoration Guidance, San FC	-	-	-	-	-	-	-	11,534	-	11,534	(11,534)
Prop84BayAreaIntegRegnlWtrMgmt	SF Estuary Steelhead MP	-	-	-	-	-	-	-	122,239	-	122,239	(122,239)
Prop84BayAreaIntegRegnlWtrMgmt	Watershed Program Admnstrtn	-	-	-	-	-	-	-	25,326	9,915	35,241	(35,241)
PRP84 TOTAL		**-**	**(2,306)**	**2,306**	**-**	**-**	**34,464**	**37,989**	**7,921,365**	**-**	**7,993,818**	**(7,993,818)**
WQA Emergency Resrve Fnd	BDO Fund Transfers	-	-	-	-	406,065	-	-	-	406,065	406,065	(406,065)
WQA EMERGENCY TOTAL		**-**	**-**	**-**	**-**	**406,065**	**-**	**-**	**-**	**406,065**	**406,065**	**(406,065)**

BACWA Expense Report for April 2014

DEPARTMENT	EXPENSE TYPE	AMENDED BUDGET	CURRENT PERIOD				YEAR TO DATE				OBLIGATED	UNOBLIGATED
			ENC	PV	DA	JV	ENC	PV	DA	JV		
WQA Tech Action Fund	BDO Fund Transfers	-	-	-	-	253,791	-	-	-	253,791	253,791	(253,791)
WQA TECH TOTAL		**-**	**-**	**-**	**-**	**253,791**	**-**	**-**	**-**	**253,791**	**253,791**	**(253,791)**
Prop50BayAreaIntegRegnlWtrMgmt	Administrative Support	-	-	-	-	-	775	225	-	-	1,000	(1,000)
Prop50BayAreaIntegRegnlWtrMgmt	BDO Contract Expenses	-	(1,215)	1,215	-	-	18,865	7,913	-	-	26,778	(26,778)
Prop50BayAreaIntegRegnlWtrMgmt	Regional Conservation	-	-	-	-	-	-	-	48,321	-	48,321	(48,321)
Prop50BayAreaIntegRegnlWtrMgmt	EBMUD Ca. Waterstar Initiative	-	-	-	-	-	-	-	7,322	(7,322)	-	-
Prop50BayAreaIntegRegnlWtrMgmt	EBMUD Richmond RWP	-	-	-	-	-	-	-	8,448	(8,448)	-	-
Prop50BayAreaIntegRegnlWtrMgmt	Redwood City RWP	-	-	-	-	-	-	-	3,285	-	3,285	(3,285)
Prop50BayAreaIntegRegnlWtrMgmt	Mt. View-Moffat RWP	-	-	-	-	-	-	-	5,561	(5,561)	-	-
Prop50BayAreaIntegRegnlWtrMgmt	N. Marin RWP	-	-	-	-	-	-	-	1,971	-	1,971	(1,971)
PRP50 TOTAL		**-**	**(1,215)**	**1,215**	**-**	**-**	**19,640**	**8,138**	**74,909**	**(21,331)**	**81,356**	**(81,356)**

Permits Committee – Report to BACWA Board

Permits Committee Meeting on: 7/8/14
Executive Board Meeting Date: 7/18/14
Committee Chair: Meg Herston

Committee Request for Board Action: None

19 attendees representing 16 BACWA member agencies

Adoption of Permits/Permit Amendments:

July – None for BACWA Members.

August – *Delta Diablo* – Delta Diablo staff are generally happy with their permit, since there has been a substantial reduction in monitoring requirements. They will be allowed to direct a customer's brine stream to the end of their pipe, in the interest of improving recycled water quality.

San Jose – San Jose is generally happy with their tentative order. They are submitting a comment letter on residual chlorine monitoring, protesting their receiving water monitoring requirements on the basis that they won't yield useful data, and asking for a designation of net environmental benefit since all the reasons for the previous finding of equivalent protection are now no longer applicable. The net environmental benefit designation doesn't have any material benefit for San Jose, but it yields a public communication benefit. BACWA will comment that the receiving water requirements are the responsibility of the RMP and asking why the burden is being shifted back to the discharger. The receiving water requirement has been showing up in shallow dischargers' permits. Denise Conners noted that she's seen requirements for additional receiving water monitoring for North Bay dischargers only when there isn't a nearby RMP station.

September – *Sunnyvale* – They were given a 2-day comment period on their Administrative Draft. They were given a new chronic toxicity species, saltwater algae, which dischargers don't have familiarity with, so they will be asking for flexibility in species choice. Their TO retained their previous performance-based limits for ammonia. Their TO also has the same receiving water monitoring requirements as the San Jose TO, in spite of the fact that they have recently completed a 3-year receiving water monitoring study.

Executive Board Report-out

Key issues from the 6/20 Executive Board meeting were:

- The next nutrient Symposium is scheduled for October 6.
- All Bay Area POTWs are now BACWA members.
- There was a discussion of commenting on the San Jose Tentative Order (see above)
- The Board approved a small amount of funding for the League of Women Voters to do an informational article on wastewater/pollution prevention
- There was discussion about the TST lawsuit (see below) against EPA. The Board reaffirmed their decision to not join the lawsuit.
- The Board approved a set of guidelines for representing BACWA with outside organizations. They call for a more robust verification process to ensure that representatives reflect BACWA positions, rather than individual agency positions, as well as reporting back to the Board. Outside meetings attended by BACWA representatives will also be posted on the BACWA calendar.
- Cheryl Munoz gave an update on the Bay Area drought relief application for Proposition 84 funds. Four recycled water projects worth $13M were included in the Regional Application. They were:
  - Napa SD ($4M)
  - SCVWD/Sunnyvale ($4M)
  - DERWA (Dublin San Ramon/EBMUD) ($4M)
  - Calistoga $750

Nutrients

- *Optimization/Upgrade Studies* – BACWA received four proposals and will let teams know this week which of them have been shortlisted for interviews. Dave Williams reminded the group they won't have to hire a consultant to do their Optimization/Upgrade studies, since this effort will be covered by BACWA through the Nutrient Surcharge.
- *Nutrient Symposium* – The next symposium on Case Studies, planned for October 6, will feature speakers who will discuss nutrient management experiences from five watersheds throughout the country.
- *Statewide Nutrient SAG* – Dave Williams attended a SAG meeting on 6/13. This process is parallel to the San Francisco Bay process. Moving forward, Tom Grouvhog and Adam Link will be the POTW representatives. The State Water Board is considering a 20 ug/L chlorophyll a objective, but how it will be implemented is yet to be determined.
- *Steering Committee* – The second meeting was held on 6/25, and the next meeting is scheduled for September. The focus of the meeting was prioritizing the 15 projects that Dave Senn identified. The projects total $935K, but BACWA will enter into a contract for the available $880K (less $15K to fund Dave Ceppos, the facilitator). There was a discussion that it doesn't make sense for Tom Mumley to chair the Steering Committee, since its purpose is to advise the Regional Water Board on decision making for nutrients. The group also formed a pre-executive committee, made up of BACWA, the Water Board, the Science Manager and Baykeeper.
- *Letter from Robert Schlipf on collection of reactive phosphorus samples* – Robert distributed a letter to allow grab sample collection for reactive phosphorus samples during average plant flow. This raised several logistical issues that the Laboratory will work with Lila and Robert to clarify.
- *Pilot testing of sidestream ammonia treatment at USD* – Tim Grillo reported that they have been running a successful Kruger ANITA Mox sidestream nitrogen removal process. They have been loading the system with 980 g/m3/d nitrogen, and seeing 80% removal of ammonia, and 70% removal of total inorganic nitrogen.

Bacterial Objectives

- The State Water Board is holding an invitation-only focus group meeting on Bacterial Objectives on July 14. Amy Chastain (SFPUC) and Lorien Fono (BACWA RMP) will attend as BACWA representatives. The State Water Board distributed an Issue Paper, in response to which the committee went over BACWA positions on the eleven elements. A copy of the BACWA positions will be distributed to the Executive Board prior to the July 14th meeting, and included in the Executive Board meeting packet.

Toxicity

- SCAP and CVCWA have filed a lawsuit against the EPA alleging improper procedure when pushing the TST into California permits. The Santa Maria watershed toxicity and pesticides TMDL was adopted on July 2, with a clarification that the TST is recommended, but not required. A previous draft of the TMDL had specified that the TST be used.
- SFPUC has been having problems with toxicity due to ammonia, which they have demonstrated by stripping the ammonia and adding it back in. Amy Chastain will distribute the letter from SFPUC to the Regional Water Board to give the committee more detail about the issue.
- The committee is interested in having an up-to-date list of the species everyone is using for chronic toxicity. Lorien will look to see what her existing list looks like and what needs updating.

Informational Items/Announcements

- *CECs Monitoring* – The RMP continues to solicit participation for CEC studies.
- *Vector Control* – Lorien Fono testified at the Vector Control meeting at the State Water Board on July 2, protesting the removal of monitoring requirements at the same time as the list of pesticides increased. The Board adopted the permit but directed staff to meet with BACWA representatives to consider our issues. Melody LaBella will represent BACWA on this issue moving forward.
- *Statewide Mercury Program* – Tim Potter will attend the invitation-only meeting that will be held July 14 (link to summary document)
- *BACWA is seeking feedback on updates to its website* – BACWA is hiring a new IT consultant and will use this opportunity to improve the website. If you have any suggestions or requests, contact Dave Williams or Lorien Fono.
- *CIWQS has become CROMERR certified* – Per the federal register, CIWQS now complies with EPA requirements for electronic reporting. When the EPA electronic reporting rule comes into effect, the transition should be seamless.

Next BACWA Permits Committee Meeting: Tuesday, August 12, 2014, at EBMUD Plant Library

Recycled Water Committee – Report to BACWA Board

Recycled Water Committee Meeting on: 6/4/14
Executive Board Meeting Date: 6/20/14
Committee Chair: Cheryl Muñoz

Committee Request for Board Action: None.

11 attendees (incl. 7 on phone) representing 8 BACWA member agencies.
Detailed notes from meetings are posted online.

BAIRWMP Updates

Addition of projects to the 2013 BAIRWMP – Not all the projects that will be in the Regional Grant Application (see below) are in the Plan yet, which is a requirement. They will be included in an addendum, and will need to be approved by the Coordinating Committee (CC) for inclusion in the Plan. This item will be on the CC's June 23, 2014 meeting agenda.

Individual agency adoption of the IRWMP is required to receive grant funds in Rounds 2 and 3. Agencies receiving Round 2 funds must adopt the Plan before final Local Project Sponsor agreements are executed with ABAG/SFEP. The Plan must be adopted by prospective Local Project Sponsor's 45 days after the applications are due for Round 3.

2014 Prop 84 Drought Regional Application

At the last CC Meeting, the Project Screening Committee (PSC) presented draft funding recommendations for a Regional Grant Application totaling $32M, and the CC approved the recommendations. The project types that were screened were Water Supply Enhancement, Recycled Water, Human Right to Water, and Drought Preparedness. Human Right to Water projects are for agencies with severe water shortages. The PSC reviewed 54 projects totaling more than $420M, using scoring factors. There were 11 projects recommended for the final application, including four water recycling projects that total about $13M collectively. The agencies whose recycled water projects will be included in the application are:

(a) Napa SD ($4M)
(b) SCVWD/Sunnyvale ($4M)
(c) DERWA (Dublin San Ramon/EBMUD) ($4M)
(d) Calistoga $750 (also included in Human Right to Water – they may run out of water next year)

Three of the four were combined projects, which helped them score better in the screening process. Grant applications are due July 21, 2014 – the DWR added a few weeks to original July 3, 2014 date. Final awards are scheduled to be announced in October 2014.

The Prop 84 Round 3 Implementation Grant process is anticipated to begin in Spring 2015. No date yet or information about whether it will be integrated or drought-specific. The retroactive date for the next round of funding may be January 2015, so unfunded agencies that go ahead and build their projects in the absence of grant funds should keep track of costs which may be reimbursable if they get funded in the next round. Even if the next round of funding does not have a drought focus, Regional recycled water projects can be included in the BACWA nutrients proposal.

Recycled Water General Permit

BACWA provided a comment letter, stating that Region 2 entities would like to continue to use 96-011 for new and existing permits. The hearing was June 3. The State Water Board posted an updated draft including responses to comments on May 30. Finding 29, under Purpose and Applicability, pg. 13, was added in in response to BACWA's and WateReuse's comments:

Producers, Distributors, or Users of recycled water covered under existing orders (water recycling requirements, master reclamation permits, general or individual waste discharge requirements, or waivers of waste discharge requirements) for the use of recycled water may elect to either continue coverage under existing orders or apply for coverage under this General Order.

Next BACWA Recycled Water Committee Meeting: July 2, 2014 from 10:00 am to 12:00 pm, 2nd Floor Small Training Room at EBMUD Headquarters

Executive Director's Report to the Board

July 2014

NUTRIENTS:

Completed a variety of tasks and activities associated with BACWA's interests on nutrients and collaborating with the Water Board including:
-Coordinated with the facilitator and the WB staff to prepare for the 2nd Governance Steering Committee meeting held on June 25th
- Attended the 2nd Steering Committee meeting and served as scribe. Following the meeting prepared detailed meeting minutes, summary of action items, decisions made, parking lot issues and voting for funding projects. Materials delivered to the Steering Committee Facilitator.
-Lead on-going discussions with the CMG for the Optimization/Upgrade studies. Established a rating sheet for evaluating the proposals received in response to the RFP and shortlisted 3 firms for interviews in August.
-Participated in conference calls with the Carollo for planning the Nutrient Watershed Case Studies Symposium. Also discussed the Symposium with Paul Freedman who agreed to be the MC for the event.
-Attended the meeting of the NACWA Water Quality Trading Group which is seeking to promote and share efforts across the country on trading activities and permitting.
-Continued coordination on the in-kind support committed by BACWA for the EBMUD EPA grant for nutrient research
-Met with the RWQCB Nutrient Program Manager to discuss recent and upcoming regulatory, governance and technical activities associated with the implementation of the Nutrient Management Strategy.

BACWA BOARD MEETING:

-Worked with the AED in preparing for the July BACWA Board agenda including reviewing the agenda with the chair.
-Prepared the Action Items for the June meeting
-Attended the BACWA June Board meeting and worked with the AED in preparing the minutes.
-Discussed the ED Performance Evaluation with the Chair and Vice Chair
-Continuing to track all action items to completion.

ASC/SFEI:

-Attended the quarterly ASC/SFEI Board meeting and participated in the interviews for the new Executive Director.

FINANCE:

-Met with the AED and RPM to discuss end of year close out and other upcoming activities that need to be undertaken.
-Coordinated with the EBMUD internal auditor on the audit of the BACWA JPA. Worked with the BACWA attorney to address questions which arose during the audit regarding compliance with the JPA.

PERMITS COMMITTEE:

-Attended the monthly Permit Committee meetings. Provided update on all BACWA nutrient related activities, and discussed the Statewide bacterial objectives, toxicity issues, the Vector Control permit, and the Statewide Mercury Program
-Worked with the RPM in developing testimony at the SWRCB hearing on the Vector Control Permit
-Worked with the RPM in preparing a comment letter on the San Jose Tentative Order.

RECYCLED WATER COMMITTEE:

-Coordinated with the chair regarding the request for additional consultant assistance on Recycled Water Committee Activities.

COLLABORATION:

-Coordinated with the CASA ED on topics on mutual interest (i.e. State Nutrient objectives, toxicity and potential litigation, and utility leadership committee).
-Participated in the monthly CASA Board conference call.
-Chaired the CASA Utility Leadership Committee conference call for June.

ADMINISTRATION:

-Engaged in frequent discussions with the new AED to help bring her up to speed as quickly as possible.
-Interviewed two firms to provide IT and web site design assistance for BACWA following the loss of the Linde Group as BACWA's IT service provider.
-Signed off on invoices, reviewed correspondence, prepared for upcoming Board meeting, responded to inquiries on BACWA efforts, oversaw updating of web page and provided general direction to BACWA staff.
-Worked with the RPM in the preparation of the monthly BACWA bulletin.
-Met with the new AED to coordinate activities and review duties, schedules, and priorities.
-Resolved contracting issues associated with the "bridge contract" with CCP for Steering Committee facilitation services.

MISCELLANEOUS MEETINGS/CALLS:

-Paul Gilbert Snyder on Prop 50 and Prop 84
-BACWA chair and Committee chairs on items that arose during the month
-Water Board staff on coordinating the nutrient activities
-Jim Kelly as the Interim Executive Director of SFEI
-other misc calls and inquiries regarding BACWA activities

June 20, 2014 BACWA Board Meeting
Action Items

Number	*Subject (Lead)*	*Task*	*Deadline*	*Status*
2014.06-112	WS Case Studies Symposium (ED)	Send out a "Save the Date" notice, and schedule next meeting of planning group	7/10/2014	completed
2014.06-113	Joint meeting with Air District (ED, Air Comm. Chair)	Set up meeting with senior staff at BAAQMD	12/31/2014	pending
2014.06-114	Assistance on data needs regarding pesticide application regulations (ED, Karin N.)	Execute a chair authorization for Kelly Moran	7/18/2014	completed
2014.06-115	Need for workshop on optimization (ED)	Discuss possibilities with CWEA ED	7/18/2014	completed
2014.06-116	Reduction in monitoring (RPM)	Prepare comment letter on San Jose's TO	7/14/2014	completed
2014.06-117	Toxicity test species and ammonia removal (RPM)	Add this issue to next Permit Committee meeting agenda	7/8/2014	completed
2014.06-118	EBMUD EPA grant (ED)	Provide and update to the Board in the Fall	12/31/2014	Completed, on BodCal
2014.06-119	Providing agendas (Other Representatives, AED)	Notify all of BACWA's Other Representatives of the need to provide agendas of their upcoming meetings for posting on the BACWA web site	7/18/2014	completed
2014.06-120	Newsletter series by League of Women Voters (ED)	Identify BACWA contact for interviews and check to see if we can review articles prior to publishing	7/18/2014	completed
2014.06-121	BDCP (RPM)	Prepare draft BACWA comment letter.	7/18/2014	completed
2014.06-122	Pardee Technical Seminar (ED)	Prepare a draft agenda for the October meeting.	7/18/2014	completed
2014.06-123	Recycling brine (RPM)	Recycled Water Committee to create a list of who has brine	7/18/2014	On next Recycled Water Committee agenda

Action Items Remaining from Previous BACWA Executive Board Meetings

Number	***Subject (Lead)***	***Task***	***Deadline***	***Status***
2014.03-79	Baywise Website (BAPPG Chair)	Edit baywise.org to indicate that BACWA and BASMAA are sponsors.	7/1/2014	Pending
2014.05-102	NACWA Inquiry Regarding Collaboration with Agriculture (ED)	Forward request to Napa and Sonoma agencies and respond to NACWA.		
2014.05-105	Annual Report (ED)	Produce scaled-down version.		

FY14: 117 of 122 Action Items completed.
FY13: 67 of 67 Action Items completed.

Board Calendar thru December 2014

As of Tuesday, July 15, 2014 at 12:58 PM

DATE	ASSIGNMENT	STATUS NOTES
7/?/2014 Joint Meeting **Items due: ?** Connor; Pagano; Horenstein; Ervin; Bailey Water Board Staff Williams; Fono	**Other Business: Discussions**	
7/18/2014 Monthly Board Mtg **Items due: 7/11** Connor; Pagano; Horenstein; Ervin; Swanson Williams; Fono;	**Consent** Previous Board Meeting Minutes (AED) Monthly Treasurer's Report (EBMUD Accounting) **Reports** Committee Reports (Committee Chairs) Board Reports (Executive Board) ED Report (ED) RPM Report (RPM) Chair/ED Authorizations (AED)	*5m* *40m*
	Other Business: Authorizations BACWA Amended Budget FY15 Additional scope of work for WBA	
	Other Business: Discussions Board and Committee Meeting Calendar for Jan-Dec 2015 (AED) ReNUWIt Update (C. Nilsen) Circulate Guidelines to all BACWA Representatives (AED) Presentation, David Senn, LSB synthesis CARB and BACWA relations IT/Web Upgrade	
8/?/2014 BAAQMD Joint Meeting **Items due: ?** Connor; Pagano; Horenstein; Ervin; Bailey BAAQMD Executive Officer and Staff Williams; Fono	**Other Business: Discussions**	
8/15/2014 Monthly Board Mtg **Items due: 8/8** Connor; Pagano; Horenstein; Ervin; Bailey Williams; Fono; Hull	**Consent** Previous Board Meeting Minutes (AED) Monthly Treasurer's Report (EBMUD Accounting) **Reports** Committee Reports (Committee Chairs) Board Reports (Executive Board) ED Report (ED) RPM Report (RPM) Chair/ED Authorizations (AED)	*5m* *40m*

DATE	ASSIGNMENT	STATUS NOTES
	Other Business: Authorizations Chair Auth. For Tech Support from Kelly Moran	
	Other Business: Discussions Pardee Technical Seminar Planning (ED/AED) SFEI/RMP (Phil Trowbridge) Biannual Update from CWCCG (S. Deslauriers) IT/Web Upgrade Discussion: CASA Statewide Pesticide Steering Committee	
9/?/2014 Joint Meeting **Items due: ?** Connor; Pagano; Horenstein; Ervin; Bailey Water Board Staff Williams; Fono	**Other Business: Discussions**	
9/19/2014 Monthly Board Mtg **Items due: 9/12** Connor; Pagano; Horenstein; Ervin; Swanson Williams; Fono; Hull	**Consent** Previous Board Meeting Minutes (AED) Monthly Treasurer's Report (EBMUD Accounting) **Reports** Committee Reports (Committee Chairs) Board Reports (Executive Board) ED Report (ED) RPM Report (RPM) Chair/ED Authorizations (AED)	*5m* *40m*
	Other Business: Authorizations	
	Other Business: Discussions Pardee Technical Seminar (ED/AED) Quarterly Update from CWCCG (S. Deslauriers) Regulatory Issue Matrix, Updated (RPM) Annual Member Meeting Planning (ED) Optimization/Upgrade Studies Quarterly Update (CMG)	
10/21 – 10/23 Pardee Technical Seminar **Items due: 10/15** Connor; Pagano; Horenstein; Ervin; Bailey Williams; Fono; Gunnell	**Other Business: Discussions** AIR Committee Restructuring	*No Board Actions Permitted*
11/?/2014 Joint Meeting **Items due: ?** Connor; Pagano; Horenstein; Ervin; Swanson Water Board Staff Williams; Fono	**Other Business: Discussions**	
11/21/2014 Monthly Board Mtg **Items due: 11/14**	**Consent** Previous Board Meeting Minutes (AED) Monthly Treasurer's Report (EBMUD Accounting) Annual Audit Report (EBMUD Accounting) **Reports**	*10m* *plus previous month (Aug2013)* *40m*

DATE	ASSIGNMENT	STATUS NOTES
Connor; Pagano; Horenstein; Ervin; Bailey Williams; Fono; Hull	Committee Reports (Committee Chairs) Board Reports (Executive Board) ED Report (ED) RPM Report (RPM) Chair/ED Authorizations (AED)	
	Other Business: Authorizations	
	Other Business: Discussions ReNUWIt Update (B. Horenstein/ M. Connor) Annual Member Meeting Planning (ED) Provide the Board an update on the EBMUD EPA Grant for Sidestream Treatment in the Fall	
12/19/2014 Monthly Board Mtg **Items due: 12/12** Connor; Pagano; Horenstein; Ervin; Bailey Williams; Fono; Hull	**Consent** Previous Board Meeting Minutes (AED) Monthly Treasurer's Report (EBMUD Accounting) **Reports** Committee Reports (Committee Chairs) Board Reports (Executive Board) ED Report (ED) RPM Report (RPM) Chair/ED Authorizations (AED)	*5m* *40m*
	Other Business: Authorizations	
	Other Business: Discussions Quarterly Update from CWCCG (S. Deslauriers) Annual Member Meeting Planning (ED) FY2016 Budget Planning - Info Share Groups: consider bidding contract; update on participation and regular updates to e-mail list in FY15 (M. Barnes) Optimization/Upgrade Studies Quarterly Update (CMG)	

CURRENTLY UNSCHEDULED AND SIGNIFICANT

- Approval of Annual Report FY12 & FY13
- Defining BACWA Priorities/Revisit Strategic Plan
- BACWA Membership Engagement Opportunities
- Tech Seminar/Workshop: CCCSD Cogen explosion, SFPUC force main leak and repair, and BACWA member pilot plants.
- Chlorine Residual Analyzer Investigation
- Suggestions for Monthly Meeting Guest Speakers/Presenters: ie. Jim McGrath, State Water Board; ?
- CEC's (Kelly Moran)
- Strategy Development for Triennial Review (Permits Committee/Board)
- Optimization/Upgrade Studies Quarterly Report to Board(CMG) Mar, Jun, Sept, Dec 2015-2017
- Optimization/Upgrade Studies Biannual Report to Members (CMG/Consultant) Oct, April
- BAAQMD Biannual Joint Meetings (Feb, Aug 2015)

BOARD COMMITTEES WITH NO MEETINGS CURRENTLY SCHEDULED

-

Regulatory Program Manager's Report to the Board

June 20 2014 – July 11 2014
Prepared for the July 18, 2014 Executive Board Meeting

NUTRIENT WATERSHED PERMIT SUPPORT: Arranged for receipt and distribution of electronic copies of proposals for Nutrient Optimization/Facility Upgrade Support Project to CMG. Updated schedule and rating sheet for proposal team selection. Set up CMG conference call to shortlist proposals for interviews. Drafted text for interview letters to proposal teams.

SFEI CONTRACT OVERSIGHT: Reviewed invoices from SFEI, and updated the schedule of deliverables. Supported the administration of closing out the FY13 contract and reallocation of FY14 funds between the two contracts. For the FY14 contract, $309K of the $675K has been spent through May 2014 (see attached spreadsheet). Compared proposed FY15 scope of work level of detail that of with previous contracts.

VECTOR CONTROL GENERAL ORDER: Testified at the hearing to adopt the State Water Board's amended General Order for Vector Control (testimony is attached) on July 2. The State Water Board adopted the General Order, but instructed staff to meet with BACWA to better understand and address our concerns. Melody LaBella will be the BACWA representative on this effort moving forward.

CASA REGULATORY WORKGROUP (FORMERLY TRI-TAC): *Toxicity* – SCAP and CVCWA are suing EPA over procedural mishandling in allowing the two-concentration TST test as an alternative test procedure to the five-concentration test. In their opposing brief, EPA clarified that Water Boards would have discretion in allowing either form of the test.
Fees – NPDES fees will not rise in 2015.
Stormwater Strategy Initiative – State Water Board is seeking stakeholder input into a new stormwater strategy. Lisa Haney at OCSD is organizing the POTW response. More information is here:
http://www.waterboards.ca.gov/water_issues/programs/stormwater/strategy_initiative.shtml.

BACTERIAL OBJECTIVES: Worked with Amy Chastain to develop BACWA positions on the eleven elements in the State Water Board's Issue Paper. Refined the positions based on input from the Permits Committee. The Issue Paper and BACWA's position summary are included in this Handout Packet.

BACWA BULLETIN: Drafted and distributed July BACWA Bulletin.

MEMBER TENTATIVE ORDERS: Drafted a comment letter on San Jose's TO requesting a rationale for the new receiving water monitoring requirements in light of the success of the RMP's receiving water monitoring program.

ADMINISTRATION: Met with two potential IT support providers. Drafted a list of BACWA's IT

needs and included committee responses to questions about how BACWA can improve its website.

COMMITTEE SUPPORT: Drafted agenda and Board Report for Permits Committee meeting. Met with Tim Potter and Meg Herston to discuss committee chair transition.

MEETINGS ATTENDED: Meetings with potential IT providers (6/26 and 6/27), Vector Control General Order State Water Board meeting (7/2), BACWA CMG telecon for shortlisting proposals (7/7), Permits Committee (7/8) CASA Regulatory Workgroup conference call (7/10).

MATERNITY LEAVE: Last day of work will be September 24. Return will be January 2015. Attached spreadsheet shows how routine RPM tasks will be managed by other PME staff during Fall 2014. Patricia McGovern will attend August Executive Board meeting to answer any questions.

BACWA Testimony on Vector Control Permit – July 2, 2014

Lorien Fono, BACWA RPM

The Bay Area Clean Water Agencies (BACWA) appreciates the opportunity to comment on the State Water Board's proposed amendments to the Vector Control Permit. BACWA understands that vector control, like wastewater treatment, is an invaluable public health service. In providing these respective public services, each jurisdiction should be aware of and understand the regulatory and public health realms of the other. BACWA submitted a detailed comment letter, and appreciates State Water Board's staff attention to our comments. However, we would like to raise an important issue from our letter that we feel hasn't been adequately addressed – Receiving water monitoring.

Permit's Effectiveness is Negated without Water Quality Monitoring

Prior to March 12, 2014, the Monitoring and Reporting Program included water quality sampling within 24 hours of an application event followed by a second sampling event within one week of project completion. However, the Monitoring and Reporting Program in Attachment C was updated less than 4 months ago by staff (2014-0038-EXEC) to eliminate all pesticide chemical monitoring of the receiving water. This action ensures that the permit's triggers will never be exceeded because monitoring pesticide concentrations in the water body is not required. If there is no data, how will it be determined that the triggers have been exceeded?

In the response to comments, State water Board staff state that, "*State Water Board staff will review all pesticides newly registered with DPR for the purpose of vector control. If the product contains constituents that can potentially cause water quality impacts, staff will recommend monitoring for constituents of concern. The Deputy Director could issue a letter under California Water Code section 13383 requiring vector control agencies to conduct monitoring for the constituents of concern. If discharger monitoring is required, the triggers will be used to determine if surface water quality impact is occurring.*" However, there is no mechanism described for how State Water Board staff will identify constituents of concern, and the issuance of a 13383 letter seems like an unreasonable and unnecessary barrier to what should be routine monitoring to ensure protection of our water bodies against toxicity.

The pairing of the recently staff-adopted permit amendment that eliminated all chemical and toxicity monitoring requirements with these follow-up proposed amendments result in sweeping and significant changes to a statewide general permit that appear to limit the permit's effectiveness in protecting water quality.

In their response to comment, State Water Board staff state that, "*The State Water Board and the Mosquito and Vector Control Association of California funded a monitoring study in 2011*

and 2012 to determine the impacts of vector control applications on surface water quality. Based on this study, the State Water Board's Deputy Director of Water Quality determined that vector control applications do not significantly affect surface water quality or impact beneficial uses." This is a sweeping conclusion that is used to justify a considerable weakening of water quality protections. However, this study was not provided as part of the documentation associated with this permit, nor even cited, so stakeholders cannot review it. We have gathered indirectly that the monitoring study was conducted by U.C. Davis and documented in a just-published paper by Phillips and colleagues. BACWA submitted a copy of this scientific paper with its comments. BACWA respectfully disagrees with the staff interpretation of this study. The study found that some mosquito control applications caused aquatic toxicity and that the toxicity was linked to a degradate of one of the already approved pesticides - Naled. The paper also documents exceedances of the monitoring triggers listed in the permit for several other pesticides.

BACWA members, and other wastewater dischargers throughout the state, convey wastewater containing some pollutants which are subject to strict effluent limitations and stringent Monitoring and Reporting Programs. The State Board is developing a Toxicity Plan to regulate wastewater discharges statewide. Based on past versions of the proposed Toxicity Plan, stringent standards are being proposed for wastewater dischargers that are incongruous with the changes to the proposed amendments to the Vector Control Permit. Vector control providers apply full strength pesticides directly to water bodies and yet the permit to regulate their water quality impacts excludes water quality monitoring and instead relies on numeric triggers in the receiving water that will never be demonstrated since there's no required monitoring. The amendment to authorize a broader list of pesticide alternatives is being proposed without a commensurate level of regulation to monitor and manage the impacts from these pesticide applications. Water quality protection is a public health and environmental issue and amendments to the Vector Control Permit need to strike an appropriate balance.

BACWA's Request

BACWA requests that the State Board modify the permit to require receiving water monitoring. Based on available scientific data, at a minimum, receiving water monitoring should be required for:

—the newly added pesticides

—dichlorvos, the naled breakdown product linked to toxicity in the State Water Board study

—malathion, permethrin, etofenprox and any other pesticides where the State Water Board study found monitoring trigger exceedances

SF Bay Nutrient Strategy FY2014 Status (Contract with SFEI)

Updated 6/27/2014

Total Spent of $675,000 **$308,732.00**

Task	**Description**	Upcoming Deliverable	Original Date	Updates
11	Lower South Bay Synthesis	Draft Report	December 2013	Expected in July 2014
4 (FY13)	Suisun Synthesis I	Final Report	December 2013	Delivered March 2014
12	Suisun Synthesis II	Draft Report	April 2014	Expected in November 2014
13	Nutrient Science Plan	Draft Plan	February 2014	Expected in July 2014
22	Moored Sensor Program	Draft Summary	April 2014	Progress Report expected in June 2014
23	Characterizing Phytoplankton Community Composition	Draft Report	April 2014	Draft findings in July 2014
24	Nutrient Monitoring Program Development	Draft Plan	March 2014	TAG will begin meeting in Q2 2014, Development plan due in June 2014
3 (FY13)	Conceptual Model of Nutrient Exchange through Golden Gate	Draft Report	July 2013	Delivered February 2014

Coverage of Regulatory Program Manager Duties Fall 2014

	Committee Support									
	Permits	**AIR**	**Recycled Water**	**Exec Board Reports and Meeting**	**BACWA Bulletin [1]**	**SFEI Contract Review**	**CMG Support [2]**	**IRWMP Support (likely dormant until 2015)**	**Risk Reduction Liaison**	**Other Regulatory Support [3]**
September	Lorien	Lorien & Kim	Lorien & Kim	Lorien	Lorien	Lorien	Lorien	Lorien	Lorien	Lorien
October	None	No Meeting	Kim	Pardee (none)	Kim	Kim	Kim or Tricia	Kim	Dave	Tricia/Permits Committee
November	Tricia	Kim	Kim	Tricia	Kim	Kim	Kim or Tricia	Kim	Dave	Tricia/Permits Committee
December	Tricia	No meeting	Kim	Tricia	Kim	Kim	Kim or Tricia	Kim	Dave	Tricia/Permits Committee
January	Lorien returns									

Notes

(1) BACWA Bulletin - Kim West will request material from committee chairs and take direction from Tricia, Mike C and/or Dave.

(2) CMG support - If Carollo is selected as the consultant, then Tricia McGovern will have a conflict of interest.

(3) Other Regulatory Support - If a new toxicity policy draft is released during this time, or other issue comes up, Permits Committee Chair can decide how to address.

Sherry Hull

From: Miller, Rod <RMiller@sfwater.org>
Sent: Tuesday, July 15, 2014 3:25 PM
To: Sherry Hull
Subject: RE: Agenda for July 18, 2014 BACWA Executive Board Meeting has been posted

Sherry,

I've been somewhat remiss in responding to your request for committee representative updates for the July 18 Board meeting. The Regional Monitoring Program Technical Review Committee (RMP TRC) convened the most recent quarterly meeting on June 17, 2014 at SFEI. The predominant focus of the meeting was to prioritize 17 proposed 2015 special studies in order to best allocate limited funding resources and provide recommendations to the Steering Committee on which studies to fund. The total funding request for the 17 studies was $1.345M, with available funding identified as $1.118M. Through much discussion the group agreed that the studies proposed for Small Tributary Loading Strategy (STLS) (4 studies totaling $511K) and Nutrient Proposals (5 studies totaling $500K) should be funded. However, so as to not completely gut some of the other proposed studies of funding, a marginal decrease in both the STLS and Nutrient studies was agreed to in order free up some additional funding. The recommended middle ground was to reduce PCBs (PCB: PMU conceptual models - $100K) by $10-20K (let's call it $15K), reduce STL and Nutrients by $30K each, use $90K from unencumbered funds (the $90K freed up from the mesohaline study) in order to fund CEC in Effluent, selenium studies (3), and possibly one or two more studies (I never received the final recommendation package submitted to the Steering Committee). Mike Connor was at the meeting also so he can probably add some more detail to my comments.

Let me know if you have any questions or if you require additional information.

Rod

Rod T. Miller
Laboratory Director
Water Quality Division
1000 El Camino Real
Millbrae, CA 94030
Tel. (650) 871-3030
Fax (650) 952-3407
rmiller@sfwater.org

San Francisco Water Power Sewer
Services of the San Francisco Public Utilities Commission

"when you drink water, think of its source"

From: Sherry Hull [mailto:shull@bacwa.org]
Sent: Tuesday, July 15, 2014 10:03 AM

SFEI | AQUATIC SCIENCE CENTER

Joint Meeting of the Boards
Aquatic Science Center and San Francisco Estuary Institute

To Be Held
Friday July 11, 2014
Time: 8:30 am – 3:00 pm

San Francisco Estuary Institute
4911 Central Avenue Richmond, CA 94804
Large Conference Room

DRAFT AGENDA

Joint Business

1.	**Call to Order** **SFEI Roll Call and Determination of Quorum** **ASC Roll Call and Determination of Quorum** **Review and Approval of Agenda – ASC Board** **Review and Approval of Agenda – SFEI Board**	8:30 am Jim Fiedler
2.	**Action: Consent Items** *Attachment 1 – February 28, 2014 Meeting Minutes and Action Items – page 4* *Attachment 2 – Quarterly Newsletter –* ***will be provided at a later date*** *Attachment 3 – Delegation of Authority – page 10* **Desired Outcome:** Approval of Consent Items - Vote by ASC Board - Vote by SFEI Board	8:35 am Jim Fiedler
3.	**Selection of Board Members** *Attachment 4-Postion paper regarding selection of Board Members – page 16* **Desired Outcome:** Selection of Board Members - Vote by ASC Board - Vote by SFEI Board	8:40 am Jim Fiedler
4.	**ASC Annual Meeting/Election of Officers/ set meeting dates for upcoming year** *Attachment 5 – Position Paper on requirements of Annual meeting for ASC – page 17* **Desired Outcome:** Hold ASC Annual Meeting, elect officers (for both ASC and SFEI), and direct staff to schedule future Board Meetings - Vote by ASC Board - Vote by SFEI Board	8:45 am Jim Fiedler
5.	**Executive Committee Report** *Attachment 6 – Executive Committee Minutes, April 8, 2014 – page 18* *Attachment 7 – Executive Committee Minutes, April 24, 2014 – page 22* *Attachment 8 – Executive Committee Minutes, May 20. 2014 – page 25* *Attachment 9 – Executive Committee/Audit Committee Minutes, June 12, 2014 – page 28*	8:50 am Jim Fiedler/Chair

	Desired outcome: Ratify Executive Committee Actions - Vote by ASC Board - Vote by SFEI Board	
6.	**Accept Audits/approve Engagement Letters** *Attachment 10 – Position Paper on Audits and Engagement Letters – page 31* **Desired Outcome:** Accept Audits and approve Engagement Letters - Vote by ASC Board - Vote by SFEI Board	8:55 am Jim Kelly
7.	**Adjourn Joint Business Meeting and Call ASC Meeting to Order**	9:00 am

Aquatic Science Center Business Meeting

ASC 1.	**Action: Operations and Program Plan Quarterly Update** *Attachment 11 – 2014 Program Plan Quarterly Update – page 47* **Desired Outcome:** Approve Program Plan Quarterly Update - Vote by ASC Board	9:00 am Jim Kelly
ASC 2.	**Adjourn ASC Meeting and call SFEI Meeting to Order**	9:05 am

San Francisco Estuary Institute Business Meeting

SFEI 1.	**Adopt Conflict of Interest Policy** *Attachment 12 – Position Paper on Conflict of Interest – page 51* **Desired Outcome:** Adopt a Conflict of Interest Policy -Vote by SFEI Board	9:15 am
SFEI 2.	**Change SFEI Fiscal Year from Calendar Year to July 1 – June 30 Fiscal Year** *Attachment 13 – Position paper to Change Fiscal Year – page 54* **Desired Outcome:** Approve change in Fiscal Year starting July 1, 2014 -Vote by SFEI Board	9:20 am Jim Kelly
SFEI 3.	**Action: Operations and Program Plan Update** *Attachment 14 – Operations Report – page 56* *Attachment 15 – Q3 2014 Program Plan Update – page 64* -Vote by SFEI Board	9:25 am Jim Kelly
SFEI 4.	**Closed Session – Executive Director Interviews** This agenda item shall be considered notice of closed session IAW Brown Act 54957.7 – all non-directors of the Boards shall be excused and depart the meeting room until notice is provided to reconvene the open session. ***Information and any supporting documents will be provided under separate cover***	9:30 am Jim Fiedler Dave Williams Mitch Avalon
SFEI 5.	**Reconvene for Open Session and Adjourn SFEI Meeting**	3:00 pm* approx.

SFEI Future Agenda Items:

Consider Business model options

Adopt Resolution to appoint Executive Director

Accept 2013 IRS Form 990

ASC Future Agenda Items:

Conflict of Interest policy and ethics training.

Upcoming Board Meetings

Friday, September 12, 2014
Friday, December 12, 2014

Dial-in Information – is Host Ellen Willis-Norton

Toll Free: 1-888-296-6500
Direct Dial: 1-913-227-1219
Guest Code: 604242

PROPOSED STATEWIDE WATER CONTACT RECREATION BACTERIA OBJECTIVES
DRAFT BACWA POSITION

The State Water Board distributed an Issue Summary on their proposed statewide water contact recreation bacteria objectives, where they laid out alternatives for eleven elements of the objectives and identified the preferred alternative. This summary outlines proposed BACWA positions on each of the eleven elements in the Focus Group Issue Paper, and will be discussed and updated at the July 8 BACWA Permits Committee meeting. The invitation-only State Focus Group meeting will be held on July 14, and Amy Chastain (SFPUC) and Lorien Fono (BACWA RPM) will represent BACWA.

1. Bacteria Indicators (related to Element 6)

Recommendation:

- The State would promulgate water quality objectives to protect recreational beneficial uses REC) expressed as (1) *E. coli* for freshwater and, (2) enterococci for marine waters. The State objectives would supersede existing regional Basin Plan objectives to the extent they conflict with them.
- In marine waters, enterococci would be the sole indicator; the existing use of total coliform and fecal coliform for beach recreation is not supported by studies. Harmonizing this option and CDPH bacteriological standards will be considered in the future but is outside the scope of this project.

Regional Considerations:

- The San Francisco Bay Basin Plan (SF Bay Basin Plan) specifies the following water quality objectives for protection of recreational use: enterococci for marine waters and E. coli or enterococci for freshwaters. The Basin Plan objectives for single sample maxima vary based on the intensity of use. See attachment for Table 3-2, which states these objectives.
- In practice, the San Francisco Bay Regional Water Quality Control Board (SF Regional Board) applies the geometric mean of 35 MPN/100 mL objective as an effluent limitation to all POTW discharges to the Bay, and does not take into account the level of use.
- The SF Bay Basin Plan allows substitution of the total coliform effluent limit for enterococci (Table 4-2A, fn b) as an accommodation to agencies who must monitor for total coliform because of recycled water production.
- All agencies that discharge to waters with the shellfish beneficial use (SHEL) would still have to monitor for total coliforms.

BACWA Questions/Position:

- Clarify that the language related to State objectives superseding regional objectives is directed to situations where the regions have *not* adopted enterococci for marine waters.
- Determine whether the total coliform substitution for water recyclers would still be allowed. See State Board proposal Element 6, which appears to be related.
- Support harmonizing State objectives with California Department of Public Health (CDPH) bacteriological standards for posting beaches. Enterococci is the best indicator for marine waters and should be used exclusively. Additionally, request that the State Water Board clarify that, until standards are harmonized, marine beach posting results for total coliform, E. coli, and fecal coliform are inappropriate to use as the basis for impairment determinations.

2. Level of Protection

Recommendation:

- Use EPA's estimated illness rate of 32 per 1,000 people rather than 36, which lowers the objective from a geometric mean of 35 to 30 MPN/100mL, and the statistical threshold value from 130 to 110 MPN/100mL.

Regional Considerations:

- Current permits in the SF Bay region contain effluent limitations equal to the enterococci geometric mean water quality objective of 35 mpn/100ml, as specified in Table 4-2A of the Basin Plan. If the approach to deriving effluent limitations from the objectives does not change, effluent limitations may become more stringent (i.e. drop from 35 MPN/100ml to 30 MPN/100 ml).
- There is no evidence in R2 to suggest that the current objectives and limitations are insufficient to protect recreational users.
- As compared to Southern California beaches in the summertime, San Francisco Bay experiences significantly less water contact recreation.

BACWA Questions/Position:

- No position

3. Address Natural Sources of Bacteria Levels

Recommendation:

- Allow reference system/antidegradation or natural source exclusion approaches to establishing total maximum daily loads (TMDLs).

Regional Considerations:

- The Regional Water Board is developing a bacteria TMDL that will apply to all current and future 303(d) listings. Flexibility in determining which approach to use could be useful, especially if it allows clean up efforts to focus on anthropogenic sources. Data available to the SFPUC for San Francisco beaches suggests that non-anthropogenic sources may be contributing significantly to impairment.

BACWA Questions/Position:

- Cautiously support this approach, recognizing that a reference condition isn't available for the SF Bay.
- Recommend developing guidance on Natural Source Exclusion methodology. Determine whether it is possible to apply these concepts to develop site-specific criteria or otherwise prevent listing of waters and/or ensure that guidance developed discusses how source identification may be used to remove a waterbody from the 303(d) list if anthropogenic sources alone would not cause a listing. Language stating that the natural source exclusion approach still requires "control of all anthropogenic sources" is concerning if "control" is interpreted as elimination. SCCWRP Presentation recommends the development of alternative criteria to protect primary contact uses using scientifically sound tools, and tying the analysis to risk level. (SCCWRP Presentation on Natural Source Exclusion)

4. High Flow Suspension of Objectives for Fresh Waters

Recommendation:

- Allow objectives to be suspended during high water flows in freshwater channels that create unsafe conditions for primary water contact recreation.

Regional Considerations:

- The LA Regional Water Board successfully completed a use attainability analysis and Basin Plan amendment (approved by EPA) that suspended the applicability of primary water contact recreational use during high flows in engineered channels when such use would be unsafe.
- The SF Regional Water Board applies REC 1 to almost all waterbodies regardless of whether use is feasible considering access and safety issues. This exception does not appear to have a direct benefit to most BACWA agencies unless the suspension were expanded to allow for suspension of the objectives in waterbodies where use is restricted (such as in the South Bay marshes).

BACWA Questions/Position:

- Support this exclusion and urge its expansion to include a suspension in marine waterbodies where use is not feasible because of access and safety/or issues.

5. Compliance Schedules and Interim Requirements

Recommendation:

- Allow compliance schedules and interim requirements to be established by regional water board permit writers.

Regional Considerations:

- None

BACWA Questions/Position:

- Support

6. Calculation of Effluent Limits for POTWs

Recommendation:

- Allow regional water board permit writers to specify permit limits based on CDPH guidelines for total coliform.

Regional Considerations:

- The R2 Basin Plan allows for substitution of total coliform for enterococci. It is unclear how many POTWs have permits with this approach (We can ask at permits meeting). It is also unclear whether the State Water Board's proposal would allow this practice to continue or whether enterococci limits would be required in addition to total coliform limits.

BACWA Questions/Position:

- This element is confusing, clarification is needed as to why it only mentions total coliform, but CDPH guidelines for beaches include fecal coliform.
- Clarification is needed to confirm that the purpose of this provision is allow effluent limits for indicator bacteria in addition to enterococci, but that enterococci would always be required (see Element 1)
- Statewide guidance for effluent limitation is not needed.
- Effluent limitations to protect REC 1 should only be based on enterococci, as stated in element 1, studies do not support the use of other indicator organisms.
- Clarify that this position would allow for The SF Bay Regional Board to continue its approach of substituting total coliform limitations for enterococci for POTWs that produce recycled water.

7. Mixing Zones for Point Sources

Recommendation:

- Allow regional boards to apply their own policies and procedures as they relate to dilution.

Regional Considerations:

- R2 staff have allowed dilution in calculating the enterococci effluent limitations of some agencies.

BACWA Questions/Position:

- Support the allowance of mixing zones.
- Request that consideration of mixing zones be mandatory if the POTW demonstrates that recreational area water quality will not be adversely affected.

8. Averaging Periods to Determine Compliance

Recommendation:

- Specify the appropriate averaging period and, potentially, the minimum number of samples over a maximum period of time. The State Board does not describe the appropriate averaging period or minimum number of samples.

Regional Considerations:

- R2 appears to use a rolling geometric mean, recalculated daily, to determine how many exceedances of objectives have occurred in ambient waters. Samples at most beaches are not collected every day, so this approach may overestimate the percentage of time that beaches are not meeting water quality standards. Other approaches involve calculating the geometric mean over a distinct timeframe, such as 30 days.
- R2 uses both geometric mean exceedances and single sample (equivalent to the STV in EPA's criteria) to list waterbodies on the 303(d) list. The Ocean Plan current states that it is state policy that the geometric mean is "strongly preferred for use in water body assessment decisions…because the geometric mean objectives are a more reliable measure of long-term water body conditions [than single sample results]."
- R2 effluent limitations for POTWs are usually a geometric mean of 35 MPN/100mL, with compliance determined by calculating the geometric mean for a discrete month. Even though the State Board is proposing to give regional boards discretion for determining effluent limitations, the regional boards' approach could be influenced by the State Board's approach for determining compliance in receiving waters. Most agencies do not have a problem complying with their enterococci effluent limitations but, if a rolling approach is used and the geometric mean is recalculated daily, there is a possibility that this could lead to more effluent limitation violations.

BACWA Questions/Position:

- This element is confusing; clarification is needed to confirm that the compliance being determined is whether a water is impaired, not whether an entity is complying with effluent limitations.
- BACWA supports calculating the geometric mean for a discrete time period, such as a month, when determining whether a waterbody is impaired and for determining compliance with effluent limitations.
- BACWA supports making 303(d) listing decisions only on the geometric mean rather than STV results.

9. Effluent Monitoring and Reporting Frequency

Recommendation:

- Allow the regional boards to develop their own approach to monitoring frequency.

Regional Considerations:

- Most large POTWs are required sample five days per week, medium to small sample monthly or quarterly. This recommendation does not appear to affect current monitoring frequencies.

BACWA Questions/Position:

- Support.

10. Analytical Methods to Measure Bacteria Indicators

Recommendation:

- Do not specify analytical methods of indicator bacteria, so that any method approved by the regional boards is allowed. This approach eliminates the need to update statewide plans when new methods or approved or recommended.

Regional Considerations:

- None.

BACWA Questions/Position:

- Support.

11. Allow for a Variance, Seasonal Suspension or Limited REC1 Designations

Recommendation:

- Allow the use of a variance, seasonal suspension, or limited REC 1; consider developing a list of factors that must be met to streamline the use attainability process.

Regional Considerations:

- With some exceptions, POTWs in the Bay Area have an effluent limitation that is a geometric mean of 35. Allowing for variances, seasonal suspensions, or limited REC1 designations is not likely to affect these POTWs.
- Allowing these options may result in a more streamlined process for obtaining variances that could be helpful in other contexts.
- Allowing these options may benefit the SFPUC if these options could be applied to locations where the agency's has near-shore wet weather discharges (CSDs)
- Need to recognize seasonal differences in use patterns

BACWA Questions/Position:

- Support (also support option 2).

From SF Bay Basin Plan:

TABLE 4-2A EFFLUENT LIMITATIONS FOR BACTERIOLOGICAL INDICATORS

(ALL UNITS IN MPN/100ml)

PARAMETERS:	DAILY MAXIMUM	SEVEN SAMPLE MEDIAN	5 SAMPLE MEDIAN OR GEOMETRIC MEAN
Enterococcus[a,b]			35 (as geometric mean)
Total Coliform Organisms [b,c]			
Shallow Water Discharge [d] (in immediate vicinity of public contact or shellfish harvesting)	240	2.2	
Deep Water Discharge[e]	10,000		240 (as median)

NOTES:

a. This water quality-based effluent limitation shall be implemented as a geometric mean of a minimum of 5 effluent samples spaced over a calendar month. Fewer samples may be used on a case-by-case basis if allowed in the waste discharge requirements. Equivalent test results based on other analytical methods applicable to enterococcus approved in 40 CFR 136.3(a) are acceptable.

b. For discharges into marine and estuarine receiving waters with the water contact recreation beneficial use, the Water Board will implement the enterococcus effluent limitation. For such discharges, on a case-by-case basis, the Water Board may implement the total coliform effluent limitation in place of the enterococcus effluent limitation. This may occur, for example, when wastewater treatment plants are required by the Water Board or another agency to monitor routinely for total coliform (e.g., for recycled/reclaimed water).

For discharges to receiving waters with the shellfish harvesting beneficial use, or to receiving water designated as freshwater, the Water Board will implement the total coliform effluent limitations.

For intermittent discharges that occur only during wet weather, the Water Board will implement the total coliform maximum daily effluent limitation.

For combined sewer overflows, notwithstanding any other provisions of this plan, discharges from the City of San Francisco's combined sewer system are subject to the U.S. EPA's Combined Sewer Overflow Policy.

Furthermore, the Water Board may apply these limitations selectively to non-sewage discharges, but these limitations shall not preempt Effluent Guideline Limitations established pursuant to Sections 301, 302, 304, or 306 of the federal Water Pollution Control Act, as amended.

c. (1) The Water Board may consider substituting total coliform organisms limitations with fecal coliform organisms limitations provided that it can be conclusively demonstrated through a program approved by the Water Board that such substitution will not result in unacceptable adverse impacts on the beneficial uses of the receiving water.

(2) The Water Board may consider establishing less stringent requirements for any discharges during wet weather.

d. The Water Board may grant exceptions to these requirements where it is demonstrated that beneficial uses will not be compromised by such an exception. Discharges receiving such exceptions shall not exceed a five-sample median of 23 MPN/100 ml nor a maximum of 240 MPN/100 ml during dry weather.

e. The deep water discharge total coliform effluent limitation is a water quality-based effluent limitation.

ISSUE PAPER – SPRING 2014 FOCUS GROUP MEETINGS

PROPOSED STATEWIDE WATER CONTACT RECREATION BACTERIA OBJECTIVES AMENDMENTS TO WATER QUALITY CONTROL PLANS FOR INLAND SURFACE WATERS, ENCLOSED BAYS AND ESTUARIES AND THE OCEAN WATERS OF CALIFORNIA

Introduction

The State Water Resources Control Board (State Water Board) is proposing amendments to the statewide Water Quality Control Plans for Inland Surface Waters, Enclosed Bays and Estuaries and the Ocean Waters of California (Ocean Plan) to include updated water quality objectives for bacteria to protect human health for the beneficial use of water contact recreation (REC 1) in fresh and marine waters (proposed amendments). The proposed amendments may include a revised indicator organism [*Escherichia coli (E. coli)* or enterococci] and risk protection level. The proposed amendments may also include elements necessary for bacteria control implementation including reference beach and natural source exclusion approaches, high flow suspension, variances, seasonal suspensions and designation of Limited Water Contact Recreation (LREC 1). This document presents the purpose and initial scope of the proposed amendments to facilitate discussion and feedback as the amendments are developed.

Background

The Clean Water Act directs states, with oversight by the U.S. Environmental Protection Agency (U.S. EPA), to adopt water quality standards to protect the public health and welfare, enhance the quality of water, and serve the purposes of the Clean Water Act. States' standards consist of: (1) designated uses for all water bodies within their jurisdictions, (2) water quality criteria (referred to as water quality objectives under California law) sufficient to protect designated uses, and (3) an antidegradation policy. States are also required to review their standards once every three years and, as appropriate, modify and adopt standards. The results of a state's triennial review must be submitted to U.S. EPA for approval. Clean Water Act section 303(c) directs U.S. EPA to promulgate standards if it disapproves a state-submitted standard, or if it has determined that a new or revised standard is needed.

Clean Water Act section 304 requires U.S. EPA to develop and publish criteria recommendations to aid states and tribes in developing water quality standards. Those recommendations are not regulations themselves. States may adopt water quality criteria based on U.S. EPA's water quality criteria recommendations or criteria developed using other scientifically defensible methods. A state's adopted water quality standards are the basis for water quality control actions. A state's water quality control actions may include developing water quality-based effluent limitations in National Pollutant Discharge Elimination System (NPDES) permits, a list of waters that do not meet standards, Total Maximum Daily Loads (TMDLs) and, in some cases, posting public notifications at waterbodies where standards are not met.

In 1986, U.S. EPA revised its ambient water quality criteria recommendations for bacteria to protect human health, which advised that the indicators of health risks from bacteria in marine and fresh water be established as *E. coli* and enterococci instead of fecal coliform. U.S. EPA based its revised criteria recommendations on a review of epidemiological studies correlating gastrointestinal illness to specific bacteria indicators.

The Beaches Environmental Assessment and Coastal Health Act of 2000 (BEACH Act) added section 303(i)(1)(A) to the Clean Water Act, which requires states with coastal recreational waters to adopt new or revised water quality standards for the coastal recreation waters for those pathogens and pathogen indicators for which U.S. EPA has published criteria. The BEACH Act also stipulates that if a state fails to adopt criteria in accordance with section 303(i)(1)(A), U.S. EPA must promptly propose regulations for the state setting forth revised or new water quality standards for pathogens and pathogen indicators for its coastal recreational waters. (Clean Water Act § 303(i)(2)(A).) The BEACH Act added subsection (21) to Clean Water Act section 502 to define "coastal recreation waters" as the Great Lakes and marine coastal waters (including coastal estuaries) that are designated by a state for use for swimming, bathing, surfing, or similar water contact activities. The term "coastal recreation waters" does not include inland waters or waters upstream of the mouth of a river or stream having an unimpaired natural connection with the open sea.

In 2012, U.S. EPA issued new recreational water quality criteria (2012 RWQC) recommendations for protecting human health in all coastal and non-coastal waters designated for primary contact recreation use. The 2012 RWQC recommends the use of two bacteria indicators of fecal contamination, *E. coli* and enterococci.

The 2012 RWQC is based on the latest studies which conclude that fecal coliform is not a good indicator of fecal contamination. Studies have also found that while enterococci acts as a good indicator in some fresh waters, it can exist and multiply in other fresh waters and create false positives in samples. *E. coli* has been found to be the most reliable indicator organism in all fresh waters. Additionally, studies have shown that enterococci is a good indicator organism in marine waters.

Table 1 present U.S. EPA's 2012 RWQC

Criteria Elements	**Recommendation 1** Estimated Illness Rate (NGI): 36 per 1,000 primary contact recreators			**Recommendation 2** Estimated Illness Rate (NGI): 32 per 1,000 primary contact recreators	
	Magnitude			**Magnitude**	
Indicator	GM (cfu/100 mL)[a]	STV (cfu/100 mL)[a]	OR	GM (cfu/100 mL)[a]	STV (cfu/100 mL)[a]
Enterococci (marine and fresh)	35	130		30	110
OR					
E. coli – (fresh)	126	410		100	320
Duration and Frequency: The waterbody GM should not be greater than the selected GM magnitude in any 30-day interval. There should not be greater than a ten percent excursion frequency of the selected STV magnitude in the same 30-day interval. NGI = NEEAR – GI illness, NEEAR = National Epidemiological and Environmental Assessment of Recreational Water GM = geometric mean STV = statistical threshold value cfu = colony forming units mL = milliliters					

a U.S. EPA recommends using U.S. EPA Method 1600 (U.S. EPA, 2002a) to measure culturable enterococci, or another equivalent method that measures culturable enterococci and using U.S. EPA Method 1603 (U.S. EPA, 2002b) to measure culturable *E. coli*, or any other equivalent method that measures culturable *E. coli.*

Note that either enterococci or *E. coli* can be selected for fresh waters, but only enterococci can be selected for marine waters. Additionally either estimated illness rate is protective of REC 1 uses. U.S. EPA 2012 RWQC is intended as guidance to states and tribes in developing standards to protect swimmers from exposure to water that contains organisms indicating the presence of fecal contamination.

As most Regional Water Quality Control Boards (Regional Water Boards) basin plans are not currently consistent with the 2012 RWQC, the State Water Board is proposing to adopt the proposed amendments to provide efficient and consistent implementation statewide.

Fundamentals of the Proposed Amendments

Staff is currently contemplating several issues based on the recommendations contained in the 2012 RWQC. That is, staff currently proposes to provide consistent statewide REC 1 bacteria objectives based on the 2012 RWQC, a natural sources exclusion and reference system approach to address natural bacteria levels, suspension for high flow periods, and additional implementation provisions as necessary to provide for efficient and effective permitting and enforcement. As previously explained the State Water Board is not required to follow U.S. EPA's criteria recommendations and may develop its own bacteria objectives. Additionally, peer review would be required if State Water Board staff did not follow U.S. EPA's criteria recommendations. Accordingly, the following eleven elements describe issues staff is currently considering, from which staff plan to develop draft biological objectives and any necessary implementation for the State Water Board's consideration and adoption.

Element 1: Bacteria Indicators

All Regional Water Boards basin plans -currently have existing bacteria objectives for fecal indicator bacteria (FIB) adopted in their regional water quality control plans (basin plans). Some of the existing bacteria objectives include fecal coliform as an indicator organism. Some basin plans also use *E. coli* and/or enterococci as indicator organisms. Insofar as the proposed amendments include bacteria objectives that differ from those currently contained in basin plans, the statewide objectives would supersede those contained in basin plans, to the extent a conflict existed, unless the statewide amendments expressly provide that those conflicting objectives shall remain in effect.

Fresh Waters:
This element would address the issue of setting a statewide bacteria indicator for fresh waters, using U.S. EPA's 2012 RWQC recommendations.

Staff is contemplating the use *E. coli* for a fresh water bacteria indicator, option 3 below.

Staff could consider these options and/or others when developing the proposed amendment:

1. Leave existing bacteria indicators in place. All of the Regional Water Boards basin plans have existing bacteria objectives for fecal indicator bacteria (FIB). Some of the existing bacteria objectives include fecal coliform and/or total coliform as an indicator organism. Some regions also use *E. coli* and/or enterococci as indicator organisms.

2. Use only enterococci as an indicator organism.

3. Use only *E. coli* as an indicator organism.

4. Use both *E. coli* and enterococci as indicator organisms.

Marine Waters:
This element would address the issue of setting a statewide bacteria indicator for marine waters, using U.S. EPA's 2012 RWQC recommendations.

Presently, the Ocean Plan and all of the Regional Water Boards' basin plans have existing minimum protective bacteriological standards consistent with those established by the California Department of Public Health (CDPH) for FIB for water contact recreation in ocean beaches (17 Cal. Code Regs. § 7958.) The bacteriological standards established by CDPH are not consistent with the 2012 RWQC. The CDPH bacteriological standards use three FIB (enterococcus, total coliform and fecal coliform) to protect water contact recreation in coastal waters. CDPH requires public health agencies to perform beach water quality monitoring for FIB and notification for public safety. Those objectives (enterococcus, total coliform, fecal coliform and the fecal/total coliform ratio) would still require public beach monitoring until either a legislative or regulatory change.

Changing the Ocean Plan's REC 1 contact standards to require only enterococci would still leave in effect the CDPH bacteriological standards for FIB, to which local public health agencies performing beach water quality monitoring and public notification must adhere.

Staff is contemplating the use of enterococci for a marine water bacteria indicator, option 2 below.

Staff could consider these options and/or others when developing the proposed amendment:

1. Leave existing bacteria indicators in place. The Ocean Plan and all Regional Water Boards with marine waters currently have bacteriological standards established by CDPH. The objectives use three indicators which are enterococci, total coliform and fecal coliforms.

2. Use enterococci as a sole indicator. The existing use of total coliform and fecal coliform for beach recreation is not supported by the U.S. EPA studies. Harmonizing this option and CDPH bacteriological standards will be considered in the future but is outside the scope of this project.

Element 2: Level of Public Health Protection for Illness Rate
Marine and Fresh Waters:

U.S. EPA 2012 RWQC recommendation for *E. coli* and enterococcus consists of a specific risk level based on an illness rate estimate. U.S. EPA's recommended risk level of 32 per 1,000 primary contact recreators is a more conservative estimate and is therefore more protective of public health than the 36 illness per 1,000 primary contact recreators. Site specific criteria could be developed for specific waters, but it would require potentially costly studies.

Staff is contemplating the use of the more protective estimated illness rate of 32 per 1,000 primary contact recreators, option 3 below.

Staff could consider these options and/or others when developing the proposed amendment:

1. No action – If the State Water Board does not take action, Regional Water Boards will continue to specify water quality objectives for bacteria in their basin plans. They may adopt criteria reflecting risk levels recommended by the U.S. EPA or criteria based on other recommendations.

2. Use the U.S. EPA's estimated illness rate of 36 per 1,000.

3. **Use the U.S. EPA's estimated illness rate of 32 per 1,000.**

4. Use an alternative estimated illness rate.

Element 3: Address Natural Sources of Bacteria Levels
Natural bacteria levels often exceed bacteria objectives even in undeveloped areas. Without a means to address natural sources of bacteria, dischargers might be required to treat their discharges more than necessary. TMDLs have addressed this using a combination of Reference System/Antidegradation Approach and Natural Source Exclusion Approach, but there is no statewide framework that would provide efficient and consistent development.

Federal regulations (40 CFR § 130.7) require that TMDLs include load allocations (LAs) and waste load allocations (WLAs), and that the individual sources for each must be identified and enumerated. The TMDL for a given pollutant and waterbody is the total amount of pollutant that can be assimilated by the receiving water while still achieving WQOs. The TMDL is equal to the sum of individual WLAs for point sources, and LAs for both nonpoint sources and natural background levels.

The Reference System/Antidegradation Approach has two implementation goals in the context of TMDL development: (1) Bacteriological water quality is at least as good as that of a natural (reference) system, and (2) no degradation of existing water quality is allowed, where it is better than natural system.

The Natural Source Exclusion Approach is an alternative to the Reference System/ Antidegradation Approach. Natural sources include direct inputs from birds, terrestrial and aquatic animals, wrack line and aquatic plants, or other unidentified sources within the receiving waters. The Natural Source Exclusion Approach requires the control of all anthropogenic

sources of bacteria and the identification and quantification of natural sources of bacteria. Exceedances are allowed based on residual exceedances of natural sources.

Staff is contemplating the development of both a reference system/antidegradation approach and a natural source exclusion approach, option 2 below. Staff is also contemplating to develop a guidance document for Regional Water Board use in development of TMDLs using reference system/ antidegradation and natural sources exclusion approaches, also part of option 2 below.

Staff could consider the following options and/or others when developing the proposed amendment:

1. No action – Existing basin plans with natural sources/antidegradation exclusions and reference beach approaches would remain.

2. **Allow reference system/antidegradation or natural sources exclusion approaches. Staff will develop guidance to aid Regional Water Boards implementing this option. A guidance document will be developed to provide help in measuring natural sources of bacteria and how to utilize this approach. This option will allow resources for "clean-up" to be directed to areas with anthropogenic sources instead of areas with natural sources of bacteria.**

3. Prohibit the use of reference system/antidegradation or natural sources exclusion approach. This option could require treatment of natural sources, in discharges having to treat bacteria from undeveloped areas. Such requirements, could adversely affect valuable aquatic life and wildlife beneficial uses supported by natural water bodies in the state by requiring the treatment of natural sources of bacteria. This would also lead to the expenditure of unnecessary resources and monies.

<u>Element 4: High Flow Suspension of Objectives for Fresh Waters</u>
This element would allow the suspension of bacteria objectives during high water flows that create conditions that are unsafe for REC 1 uses and objectives are not attainable. Many areas of California have rivers and engineered channels that become unsafe for REC-1 uses during high flow conditions and as a result, REC 1 use is limited or does not exist during those times. The suspension of the associated bacteria objectives during high flows could be allowed under specific conditions.

This element applies only to fresh waters. Staff is contemplating the development of high flow suspension, option 2 below.

Staff could consider the following options and/or others when developing the proposed amendment:

1. No action – The Los Angeles Water Board's existing high flow suspension would remain. Regional Water Boards without a high flow suspension in their basin plans would have to adopt a basin plan amendment if they desire to adopt a high flow suspension policy.

2. **Allow high flow suspension of objectives for engineered and non-engineered channels. Develop guidance for high flow suspensions. The necessity of treatment of discharges during high flows to meet the REC 1 objective would be avoided with this option.**

3. Affirmatively prohibit high flow suspension but specifically provide that the Los Angeles Water Board's may continue to use its existing high flow suspension policy for waters within its region. Under this option, treatment of discharges during high flows would occur, except not in the Los Angeles region consistent with its existing high flow suspension policy.

Element 5: Compliance Schedules and Interim Requirements

This element considers compliance schedules and interim requirements under conditions allowed by the Policy for Compliance Schedules in National Pollutant Discharge Elimination System Permits (Resolution No. 2008-0025). Under the current policy, compliance schedules may be granted for up to 10 years to allow dischargers the time needed to meet new objectives. For bacteria, many major publicly owned treatment works (POTWs) in California are already subject to existing CDPH guidelines for recycled wastewater effluent that are more stringent than the proposed REC1 bacteria water quality objectives being proposed. Therefore, these facilities may have little difficulty meeting permit conditions based on the selected criteria and the consideration of compliance schedules and interim requirements would not apply to POTWs.

Staff is contemplating the "no action" option which would allow the Regional Water Board permit writers to determine if compliance schedules are appropriate on a case-by-case basis, option 1 below. Any compliance schedules would be granted in accordance with the existing Compliance Schedule Policy (Resolution No. 2008-0025).

Staff could consider the following options and/or others when developing the proposed amendment:

1. **No action – This option would result in compliance schedules and interim requirements being established by Regional Water Board permit writers in accordance with the Compliance Schedule Policy (Resolution No. 2008-0025).**

2. Provide that dischargers would be allowed up to a ten-year compliance schedule to meet the new objectives. All dischargers may not comply immediately with new or revised effluent limits based on the proposed bacteria objective. Up to a ten-year timeframe could be granted to implement the necessary controls to comply with new effluent limitations.

Element 6: Calculation of Effluent Limits for POTWs

This element considers the procedure for calculating effluent limits for bacteria indicators, with possible development of written guidance. This element applies only to POTWs.

The U.S. EPA 2012 RWQC recommends "that permitting authorities use an effluent limit derivations approaches that considers both the geometric mean (GM) and statistical threshold value (STV) in the limit calculations, and which results in short- and long-term effluent limits that derive from and comply with all applicable criteria expressions."

However, many POTWs permits contain effluent limits based on CDPH guidelines for indicator bacteria to protect designed beneficial uses for REC 1 or agriculture, including irrigation of food

crops. These effluent limits are typically more stringent than limits based on existing basin plan receiving water objectives for bacteria indicators.

Presently there is no statewide policy for establishing effluent limits for indicator bacteria.

Staff is contemplating the "no action" option for this element rather than following the 2012 RWQC, option 1 below.

Staff could consider these options and/or others when developing the proposed amendment:

1. **No action – Allow Regional Water Boards to specify the permit limits based on CDPH guidelines for total coliform.**

2. Develop statewide guidance for calculating effluent limits based on effluent variability.

3. Develop a statewide guidance for applying the objective at the end of the pipe.

Element 7: Mixing Zones for Point Sources

A mixing zone is a volume of water allocated for mixing with a wastewater discharge where applicable water quality criteria or objectives can be exceeded without causing adverse effects to the overall water body. Mixing zones for bacteria could be allowed in situations where no potential for impairment exists (e.g., deep-water discharges).

This element will consider if mixing zones should be allowed for point source discharges and, if so, procedures for use. There is currently no statewide policy on the application of mixing zones for bacteria discharges.

Staff is contemplating the no action option for this element, option 1 below.

Staff could consider these options and/or others when developing the proposed amendment:

1. **No action – With no statewide policy, existing Regional Water Board policies and procedures will apply. Four of the nine Regional Water Boards have mixing zone provisions in their basin plans. None of the Regional Water Boards specifically prohibit mixing zones.**

2. Allow mixing zones in a small area near an outfall. The mixing zone would allow the existing bacteria limits to be calculated taking into account dilution, if appropriate.

3. Do not allow mixing zones. Bacteria would be measured in the effluent at the end of pipe without any dilution due to mixing.

Element 8: Averaging Periods to Determine Compliance

This element will consider an averaging period for use in determining compliance with proposed bacteria objectives. Compliance is measured using a GM and a STV. U.S. EPA 2012 RWQC states that "The waterbody GM should not be greater than the selected GM magnitude in any 30-day interval. There should not be greater than a ten percent excursion frequency of the selected STV magnitude in the same 30-day interval."

Staff is contemplating to specify an appropriate averaging period, option 3 below.

Staff could consider these options and/or others when developing the proposed amendment:

1. No action – Under this option, Regional Water Boards could specify the period of time (if any) over which data would be collected to calculate a geometric mean. This could lead to inconsistencies in the application of the geometric mean criteria across the state.

2. Specify the geometric mean as a rolling average. Potentially using the rolling average based on a specific number (e.g. 5) of samples. This option would lead to consistency.

3. **Specify the appropriate averaging period. Potentially using a minimum number of samples over a maximum period of time. This option would lead to consistency.**

Element 9: Effluent Monitoring and Reporting Frequency

This element will consider developing guidance regarding effluent monitoring and reporting, including discussion of monitoring frequency. There is currently no statewide policy for monitoring frequency for bacteria in facility discharges to fresh waters. Permit writers determine monitoring frequencies on a case-by-case basis, usually requiring larger dischargers to monitor more frequently than smaller dischargers.

Staff is contemplating the "no action" option for this element, option 1 below.

Staff could consider these options and/or others when developing the proposed amendment:

1. **No action – Currently none of the Regional Water Boards have specific requirements for bacteria monitoring in their basin plans. Monitoring frequency could continue to be specified by their permit requirements.**

2. Establish monitoring frequency for all dischargers. The monitoring frequency could be a minimum number needed to monitor the average bacteria threshold. The guidance could allow for higher frequency to be specified in permits while not allowing any monitoring frequency below the minimum number.

3. Provide narrative guidance which can be used as guidelines to help establish monitoring frequency in NPDES permits.

Element 10: Analytical Methods to Measure Bacteria Indicators

This element will consider the need for analytical methods for monitoring ambient waters and effluent. The 2012 RWQC utilizes analytical methods for measuring indicator bacteria densities in ambient waters and for coastal waters (e.g. membrane filtration methods). The proposed amendment could specify some or all of these methods in effluent monitoring.

Staff is contemplating the "no action" option for this element, option 1 below.

Staff could consider these options and/or others when developing the proposed amendment:

1. **No action – With this option, there would be no specified analytical measures for bacteria indicators. Therefore, any method of determining bacteria densities can**

be used, as approved by the Regional Water Boards for their waters. This option eliminates the need to update the statewide plans to accommodate new methods or U.S. EPA recommendations regarding best sampling procedures.

2. Specify analytical methods for receiving waters and various effluents. The statewide plan would list methods that are acceptable for measuring bacteria concentrations. To accommodate subsequently developed methods or a change in methods based on new information, the State Water Board would require an amendment to the statewide plans. The possible analytical methods that could be considered are:
    a) U.S. EPA approved methods
    b) Rapid Indicators, quantitative polymerase chain reaction (qPCR) on a site specific basis using U.S. EPA method 1611.

Element 11: Allow for a Variance, Seasonal Suspension or Limited REC 1

Allow the use of another beneficial use designation, such as Limited Water Contact Recreation (LREC 1), a variance, or a seasonal suspension for seasonal low flow or intermittent uses. This element would allow a discharger to apply for a variance from meeting the proposed bacteria objectives. Qualification for a variance would be based on a list of conditions that must first be met. Conditions could include such things as modified channel, limited access, seasonal or very limited flows, and required treatment before the water enter another water body.

Seasonal suspension or the designation of LREC 1 would require a Use Attainability Analysis (UAA).

Limited Water Contact Recreation is a beneficial use designation that recognizes body contact is limited in the waterbody due to physical conditions, such as restricted access and very low water depths. The state has waterbodies that in years past have been channelized, and/or lined with concrete or other materials that protect the channel from erosion, in order to provide flood protections. In some cases, these waterbodies have been fenced to limit contact during storm events to protect the public from drowning, while in most other instances the water flow is non-existent or very low. Due to these restrictions, contact with the water is minimal and the REC 1 beneficial use is not an accurate definition of the beneficial use of the waterbody. The Los Angeles Water Board presently has waters with the beneficial use designation of LREC 1.

Staff is contemplating allowing the use of variances, seasonal suspension or the Limited REC 1 designation, option 3 below. Staff is also considering developing a list of factors that must be met in order to streamline the UAA process.

Staff could consider the following options and/or others when developing the proposed amendment:

1. No Action – Under this option, no changes would occur in the designation of the LREC 1 beneficial use where appropriate.

2. Encourage the designation of LREC 1 waters where appropriate. Under this option, the Regional Water Boards could consider de-designation for appropriate waterbodies. Waterbodies with inaccurate beneficial use designation could be de-designated and the appropriate water quality objective applied. Less stringent water quality objectives would conserve limited resources of those agencies that discharge to these waterbodies.

3. **Allow the use of a variance, seasonal suspension or Limited REC 1.**

PROPOSED STATEWIDE WATER CONTACT RECREATION BACTERIA OBJECTIVES AMENDMENTS TO THE INLAND SURFACE WATERS, ENCLOSED BAYS AND ESTUARIES PLAN AND THE OCEAN PLAN
FOCUS GROUP MEETING
PUBLICLY OWNED TREATMENT WORKS AND WATER REUSE AGENCIES

JULY 14, 2014, 9AM - 12PM

JOE SERNA, JR. – CAL/EPA HEADQUARTERS BUILDING, ROOM 2410
1001 'I' STREET, SACRAMENTO, CA 95814
(SEE TRAVEL INFORMATION ON BACK)

Meeting Purpose: to obtain early input on the scope of the State Water Resources Control Board's proposed amendments to the Inland Surface Waters, Enclosed Bays and Estuaries Plan and the Ocean Plan for Statewide Water Contact Recreation Bacteria Objectives (Bacteria Objectives)

AGENDA

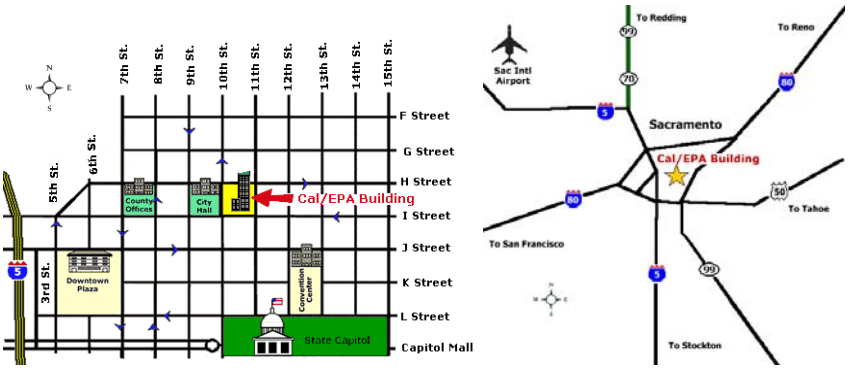
I. **Welcome and Introductions**

II. **Goal of Bacteria Objectives Focus Group Meetings**

III. **Open Discussion – Draft Bacterial Objectives Issue Paper**
All – Discussion of issues

IV. **Closing and Next Steps**

V. **Adjourn**



Travel Information

Visitors Check-in

The California Environmental Protection Agency Building is a secure building. Visitors must check-in at the guard station as they enter the building. They must sign in and receive a temporary badge and must sign out as they leave the building. The guard will contact the Cal/EPA staff for the visitor so they can escort the visitor through the building.

By Air

Sacramento County Airport System is a 20 minute drive from downtown Sacramento. There are several transportation options from the airport to the Cal/EPA Building.

YoloBus has a bus route leaving the airport every hour from Terminal A and Terminal B at approximately 10 minutes after the hour from 7 a.m. to 10 p.m. You stand at the Public Transportation Bus Stop. The route takes approximately 18 minutes to get from the airport to 9th and K Street. This is 2 blocks from the Cal/EPA building. The return trip from 9th and K Street runs approximately 5 minutes after the hour and takes approximately 20 minutes to arrive at the airport. (800) 371-2877.

SuperShuttle Sacramento is another transportation option to and or from the Sacramento Airport. Please provide them with a 24-hour notice to arrange for pick-up service from the Cal/EPA building. (800) 258-3826 or (800) BLUEVAN.

If you are renting a car, see the driving instructions below.

By Train

The Sacramento Amtrak train station is at 401 I Street, six blocks from the Cal/EPA Headquarters building. Amtrak's Capitol Corridor trains operate between the Bay Area and Sacramento with many trains daily. Amtrak California's San Joaquin trains and motor coaches connect the Central Valley from as far south as Bakersfield (and further with their motor coach system) to Sacramento. Other Amtrak trains serving Sacramento include the Coast Starlight and the California Zephyr.

Regional Transit's light rail serves the train station every 15 minutes seven days a week. RT bus routes also link the Station to downtown government offices and the rest of Sacramento County.

By Car

Getting to Sacramento:

- From the Bay Area, take I-80 East, then I-80 Business (Capital City Freeway), then I-5 North.
- From Central/Southern California, take I-5 North, or take US-99 to I-5 North.
- From the east, take US-50 West to I-5 North, or I-80 West to I-5 South.
- From the airport and other points North, take I-5 South.

Once on I-5 in Sacramento

- Take the J Street exit.
- Take J St. east to 11th and turn left.
- Go one block and turn left on I St.

The Cal/EPA headquarters building will now be on your right. It fills the block bordered by I St. on the south (1-way west), H St. on the north (1-way east), 10th St. on the west, and 11th St. on the east.

Parking

Metered Parking (1, 2, and 10-hour meters) is available near the CalEPA building. Meter parking uses quarters (some meters may use special "debit cards").

Parking lots are also available in several nearby locations. The closest lot is across from the building on 10th & I Street.

FOCUS GROUP MEETINGS—SPRING/SUMMER 2014
PROPOSED STATEWIDE MERCURY AMENDMENT

The State Water Resources Control Board (State Water Board) is developing an amendment to the statewide Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries to include water quality objectives for methylmercury and mercury control programs (proposed mercury amendment). The primary goal of the proposed mercury amendment is to restore and improve the chemical, physical, and biological integrity of California's water bodies by reducing levels of mercury in order to support the beneficial uses of fish consumption by humans and wildlife.

I. Purpose of Focus Group Meetings

The purpose of the focus group meetings is for the State Water Board to present the purpose and the initial scope of the proposed mercury amendment, and to gather feedback from key groups to aid in the development of the draft regulatory proposal. This document identifies different options to be considered for each element of the proposed mercury amendment. The options are a starting point to generate discussion about the mercury amendment and will be modified as needed based on focus group meetings. This document also identifies the anticipated timeline for the draft mercury amendment and staff report, the public comment period, the State Water Board workshops, and the proposed mercury amendment adoption meeting.

II. Background

Although mercury occurs naturally in the environment, mercury concentrations exceed background levels due to human activities. Gold and mercury mines; atmospheric deposition; industrial and municipal wastewater discharges; and urban storm water runoff are all sources of mercury that can enter lakes and rivers and accumulate in fish tissue to levels that can be toxic

to humans and wildlife. Additionally, dams and other hydrologic modifications trap mercury enriched sediment and change the chemistry of the water in ways that increase bioaccumulation in resident (both native and non-native) fish.

The form of mercury in fish tissue is primarily methylmercury, which is the most toxic form of mercury. Methylmercury is a potent neurotoxin that can impair memory, language, reasoning, and motor coordination, especially in developing children. In wildlife, methylmercury can affect reproductive success and behavior.

California's current statewide mercury criteria, established in the California Toxics Rule, are outdated since they have not been revised to reflect U.S. EPA's 2001 fish tissue criterion. In addition, the U.S. Fish and Wildlife Service determined that the California Toxics Rule mercury criteria would not protect endangered species as part of the 1998 draft jeopardy ruling. Therefore, a new water quality objective for mercury is needed.

Evaluations of fish tissue data using more recent thresholds for mercury in fish tissue, such as U.S. EPA's 2001 criterion, have revealed that mercury is negatively impacting the beneficial uses of human and wildlife fish consumption in many waters of the state (primarily the beneficial uses of Commercial and Sport Fishing [COMM], Wildlife Habitat [WILD], and Rare, Threatened, or Endangered Species [RARE]). As of 2010, more than 180 water bodies, including 74 reservoirs, are designated as impaired due to elevated levels of mercury in fish[1]. Consequently, the Office of Environmental Health Hazard Assessment has issued fish consumption advisories that warn people to limit their consumption of locally caught fish. The number of waters identified as impaired due to high mercury concentrations in fish is expected to increase substantially as new fish tissue monitoring data are collected and evaluated.

Pursuant to section 303(d) of the Clean Water Act, the State Water Board must identify all waters where required pollution controls are insufficient to support water quality standards and establish Total Maximum Daily Loads (TMDLs) to correct the water quality problems. A TMDL is a plan of action to reduce the pollutant to the level specified by a water quality objective. Two Regional Water Quality Control Boards (Regional Water Board) have adopted TMDLs and site-specific water quality objectives into their respective water quality control plans to address mercury. For example, established TMDLs pertain to the San Francisco Bay, Clear Lake, Cache Creek, and the Sacramento-San Joaquin Delta.

[1] http://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2010.shtml

III. The Primary Elements of the Mercury Amendment

The proposed mercury amendment generally will apply to all inland surface waters, enclosed bays, and estuaries in California. However, staff proposes that the mercury amendment will not supersede existing mercury/methylmercury site-specific objectives for which a Regional Water Board has already adopted a mercury/methylmercury TMDL, including the implementation programs of those TMDLs.

The proposed mercury amendment has three primary elements:

1. **Water quality objective(s):** Regulatory limit(s) for mercury to protect people and wildlife that eat locally caught fish, expressed as concentrations of methylmercury in the fish tissue.
2. **Implementation Program:** A program to achieve the objectives(s) by controlling mercury discharges and production of methylmercury in water bodies, applicable to all waters except reservoirs and upstream watersheds which are included in the mercury control program for reservoirs, described in item no. 3, below.
3. **Mercury Control Program for Reservoirs:** A program of TMDL elements and implementation requirements in reservoirs and upstream mercury sources to attain the objectives where fish tissue concentrations of methylmercury exceed the objectives.

IV. The Anticipated Schedule for the Development of the Proposed Mercury Amendment

Milestone	**Estimated Date**
Focus group meetings (reservoir operators, fisheries agencies, environmental groups, Tribes, permitted dischargers)	May – September 2014
Publicly available draft regulation and technical staff report	Fall 2014
Scientific peer review and staff responses	Fall/ Winter 2014
Draft substitute environmental documentation (i.e. project alternatives, environmental impacts, economic factors)	Fall/ Winter 2014
Public comment period: Draft regulation, staff reports, and draft substitute environmental documentation	Spring 2015
Board Workshop	Summer 2015
Board Adoption Meeting	Fall 2015

V. Options for the Mercury Amendment

Different options for major elements of the proposed mercury amendment are outlined below. Additional options may be identified during the focus group meetings.

1. Water Quality Objectives

The Clean Water Act requires the State Water Board to protect beneficial uses of waters of the United States within California. Water quality objectives are established to protect the beneficial uses of these waters. A water quality objective is the limit or level of a constituent of characteristic that is established for the reasonable protection of beneficial uses of water. Objectives must be based on sound (and peer reviewed) scientific rationale.

1.1. Which water quality objective(s) should be selected for protecting human health statewide?

a. Water quality objective of 0.3 mg/kg methylmercury in fish tissue. This objective would protect consumption of roughly one fish meal (8 oz) every two weeks of California freshwater/estuarine fish (and a moderate amount of store bought fish).

b. Water quality objective of 0.2 mg/kg methylmercury in fish tissue. This objective would protect consumption of one fish meal (8 oz) a week of California freshwater/estuarine fish (and a moderate amount of store bought fish).

c. Water quality objective of 0.05 mg/kg methylmercury in fish tissue. This objective would protect consumption of three fish meals (8 oz) a week (and a moderate amount of store bought fish). Alternatively, this objective would also protect consumption of four to five fish meals a week for people who only consume California freshwater/estuarine fish (no store bought fish).

d. If option “a” or “b” is chosen, then a separate water quality objective could be derived for people that eat large amounts of fish, to be applied on a site-specific basis (see also topic 4.1). A tribal fish consumption study is being conducted to gather information on fish consumption rates for Tribes.

1.2. Which fish species should be selected for the statewide water quality objective?

a. Apply the selected objective (from the section above) to fish that are highest in the food web (top predator fish that tend have highest levels of mercury, e.g. striped bass, black bass, large catfish). If a water body does not have these species, then the objective would be applied to the next highest fish in the food web (e.g. rainbow trout, carp).

b. Apply the selected objective (from the section above) to a mixture of the two types of fish described above, if present in the water body. (Fish lower on the food web tend to have less mercury so this option would be less stringent than option a).

1.3. Depending on the options selected above, should the proposed mercury amendment include an additional water quality methylmercury objective to protect wildlife that eat fish? If option "a" of the above is selected, the 0.3 mg/kg water quality objective, then a separate objective for wildlife will be needed because the U.S. Fish and Wildlife Service determined that the 0.3 mg/kg threshold will not be protective of two out of seven threatened or endangered species evaluated.

a. Derive a separate water quality objective for wildlife, e.g. 0.08 mg/kg for fish that wildlife prey on. This objective would apply to fish smaller than those used for the human health water quality objective. These smaller fish are also lower on the food web and typically have lower mercury levels. The need for this option is dependent on the other water quality objective options selected above.

b. Ensure that the water quality objective selected from the options above protects wildlife.

1.4. Which water quality objective should be selected for protecting sensitive endangered species? The first two options for the water quality objective of 0.3 and 0.2 mg/kg, above, and optional wildlife objective of 0.08 mg/kg, are unlikely to protect the endangered California least tern, a small, sensitive bird that feeds primary on fish.

a. A site-specific water quality objective of 0.03 mg/kg methylmercury in fish less than 50 mm (2 inches) for areas where the least tern live, or other small bird habitat as determined by the applicable Regional Water Quality Control Board (Regional Water Boards).

b. A statewide water quality objective of 0.03 mg/kg methylmercury in fish less than 50 mm (2 inches).

2. Implementation Program

Statewide plans that include water quality objectives must contain implementation programs to achieve the objectives. An implementation program must describe the nature of actions necessary to achieve the objectives, a time schedule for the actions to be taken, and the surveillance and monitoring activities to determine compliance with the objectives.

The proposed mercury amendment contains an implementation program applicable to all inland surface waters, enclosed bays, and estuaries and to discharges to those waters—except reservoirs and watersheds upstream of reservoirs, which will be subject to a separate control program and TMDL (described in section 3, below). The implementation program shall be designed to attain and protect the proposed water quality objectives. In addition, the implementation program will apply to waters that are not attaining the water quality objectives, not included in the mercury control program for reservoirs, and have not already been addressed by an existing TMDL. Additional TMDLs may be developed in the future for impaired waters not currently addressed by a mercury TMDL.

Mercury from California's historic mining and atmospheric deposition of mercury from global and local emissions are likely the major sources of mercury in California water bodies; current discharges are likely less significant sources. How should implementation for the following type of sources be addressed?

2.1. What should the implementation program require of mine owners? Mines or mine tailings can contribute mercury through erosion, storm water, or effluent discharges to water bodies.

> Regional Water Boards could continue to use existing regulatory tools, such as cleanup orders and permits (e.g. waste discharge requirements), to address discharges from mine sites and mining waste (including dredge tailings and dredge fields) that discharge mercury to surface waters. Such permits could require implementation of erosion and sediment controls.

2.2. What should the implementation program require of nonpoint source dischargers (aside from mines) such as surface water runoff from forests, agricultural land, some urban areas, wetland/riparian areas, and hydromodifcations? Soils in California can be either naturally enriched with mercury or contaminated with mercury from gold mining or atmospheric deposition. Landscape changes or activities that increase runoff or erosion can increase the transport of mercury into water bodies. Some wetlands and flooded agricultural lands can be a concern because low oxygen conditions and high organic matter content tend to increase methylation of inorganic mercury.

> Regional Water Boards could continue to use existing regulatory tools (e.g. permits) and base the requirements on State Water Board's *Policy for Implementation and Enforcement of the Nonpoint Source Pollution Control Program*. Permits could require enhanced sediment and erosion control. Also, dredging activities would be required to comply with 401 certification requirements.

2.3. What should the implementation program require of storm water dischargers? Storm water can transport mercury enriched sediments and atmospherically-deposited mercury to water bodies. Construction and road maintenance can affect erosion during storms. In urban and industrial settings, items containing mercury, if not properly disposed of, can also contribute mercury to storm water. In addition, storm drains that allow water to stagnate result in conditions that increase methylation of inorganic mercury.

a. Require best management practices (BMPs) for sediment and erosion control.
b. Require larger municipalities and agencies to implement mercury pollution prevention measures.
c. Establish targets which would trigger BMPs for industrial storm water dischargers that are anticipated to discharge mercury.
d. Require consideration of green infrastructure/low impact development, including structures that increase storm water infiltration or that capture storm water for reuse.
e. Any combination of the above.

2.4. What should the implementation program require of municipal wastewater and industrial dischargers? Major contributors of mercury to municipal wastewater treatment systems include dental offices, hospitals, and schools. The original sources may be mercury amalgam dental fillings, broken thermometers or other consumer products, and hospital equipment. However, since most wastewater treatment plants are efficient at removing mercury, wastewater treatment plants are a relatively minor source of mercury compared to other sources.

a. Effluent limits derived from the national bioaccumulation factor: Use a single national U.S. EPA bioaccumulation factor and a translator to calculate limits for discharges to all water bodies. This would be combined with a variance covering all municipal wastewater and industrial dischargers, which would waive the effluent limits where infeasible and instead stipulate interim requirements, such as performance based limits and reductions through pollution minimization programs.

b. Effluent limits derived from a site-specific bioaccumulation factor: Dischargers could measure mercury concentrations in fish and in the water column in order to calculate site-specific bioaccumulation factors, which would then be used to calculate effluent limits. Dischargers could collaborate in this effort. This option could also include a variance as described above.

c. Performance-based effluent limits derived using current, representative data on mercury concentrations in the effluent.

d. Combination of the above, such as: effluent limits based on bioaccumulation factors (Option a or Option b) for waters exceeding objective; and performance-based limits (Option c) for waters meeting the objective.

e. Load-based limits derived from dischargers' relative contribution to the watershed. See the option presented for the mercury control program for reservoirs for wastewater and industrial dischargers, in section 3 below.

3. Mercury Control Program for Reservoirs

The proposed mercury amendment includes a mercury control program specifically for reservoirs. The mercury control program for reservoirs includes an implementation program for reservoirs and upstream mercury sources where reservoir fish tissue concentrations of methylmercury exceed the water quality objectives. Additionally, the mercury control program for reservoirs includes TMDL elements (i.e. numeric targets, assimilative capacity, allocations, and a margin of safety.

3.1. Should the mercury control program for reservoirs include water chemistry and fisheries management components? Evidence exists which indicates traditional source controls (the control requirements described in section 2, above) are insufficient to reduce methylmercury in reservoir fish, and that we need to consider developing additional actions to reduce methylmercury in fish tissue.

Water chemistry and fisheries management could be evaluated to determine whether current management practices could be modified to reduce mercury levels in the water and fish (in addition to mercury source controls). The proposed mercury control program for reservoirs is divided into two phases:

- Phase 1: For a small number of representative reservoirs, owners and operators would engage in studies and pilot tests, and potentially develop management practices.
- Phase 2: The new management practices identified by the Phase 1 studies and pilot tests could be implemented by the reservoir owners or operators in other reservoirs that have similar or appropriate characteristics.

3.2. What should the mercury control program for reservoirs require of mines?

See the implementation program for mines, described in section 2, above. The same option could apply and an additional option could be:

A strategy to identify and prioritize mine sites and mining waste upstream of reservoirs for cleanup could be developed to address the large number of mines that produced and/or used mercury upstream of reservoirs).

3.3. What should the mercury control program for reservoirs require of nonpoint source dischargers (aside from mines)?

See implementation program for nonpoint source dischargers, described in section 2, above. The same options could be used for the mercury control program for reservoirs.

3.4. What should the mercury control program for reservoirs require of storm water dischargers?

See implementation program for storm water, described in section 2, above. The same options could be used for the mercury control program for reservoirs.

3.5. What should the mercury control program for reservoirs require of municipal wastewater and industrial dischargers? This option is different than the options for the implementation program, described above, because the TMDL calculation is based on the relative contribution of mercury from all sources to the reservoir.

Requirements could be waste load allocations in the form of mercury concentrations, derived using current, representative effluent mercury concentration data. For negligible mercury discharges, there could be minimal or no mercury control requirements and more stringent limits for larger wastewater treatment plants and industrial dischargers. There could also be facility-specific effluent mercury 'trigger' values for the purpose of ensuring that current treatment performance is maintained.

3.6. What should the TMDL targets be for the mercury control program for reservoirs? The TMDL targets need to protect both people and wildlife that consume locally caught fish.

The TMDL targets could be set equal to the selected water quality objectives (see section 1, above).

3.7. What should the assimilative capacity be for the mercury control program for reservoirs? A water body's loading capacity (assimilative capacity) represents the maximum loading of a pollutant that the water body can assimilate without exceeding water quality objectives.

The assimilative capacity for reservoirs could be set at no detectable methylmercury [annual geometric mean] in the water column at a detection limit of 0.009 ng/L. At this water column concentration, 90%–99% of reservoirs are predicted to achieve a target of 0.2 mg/kg methylmercury in fish tissue (see 1.1b, above).

3.8. What should the allocations be for the mercury control program for reservoirs? TMDLs require load allocations for non-point sources (e.g. storm water runoff from non-urbanized areas) and waste load allocations for point sources (e.g. municipal wastewater and industrial dischargers).

The program could include the following allocation types for each source category:

- For non-point sources such as historic mine sites and areas with elevated levels of mercury in soils, the load allocations could be concentration-based. These proposed load allocations are in the form of inorganic mercury concentrations in suspended sediment in water.

- For point sources such as wastewater treatment facilities, the waste load allocations could be concentration-based. These proposed waste load allocations are in the form of inorganic mercury concentrations in effluent.

- For atmospherically deposited mercury, the load allocations could be load-based. These proposed allocations apply statewide and distinguish between local, global, and natural mercury emissions and deposition to California.

3.9. What should the TMDL margin of safety be for the mercury control program for reservoirs? TMDLs are required to have a margin of safety to account for uncertainties in the analysis.

The combination of (a) reservoir water chemistry management, (b) fisheries management, and (c) allocations assigned to mercury sources, could provide redundancy and hence an implicit margin of safety.

4. Additional Considerations

4.1. How should the State Water Board recognize Native American culture and subsistence fishing as beneficial uses of waters?

The State Water Board could establish beneficial use definitions of Native American Culture (CUL) and Subsistence Fishing (FISH) so that Regional Water Boards may designate those uses for waters located within their respective regions. The adoption of new beneficial uses contained in the proposed mercury amendment would not designate those uses to any water bodies. The definitions for the new beneficial uses would be based on input from Tribes. These definitions will also be discussed with the environmental justice community and other interested parties as well.

4.2. Should the mercury amendment do more to address atmospheric deposition of mercury? Substantial (i.e. 50% to 95%) reductions in California and national mercury emissions are already expected as a result of recent air regulations. However, global emissions may remain the same. Many countries are working to reduce mercury emissions and have signed a global treaty to reduce mercury pollution, but in other developing countries mercury emissions could continue to increase.

The State Water Board could work with U.S. EPA, the California Air Resources Board, and local Air Quality Management Districts to develop plans and schedules to evaluate local and statewide mercury air emissions and deposition patterns. Depending on the results of those studies, the State Water Board could work with these agencies to develop additional mercury emissions reduction programs and target any identified hotspots.

4.3. Should the mercury amendment incorporate periodic review or revisions? Water quality objectives are already subjected to periodic review according to the California Water Code and the Clean Water Act.

The mercury control program for reservoirs could incorporate periodic State Water Board review. At the review, the State Water Board could consider modification of targets, cleanup goals, allocations, implementation provisions and compliance schedules, or alternative regulatory approaches.

4.4. People may continue to eat fish contaminated with mercury as well as other contaminants, by custom, need, or choice. To what extent should public exposure reduction be included in this mercury amendment? Public exposure reduction efforts should also consider including other contaminants, such as polychlorinated biphenyls (PCBs).

a. Increase scope of the mercury amendment to include public exposure reduction (e.g. public education or advisories).

b. Do not include public exposure reduction in the scope of work of the mercury amendment. Continue working with other agencies on public exposure reduction by providing data on the levels of mercury in fish in order to generate consumption advisories.

c. Same as option "b", but keep mercury a high priority for monitoring, providing more data to support more advisories than option "b".

VI. For More Information on the Proposed Mercury Amendment

Water Board Contacts

Vicky Whitney, Deputy Director for Water Quality, State Water Resources Control Board

- Vicky.Whitney@waterboards.ca.gov, (916) 341-5568

Thomas Mumley, Assistant Executive Officer, San Francisco Bay Regional Water Quality Control Board

- Thomas.Mumley@waterboards.ca.gov, (510) 622-2395

Carrie Austin, TMDL Section, San Francisco Bay Regional Water Quality Control Board

- Carrie.Austin@waterboards.ca.gov, (510) 622-1015

Patrick Morris, Mercury Metals TMDL Unit, Central Valley Regional Water Quality Control Board

- Patrick.Morris@waterboards.ca.gov, (916) 464-4621

Amanda Palumbo, Division of Water Quality, State Water Resources Control Board

- Amanda.Palumbo@waterboards.ca.gov, (916) 341-5687

Stacy Gillespie, Office of Chief Counsel, State Water Resources Control Board

- Stacy.Gillespie@waterboards.ca.gov (916) 341-5190

Program Website

- http://www.waterboards.ca.gov/water_issues/programs/mercury/

Proposed Statewide Mercury Amendment
Focus Group Meeting
July 14, 2014
1:00p.m. – 4:00 p.m.

Cal/EPA Headquarters Building, Room 350
1001 I Street, Sacramento, CA 95814

Please arrive by 12:45 p.m. as you will need to check in at the first floor and will be escorted to the third floor. For more information on travel to the Cal/EPA building, please refer to:
http://www.calepa.ca.gov/EPABldg/location.htm

Attendees: Publicly owned treatment works and water reuse agencies, by invitation only.
Meeting Purpose: Obtain early input from the POTWs concerning the proposed amendment to the statewide Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries—Methylmercury Objectives and Mercury Control Program (mercury amendment), which includes water quality objectives for methylmercury for the protection of human and wildlife that consume locally caught fish.

AGENDA

I. Welcome and Introductions (1:00 p.m. – 1:10 p.m.)

II. Background of the Developing Mercury Amendment (1:10 p.m. – 1:30 p.m.)

Amanda Palumbo, State Water Resources Control Board

III. Discussion on Elements of the Developing Mercury Amendment (1:30 p.m. – 3:50 p.m.)

All – Discussion of the staff approach

A document describing the developing proposal is attached to this email.

During the discussion we will be covering these types of questions and asking for your input.

1) What aspects of the mercury problem (or the mercury amendment) are important to you?

2) What would you like to see included in this mercury amendment?

3) Which fish consumptions rates and which species best reflect your community's fish consumption habits?

4) What action would you like to see to control mercury sources?

5) Is the establishment of beneficial use definitions for Native American Culture (CUL) and Subsistence Fishing (FISH) important to you?

6) Are there other options or considerations that the mercury amendment team could consider?

IV. **Closing, Next Steps, Action Items** (3:50 p.m. – 4:00 p.m.)

Summary Report of Mercury Focus Group Meeting Between SWRCB/POTWs
7/14/14
Prepared by: Tim Potter

Rik Rasmussen hosted the meeting and Amanda Palumbo who will be lead for the project made the staff presentation. Four other SWRCB and two Region 5 staff were present. The state provided meeting facilitation support. POTW representatives included Debbie Webster (SVCWA), Ann Heil (LACSD), Adam Link (CASA), Lisa Voight (SRCSD), Garrett Haertel (MRWPCA), and Tim Potter (BACWA).

Amanda stated the PowerPoint presentation would be made available after the meeting. In general, the agenda was followed and the issues identified in the resource document for the focus group meetings were addressed (attached).

SWRCB staff opened the meeting with several key points:

- New standards are needed but these Focus Group Meetings are being held very early in the process. While they have spent time to flush out the issues, they have not started developing text to implement new standards to avoid getting locked into certain elements.
- Approach the implementation strategy with a guiding principle to "assign responsibility commensurate with level of contribution".
- Staff recommendation will to apply these modified standards statewide unless a RWQCB has adopted mercury TMDL.

Rik qualified that the exclusion of water bodies with mercury TMDLs could be overruled by the SWRCB early in the meeting. When asked to clarify this qualification, Rik stated that it was his habit to always identify that staff recommendations could be overruled by the Board but there has been no indication so far the Board would pursue this action. Rik also stated that none of the other Focus Group Meeting participants have objected to the exclusion of existing mercury TMDLs.

Following is a brief summary of the "leaning" of the SWRCB to develop these standards:

- Fish tissue water quality objective of 0.2 mg /kg methylmercury which would be protective of one 8 oz. fish meal per week consumption rate.
- Apply objective to highest trophic level fish if present in water body. Apply to lower trophic level fish if not present.
- Set objectives at level that protects wildlife which the 0.2 mg/kg achieves.
- Set objective of 0.03 mg/kg methylmercury for fish less than 50 mm to protect the California Least Tern; would only apply to the Least Tern habitat.
- Encourage the designation of beneficial uses for Native American Culture (CUL) and Subsistence Fishing (FISH) for RWQCBs to use when appropriate.

Ann identified the effort in other areas to use the probabilistic approach to standard settings to avoid the amplification of multiple safety factors through different stages of the standard setting. SWRCB staff stated knowledge of this strategy. Implementation strategies were reviewed with the setting of POTW effluent limits based on the new objectives generating the most dialogue.

SWRCB requested input about including public exposure reduction in the new standards. Consensus that POTWs should not be assigned responsibility to develop and deliver this message and that the appropriate state agency should manage this communication. Debbie and Tim identified problems encountered while trying to comply with related standards in the mercury TMDLs for the central valley and SF Bay. Rik acknowledged the problem but the issue was not addressed after some brainstorming.

EXECUTIVE BOARD CHAIR AUTHORIZATION REQUEST

FILE NO.: 13,356

DATE: June 30, 2014

TITLE: Chair Authorization for extension of AED support from Alexandra Gunnell through July 24, 2014 not to exceed $9,999.00.

ACTION

Executive Board Chair authorization for executing a contract with EPC Consultants to provide for AED training support form Alexandra Gunnell through July 24, 2014.

SUMMARY

Alexandra Gunnell, BACWA's longtime Assistant Executive Director, is now an employee of EPC consultants. Ms. Gunnell resignation left little time to transfer years of knowledge to the new AED. Given that BACWA contract staff operate, by necessity, in a very independent manner and such operation provides little personal support often found in an office environment when new employees hire on, it is essential that the new AED has the maximum exposure and assistance from the our-going AED in order to provide, as much as possible, seamless support to the BACWA membership. This contract will l allow Ms. Gunnell to continue to provide AED training support to the new BACWA AED through July 24, 2014. The Scope of Work for the services is shown as Attachment A.

FISCAL IMPACT

This is not included in the approved Fiscal Year 2015 budget and workplan and thus the budget for the AED will likely be exceeded by $9,999 in FY 15.

ALTERNATIVES

No other alternatives were considered as the BACWA contracting policies authorize a sole source selection process for contracts under $50,000 and the out-going AED is the only individual capable of providing the needed services.

Attachments:

1. Scope Letter

epc

June 13, 2014

David Williams
Executive Director
Bay Area Clean Water Agencies
PO Box 24055, MS 59
Oakland, CA 94623
dwilliams@bacwa.org

RE: Proposal for Alexandra Gunnell for Administrative Support Services

Dear Mr. Williams,

We are pleased to propose Ms. Alexandra Gunnell to provide administrative support to Bay Area Clean Water Agencies' Executive Director and Executive Board on their programs.

Ms. Gunnell's unburden rate is $64.00 per hour and billable rate is $152.32. We are proposing Ms. Gunnell to work on the project for a not to exceed hours of 10 hours per week beginning June 23, 2014 to July 31, 2014. The cost for her services is anticipated to be in the amount of $9139.20 (60 hours x$152.32).

If you have any questions, please feel free to give me a call.

Sincerely,

Steve Wang
President

EXECUTIVE BOARD CHAIR AUTHORIZATION REQUEST

FILE NO.: 13,353

DATE: June 30, 2014

TITLE: Chair Authorization to increase FY14 Contract with Sherry Hull, AED, not to exceed $2,000.00.

ACTION

Executive Board Chair authorization to execute an increase to FY14 Contract with Sherry Hull. Sherry has exceeded the $8,000.00 FY14 Contract and will be about $2,000.00 over for FY14.

SUMMARY

This increase will allow Sherry Hull to continue to provide AED support to BACWA through FY14.

FISCAL IMPACT

This is included in the approved Fiscal Year 2013-2014 budget and workplan and funds are available

ALTERNATIVES

No other alternatives were considered as the BACWA contracting policies authorize a sole source selection process for contracts under $50,000.

Attachments:

1. Approval Email from Chair

EXECUTIVE BOARD AUTHORIZATION REQUEST

AGENDA ITEM NO.: 8c

DATE: June 30, 2014

TITLE: Authorization for SFEI to reallocate funds between contracts.

ACTION

Executive Board authorization for SFEI to reallocate funds between contracts.

SUMMARY

BACWA's Contracting Policy does not provide the Executive Director or the Chair the authority to move funds between contracts with the same entity and thus Board approval is required. In FY 14 BACWA provided $675,000 to SFEI for scientific studies associated with implementation of the Nutrient management Strategy. This amount was divided between two contracts with SFEI due delays in developing the comprehensive scopes of work for the studies. As the work has progressed, SFEI realized their estimates for some scope items were underestimated while others were overestimated. This Authorization will allow SFEI to reallocate funds between tasks within the two contracts executed in FY 14. The reallocation of funds between the tasks within the two contracts is shown in the attached table. It is important to note that SFEI will complete all work under all tasks within the two contracts and no additional funds will be required from BACWA.

FISCAL IMPACT

This approval is for the reallocation of funds between the two contracts with SFEI executed in FY 14 and will result in no added costs to BACWA.

ALTERNATIVES

No other alternatives were considered as the request reflect the actual need for task funds by SFEI, and all scope items will be completed within the original overall budgets for the two contracts..

Attachments:

1. Table showing reallocations

July 2014 Reallocation

Source of funds

BACWA contract #	SFEI Project #	Task	Name	Original Budget	Funds Removed	New Budget
12,980	1092.10	2.2	Moored Sensors	$150,000	$25,000	$115,000
12,980	1092.10	2.2	Moored Sensors	$150,000	$10,000	$115,000
12,980	1092.10	2.4	Monitoring Program Development	$75,000	$15,000	$60,000

Destination for funds

BACWA contract #	SFEI Project #	Task	Name	Original Budget	Funds added	New Budget	Emily's notes
13,064	1092.20	1.1	LSB Synthesis	$115,000	$25,000	$140,000	Funds will be used for completion of LSB synthesis in July 2014.
13,064	1092.20	7.1	Science Oversight and Project Mana	$75,000	$10,000	$100,000	Funds will be used to support Dave Senn's FY2015 proposal preparation in May/June
13,064	1092.20	7.1	Science Oversight and Project Mana	$75,000	$15,000	$100,000	Funds will be used to support Dave Senn's FY2015 proposal preparation in May/June

BACWA EXECUTIVE DIRECTOR AUTHORIZATION REQUEST

FILE NO.: 13,349

DATE: June 24, 2014

TITLE: Chinook Book for Advertising Baywise Website.

RECOMMENDED ACTION

Chair authorization to transfer funds between line items on the BAPPG FY 14 Budget in order to fund an agreement with Chinook Book in an amount not to exceed $3,400. Advertising the Baywise Website for the Bay Area Pollution Prevention Group will be included in the annual Chinook Book edition for late summer 2014 and the Chinook Coupon Application.

SUMMARY

This project will assist BAPPG in advertising the Baywise website. The Chinook Books are coupon books for environmentally minded residents who live in the Bay Area. The books are reproduced annually and the Chinook App will increase the distribution; the advertisement will be used for the entire 2014-2015 fiscal year.

FISCAL IMPACT

This item is included in the approved Fiscal Year 2013-2014 under the unplanned issues line-item. Insufficient funds remain in the unplanned issues line-item to fund the proposed effort. However, unused funds are available under the Toilets Aren't Trash Cans line-item in the budget.

ALTERNATIVES

No other alternatives were considered as the BACWA contracting policies authorize a sole source selection process for contracts under $50,000.

Approved By:	Date:
_____	_____

BACWA EXECUTIVE BOARD ACTION REQUEST

AGENDA NO.: 9

FILE NO.: File 12,786

MEETING DATE: July 15, 2014

TITLE: Amendment to Executed Contract to change Scope of Work.

☒ **MOTION**_____ ☐ **RESOLUTION**_____

RECOMMENDED ACTION

Consider authorizing an amendment to the agreement with Whitley Burchett & Associates (WBA) for a not to exceed amount of $35,429 for providing assistance to the Recycled Water Committee to compile information on the availability of recycled water fill facilities and on-going technical support on regulatory issues.

SUMMARY

In 2012 BACWA entered into an agreement with WBA to provide support for the development of the IRWM Plan Update. The agreement was amended in 2013 to extend the term of the agreement to June 30, 2014. In 2014 the agreement was again amended to add scope items for assistance on the preparation of the Prop 84 Drought Solicitation Pre-Application effort.

Once the scope on a contract has been completed, any remaining funds should revert back to the BACWA reserves to fund other BACWA initiatives. In the past however funds remaining once a scope of work had been completed would be routinely carried forward for use as needed. When the BACWA Board approved the FY 15 budget, they stated their policy going forward is to be informed of all requests for carry forwards on previously approved contracts for which the scope had been completed so they could evaluate the request for funds along with the all the other BACWA priorities.

This request if for a third amendment to the Whitley Burchett & Associates (WBA) existing agreement to fund two new tasks. The first new task is to support the BACWA Recycled Water Committee with a Recycled Water Fill Facility Survey; the second new task is general consultant support for recycled water regulatory and drought-related issues.

FISCAL IMPACT

Funds are available under the original contract to fund the requested third amendment.

ALTERNATIVES

Do not fund the third amendment and return remaining funds to the BACWA reserves.

Attachments:

1. Scope modification from Recycled Water Committee

Amendment No. 3

BAY AREA CLEAN WATER AGENCIES
and
WHITLEY BURCHETT & ASSOCIATES
AGREEMENT

Recycled Water Committee Support

SCOPE MODIFICATION

July 15, 2014

The purpose of the scope modification to Whitley Burchett & Associates (WBA) existing agreement is to re-allocate the remaining funds to fund two new tasks. The first new task is to support the BACWA Recycled Water Committee with a Recycled Water Fill Facility Survey; the second new task is general consultant committee support for recycled water regulatory and drought-related issues.

Existing WBA Authorization

In 2012, BACWA retained the services of WBA to provide support to the BACWA Recycled Water Committee for the development and review of the 2013 Bay Area IRWM Plan Update (BAIRWMP). WBA's role was to coordinate and review proposed project submittals, assist the chair with project prioritization, and review and comment on the BAIRWMP draft update. The original budget authorized for this effort was $49,906. The 2013 BAIRWMP has been completed and approved by the BAIRWM Coordinating Committee. Amendment No. 1 to WBA's original authorization was issued in June 2013 to extend the end date of the agreement to June 30, 2014.

Amendment No. 2, approved May 16, 2014, extended the end date of the agreement to June 30, 2015 and revised the scope of work to include two new IRWM related tasks to support the BACWA Recycled Water Committee. The new tasks were to provide Committee support with the preparation of a Bay Area Prop 84 Round 3 Sub-regional Concept Submittal and the 2014 Drought Solicitation Pre-Application effort. These two tasks have been completed. As of June 30, 2014, WBA has a remaining budget of $35,429.58 under the existing authorization.

Summary of WBA Authorizations

Authorization	Term	Budget
BACWA Professional Services Contract, 8/1/2012	Aug. 1, 2012 - June 30, 2013	$49,906
Amendment No. 1 Term Extension 6/27/2013	Aug. 1, 2012 - June 30, 2014	No Change

Amendment No. 2 Term Extension and Tasks 5 and 6 added	Aug. 1, 2012 - June 30, 2015	No Change
Proposed Amendment No. 3 *Task 7 and 8 Added*	*Aug. 1, 2012 - June 30, 2015*	*No Change*

Background

Recycled Water Fill Facilities. In April 2014, a representative from Caltrans attended the BACWA Recycled Water Committee meeting and indicated that in response to drought conditions, their goal is to reduce potable water use in association with their construction projects by 50%. Current Caltrans' non-potable water uses include construction, operations and maintenance, irrigation, soil compaction, dust control, and concrete mixing. Caltrans requested information on the location and quality of recycled water available at existing recycled water fill stations in the greater Bay Area. This information would be used by Caltrans and their contractors to reduce potable water consumption. A list of agencies with fill facilities does not exist.

The BACWA Recycled Water Committee sees value during the drought and beyond in documenting the Bay Area fill facility opportunities. This information can be used to promote and expand the use of recycled water for construction, irrigation and other non-potable uses in the Bay Area, resulting in potable and/or groundwater savings, and in many cases reduced wastewater discharges. Information on fill facilities can be used by Caltrans, water districts and private contractors to direct non-potable water haulers to recycled water fill facility locations.

Regulatory Activities. One of the functions of the BACWA Recycled Water Committee is to keep membership informed of recycled water regulatory activities, and participate in local, state and national discussions that could affect current and future projects or operations in the Bay Area. In some instances, the Recycled Water Committee may see a need in preparing comment letters or preparing types of documents. The Committee is seeking consultant support to assist with activities such as gathering information on regulatory activities, compiling comments, and drafting documents. Additionally, drought-related task assistance is desired by the Committee to provide support with tasks that may arise as the drought continues.

Proposed New Scope of Work

This contract amendment would add the following new tasks to the existing WBA agreement.

Task 7: Recycled Water Fill Facility Study

WBA will compile recycled water fill facility information from Bay Area agencies and prepare a technical memo documenting the findings. WBA will survey agencies that provide recycled water in the nine Bay Area Counties and document if they have existing or planned future fill facilities. Information on fill facility locations, permitting and training requirements, contact names and numbers, costs, type of fill facility (e.g., hydrant, overhead fill) and other useful data will be collected and included in the technical memo. The memo will include summary tables designed to provide easy to access information for those looking for fill facilities.

A draft technical memo will be delivered to the Recycled Water Committee Chair, and based on comments received a final version will be produced.

Task 8: Recycled Water Regulatory and Drought-Related Assistance

Under this task, WBA will support the BACWA Recycled Water Committee with tasks related to regulatory issues such as those concerning the recycled water permitting, salt/nutrient management plans, and proposed updates to recycled water regulations to encourage recycling. As the drought continues, assistance may be needed with other drought-related tasks. This effort will include up to 40 hours of work time through June 30, 2015. WBA's specific assignments would be as-needed and at the direction of the Committee Chair.

Budget

The budget estimate to perform the new scopes of work is estimated at $35,430. This additional work is within the remaining WBA's 2012-2015 budget authorization and will not change the total authorized budget.

TASK	Managing Engineer	Engineer	Costs
	$225	$168	
Task 4 –Project Management	6		$ 1,350
Task 7 –Fill Facility Study	34	106	$25,458
Task 8 - Regulatory & Drought Assistance	30	10	$ 8,430
Subtotal	70	116	$35,238
Expenses			$ 192
Total Costs			$35,430

Schedule

The proposed work would begin upon receipt of a Notice to Proceed from BACWA and continue through June 30, 2015, the current term of WBA's existing BACWA authorization, unless BACWA determines the necessity to extend the term of the agreement.

BACWA NUTRIENT WATERSHED CASE STUDIES SYMPOSIUM
ELIHU M. HARRIS STATE OFFICE BUILDING
1515 CLAY STREET, OAKLAND, CA. 94612
MONDAY, OCTOBER 6, 2014
8 am to 4 pm

SYNOPSIS OF POTENTIAL NUTRIENT WATERSHED CASE STUDIES
AS OF JULY 11, 2014

WATER BODY	GEOPOLITICAL CHARATERISTICS	SOURCES AND IMPAIRMENT	REGULATORY DRIVERS, STAKEHOLDER INVOLVEMENT, AND RESTORATION PROGRAMS	LESSONS LEARNED
Chesapeake Bay	Largest estuary in the U.S., 3rd largest in the world. Watershed covers 6 states and D.C., ~17 million people, and 64,000 sq. mi. Complex ecosystem that includes important habitats and food webs. Complex waterbody hydrodynamics.	Sources: point and non-point, including POTWs. Aquatic life and habitat impacts due to excessive nutrients. Invasive species (zebra mussels, catfish, nutria, etc.).	Chesapeake Bay Program was founded in 1983, and is a regional partnership that leads and directs Chesapeake Bay restoration and protection. Seven (7) Bay jurisdictions, and the Bay Program Partners, which includes federal and state agencies, local governments, non-profit organizations and academic institutions, govern the watershed. 1987Chesapeake Bay Agreement set the first numeric goals to reduce pollution and restore the Bay ecosystem 2009: Executive Order established Chesapeake Bay a “National Treasure”. 2010: TMDL established for nitrogen, phosphorus, and sediment (annual average loadings).	Well-organized governance structure is essential. Stakeholder interest and involvement. Leverage collaboration and partnerships for improvements. Acceptance of adaptive management approach is key. Efficiencies can be achieved through

			2012 - Each of the seven Bay jurisdictions is now creating a Watershed Implementation Plan (WIP) that spells out detailed, specific steps the jurisdiction will take to meet TMDL/WLA pollution reductions by 2025. A pollutant-trading program is also place, and provides flexibility in meeting the targeted reductions. Results: The Chesapeake Bay TMDL Tracking and Accounting System (BayTAS) is an interactive tool that allows the EPA, Bay Program partners and Bay jurisdictions to track progress toward implementing the Chesapeake Bay TMDL. Complex approaches are taken to modeling, data, etc. The Chesapeake Bay Program releases the results of the Bay Model Runs each year, which projects the Total Maximum Daily Load (TMDL) reductions for Nitrogen, Phosphorous and Sediment achieved by states in accordance with their Watershed Implementation Plans. The final goals for nutrient and sediment load reduction are to be met by 2025 and states are expected to have achieved 60% of that goal by 2017.	coordinated monitoring, tracking and accounting program. Federal funding leads investment. Pollutant trading program helps provide more cost-effective compliance.
Long Island Sound	Watershed covers ~16,000 sq. mi. and 18 million people. Major Connecticut cities on the Sound include Bridgeport, New London, Stamford, Norwalk, and New Haven. Cities on the New York side of the Sound include Rye, Glen Cove, New	Sources: Sewage treatment plants, combined sewer overflows, agricultural runoff, urban runoff, and atmospheric deposition Aesthetics, fishing, and water contact recreation designated uses impaired due to reduced dissolved	1994 - To address the water quality problems, EPA created the Long Island Sound Study (LISS) to support development of a TMDL. Stakeholders are the “Long Island Sound Study partners”, including: state and federal agencies; private organizations; educational institutions; Connecticut Department of Environmental Protection; New York State Department of Environmental Conservation; municipalities along the Sound’s shore throughout New York; municipalities in Connecticut; New England Interstate Water Pollution Control	Well-organized governance structure is essential. Staged/phased implementation reduces risk of ineffective investments. Government agency interest and

	Rochelle, and portions of New York City (the boroughs of Queens and the Bronx).	oxygen levels and excessive algal blooms. Major environmental problems currently affecting the Sound include hypoxia, toxic substance and pathogen contamination, debris and other man-made pollution, and overdevelopment.	Commission; and the U.S. Environmental Protection Agency. The federal government and the states of New York and New Jersey agreed to the TMDL and subsequent plan to reduce the dumping of nitrogen into the Sound. The goal is to attain a 58.5 percent reduction in nitrogen discharges to Long Island Sound from Connecticut and New York by upgrading sewage treatments plants with nitrogen removal technologies, reducing atmospheric deposition by controlling nitrous oxide emissions from vehicles, and controlling polluted runoff through stormwater best management practices and growth management. The TMDL implements innovative strategies, including a nitrogen credit trading program for sewage treatment plants in Connecticut, and bubble permits for sewage treatment plants in New York. Results point to significant nitrogen reductions in Long Island Sound, and significant cost savings Early 2006 - New York agreed to further lower nitrogen emissions and was given until 2017 to meet its reduction goals. By 2007 - $617 million had been spent in upgrading sewage treatment plants, with 39 out of 104 retrofitted to remove nitrogen. The NYC Department of Environmental Protection said it is currently spending millions of dollars in upgrades to its four sewage treatment plants, and that the upgrades should significantly further cut nitrogen discharges.	involvement helps maintain continuous progress. Outreach and education activities improve the quality of review and comment by stakeholders. Targeted implementation helps by tracking the comparative progress of WQ improvement strategies. Unknowns due to the complexities of the fate and transport of nutrients can affect progress towards water quality improvements. Acceptance of adaptive management approach is key.

			Results: There have been some water quality improvements over the years. Levels of nitrogen have decreased in the waters off Stamford, Connecticut and in some areas west of Stamford. Yet some nitrogen pollution has been stored in the sediment at the bottom of the Sound, and warmer weather also reduces the levels of dissolved oxygen, according to the Sound Study officials.	
Tampa Bay	Open water estuary; 400 sq. mi.; open water; ~2,400 sq. mi. watershed; ~30% urbanized. Contains 6 embayments and the Manatee River: Old Tampa Bay; Hillsborough Bay; Middle Tampa Bay; Lower Tampa Bay; and Boca Ciega Bay. Currently 2.1 million people - expected to double by 2050	Major sources of nitrogen loadings to Tampa Bay include: stormwater (63%), atmospheric deposition (21%), wastewater treatment plants (9%), and industrial dischargers (3%). The breakdown of the 63% stormwater contribution is: 29% residential & commercial; 27% agricultural and pasturelands, 6% mining, and 1% undeveloped land.	1996 - The Tampa Bay Estuary Program (TBEP) formed the Tampa Bay Nitrogen Management Consortium (NMC), consisting of participants from local governments, agencies, and private industry and businesses. The NMC was formed to develop Action Plans to meet the bay segment “hold-the-line” nitrogen load targets to the 1992-1994 period. 1990’s - the NMC collectively developed a Consortium Action Plan that included a number of nitrogen load reduction/preclusion projects designed to maintain the TN loadings at or below the target levels. 1998 – US EPA mandated TMDL established for nitrogen. 2002 - Original thresholds were adopted as part of FDEP’s Reasonable Assurance determination for Tampa Bay. It was determined that Tampa Bay’s seagrass restoration goals could be achieved if annual chlorophyll-a concentrations remained below these thresholds. 2010- The FDEP finalized a WQBEL for the Tampa Bay estuary in accordance with the allocations	Well-organized governance structure is essential. Acceptance of adaptive management approach is key. Staged/phased implementation reduces risk of ineffective investments (e.g. starting with “no net increase” goal). Presence of a TMDL helps affect a successful outcome. Efficiencies can be achieved through coordinated monitoring, tracking and accounting program.

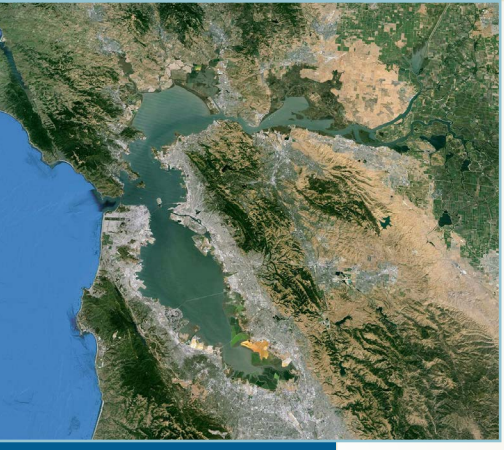
			developed under the 2009 Reasonable Assurance (RA) Addendum. 2012 - The NMC developed allocations commensurate to the nitrogen loads estimated during the 1992-1994 "hold-the-line" (or “no net increase”) period for all major nitrogen load sources to Tampa Bay. <u>Results:</u> Over the past decade, improvements instituted by the NMC have reduced nitrogen flowing into the bay by more than 400 tons. During this same time period, the region’s population grew by more than a million people. This was accomplished through the completion of more than 250 projects. These included sweeping streets to constructing regional stormwater treatment facilities to restoring wetlands. Consequently, all four bay segments in 2012 met chlorophyll-a thresholds accepted by the Florida DEP to comply with the EPA TMDL and estuarine numeric nutrient criteria. Average 2012 chlorophyll-a concentrations improved from 2011 levels. Seagrasses continues to respond positively to the improved water quality conditions within Tampa Bay. Aerial photographs taken in January 2012 show that baywide seagrass coverage increased by 5%.	
Saginaw Bay/Lake Huron	Encompassing over 8,700 square miles, 1.4 million people, and 22 counties. The largest and one of the most diverse watersheds in Michigan.	The Saginaw Bay Watershed has experienced a variety of environmental impacts dating back to1850. As early as the 1930s fish kills were reported	The 1987 amendments to the Great Lakes Water Quality Agreement identified regions of significant environmental degradation throughout the Great Lakes, known as Areas of Concern, or AOCs. The Saginaw River and Bay is one of the remaining AOCs and one of 14 in Michigan that still have not attained WQ objectives.	Federal funding leads investment (Great Lakes Initiative). Well-organized governance

	The Saginaw Bay Watershed has more than 175 inland lakes and ~7,000 miles of rivers and streams, and drains ~15 percent of the state. Land use is diverse, ranging from undisturbed natural areas to intensive agricultural and heavily industrialized urban settings. Most of the industrial activity is associated with the four major urban centers: Bay City, Flint, Midland, and Saginaw.	almost annually on the Saginaw and Cass Rivers due to discharges from beet processing facilities. By 1965, levels of dissolved oxygen had fallen so low in the Saginaw River that it was uninhabitable for nearly all fish species. In the 1970s, DDT and PCBs were accumulating in fish at high enough levels that they were not safe to eat. By the 1970s, environmental quality had declined to such an extent that there was a call to action. In the following decades some of the most significant state, national, and international programs and laws were enacted to protect and restore environmental quality.	Since the region was originally designated as an AOC in 1987,environmental conditions have improved through planning, targeted restorative actions, and stakeholder involvement. In the Great Lakes Basin the benefits of, and responsibilities for Great Lakes resources are shared among eight American states and two Canadian provinces. Even without considering the Canadian involvement, the management and protection of the riparian shore lands, wetlands, bottom lands, fisheries, wildlife, and water resources of the Great Lakes and their tributaries depend upon a complex nested jurisdictional system involving numerous federal agencies, the eight states, and literally thousands of local governments. 1988 – A key report is produced: the Remedial Action Plan (RAP) for the Saginaw River and Saginaw Bay Area of Concern.1 This report was jointly prepared by a number of groups including the Michigan Department of Natural Resources, the East Central Michigan Planning & Development Regional Commission, the National Wildlife Federation, the Saginaw Basin Natural Resource Committee, and a technical work group. This first RAP goes into specific detail about the causes of the use impairments and is updated periodically by the Michigan Department of Environmental Quality. 2000 - Stakeholders from across the Watershed came together to develop specific and measurable restoration targets for each of the beneficial use	structure is essential. Acceptance of adaptive management approach is key. Staged/phased implementation reduces risk of ineffective investments. Unknowns due to the complexities of the fate and transport of nutrients can affect progress towards water quality improvements.

			impairments in the foundational Measures of Success: Addressing Environmental Impairments in the Saginaw River and Saginaw Bay report that was prepared by Public Sector Consultants, and was a key planning tool to advance restoration. <u>Results:</u> While environmental conditions have improved in the Saginaw Bay Watershed, there are ten remaining beneficial use impairments for the AOC that require continued efforts in order to plan, implement, and monitor progress. The investment of the federal government through the Great Lakes Restoration Initiative has continued to support local efforts to restore the Saginaw Bay.	
Neuse River/Pamlico Sound	▪	▪	▪	▪
Truckee River Watershed	The Truckee River is unique in that it is one of the few lake-to-lake rivers in the world. It flows from the outlet of Lake Tahoe (California) and terminates in Pyramid Lake, a large lake with no outlet, located on Pyramid Lake	Sources: Sewage treatment plants, agricultural runoff, urban stormwater runoff, and atmospheric deposition. The river has been under increasing pressure to support competing uses of municipal and industrial water supply,	In response to these problems, the Nevada Division of Environmental Protection (NDEP) developed the Truckee River Strategy, a plan to coordinate the activities of agencies involved in restoring the quality of the Truckee River and Pyramid Lake. The strategy includes timetables for numerous nonpoint source control projects, such as stormwater permitting, wetlands treatment systems, pasture improvements, riparian restoration, and landowner education. 1994 -As part of the strategy, EPA Region IX approved the Truckee River TMDLs for TN and TDS. The TMDLs include load allocations for nonpoint and background sources and one waste load allocation for the major point source discharger in the basin, the Truckee Meadows Wastewater Reclamation Facility	Well-organized governance structure is essential. Acceptance of adaptive management approach is key. Staged/phased implementation reduces risk of ineffective investments.

	Paiute Tribe (PLPT) reservation land. The Truckee River watershed is ~3,200 sq. mi. and includes varied terrain such as mountainous forest, developed urban area, pastureland and arid scrubland. Approximately 200,000 people live in the Truckee basin, which includes the urban areas of Reno and Sparks and several smaller agricultural communities. The major crops are alfalfa, cantaloupe, onions, and garlic.	agriculture, and recreation. Also, there is a need to protect the endangered species of Lahontan Cutthroat Trout (LCT) and Cui-ui, which reside in the Truckee River and Pyramid Lake. Heavy growths of aquatic weeds and benthic algae, caused by high nutrient loads and low flows, have plagued the river. Plant respiration and decaying biomass have decreased dissolved oxygen (DO) levels in the river. The low levels of DO have, in turn, impaired the river's ability to support populations the Lahontan cutthroat trout, a threatened species, and cui-ui (kwee-wee), a national endangered species.	(TMWRF). 1998 – Present - Regional stakeholders organized to identify, evaluate and implement watershed management alternatives. The goal was to maximize beneficial uses while improving river water quality and accommodating for planned growth in the Truckee River watershed. A regional watershed plan was developed and instituted. A Coordinated Monitoring Program was developed and executed involving federal, state, and local cities, county and resource agencies. A pollutant-trading program was instituted, and several trades were completed. Innovative permitting and intervention strategies include: seasonal TMDLs, aggressive water conservation, stream bank restoration, and others. Results – The Truckee River metric of the greatest concern in DO, which is tracked at various river stations from the Sierra's to Pyramid Lake. The results of the monitoring program show that attainability with the DO standard(s) is highly dependent on river flow and long-term rainfall conditions (banked storage and groundwater recharge effects). Nevertheless, the TMDL program has resulted in significant improvements in DO, and in sustaining the Lahontan and cui-ui populations.	Unknowns due to the complexities of the fate and transport of nutrients can affect progress towards water quality improvements. Presence of a TMDL helps affect a successful outcome. Efficiencies can be achieved through coordinated monitoring, tracking and accounting program.
San Francisco Bay	Largest watershed in western North America; 60,000 square miles; and drains 40 percent of California.	Sources: Sewage treatment plants, combined sewer overflows, agricultural runoff, urban stormwater runoff, and	SF Regional Water Quality Control Board established a Watershed permit in April 2014.	TBD

	Two-thirds of the State's salmon pass through the Bay, a commercial fishery continues for Pacific herring, and nearly half of Pacific coast waterfowl and shorebirds depend upon the Bay's mudflats for sustenance during their migrations. Roughly half of California's surface water supply comes from the Bay watershed. Half of that is diverted for use by farms, factories or households. This includes water supply for over 18 million people, and over 4 million acres of agricultural land.	atmospheric deposition.		



BACWA BAY AREA CLEAN WATER AGENCIES

Nutrient Watershed Case Studies Symposium

OCTOBER 6, 2014 | 8:00 a.m. to 4:00 p.m.

Save the Date

Who is BACWA?

BACWA is a local government agency created by a joint-powers agreement in 1984. Our membership includes local clean water agencies that provide sanitary sewer services to the more than seven million people living in the nine county San Francisco (SF) Bay Area. BACWA was founded, and continues, to assist agencies in carrying out mutually beneficial projects, and to facilitate the development of scientific, economic and other information about the San Francisco Bay environment and the agencies that work to protect it and public health.

Why is this Symposium Important?

Potential nutrient impacts to San Francisco Bay (Bay) are becoming of increasing concern. The Regional Water Board has issued a Nutrient Watershed Permit (R2-2014-0014), which took effect July 1, 2014. This is the first phase of what is anticipated to be a multi-phased permit.

This initial Order sets forth a regional framework to facilitate collaboration on studies that will inform future management decisions and regulatory strategies. In the 2019 permit reissuance, the Regional Water Board anticipates considering establishment of performance-based effluent limits for nutrients and may require implementation of treatment optimization. The 2019 permit reissuance will also continue efforts to evaluate control measure scenarios as informed by load response modeling.

In the 2024 and 2029 permit reissuances, the Regional Water Board anticipates using the information garnered from studies conducted under earlier orders to require implementation of additional management actions, as needed.

Who Should Attend?

This Symposium is applicable to all BACWA member agencies, regulatory and resource agencies (e.g. RWQCB and EPA staff), environmental consulting firms, university and research organizations, and environmental non-governmental organizations (NGOs).

Please RSVP to Lorien Fono, lfono@pmengineers.com no later than 5 pm Monday, September 15, 2014.

Symposium Overview and Program

While local efforts are beginning to significantly advance the understanding of nutrients and the Bay, there have been a number of significant case studies related to nutrient impacts nationwide with a relatively long history.

The symposium will highlight nutrient issues in other estuaries and water bodies across the nation, and examine where they have been successful, and where things could have been done differently. The speakers represent a wide array of stakeholders presenting a balanced view of the efforts undertaken for those nutrient case studies facing similar issues as locally here in San Francisco.

Symposium participants include nationally recognized speakers from the Chesapeake Bay, Long Island Sound, and Tampa Bay watersheds, among others.

The format includes presentations and open panel discussions allowing interactive participation.

When, Where, Cost

When: The Symposium will be held Monday October 6, 2014, from 8 a.m. to 4 p.m.

Where: The Auditorium in the Elihu M. Harris State Office Building at 1515 Clay Street, Oakland, CA. 94612, (where the offices of the San Francisco Regional Water Quality Control Board are located). Public parking is available in the parking garage directly across Clay Street from the building.

BART Directions: If you are taking BART, get off at the 12th Street-City Center station and walk through the mall of shops until you hit Clay Street. Turn right at the Federal Building and cross the street. The State Building will be right in front of you.

Cost: The cost for the Symposium is $20 per person. Continental breakfast will be provided from 8 a.m. to 8:30 a.m. Participants will have a one-hour break for lunch on their own.

Agenda
Nutrient Workgroup Update

Friday, June 27, 2014
2:00 p.m. to 3:00 p.m.
Call In: (712) 432-1212
Meeting ID: 637-929-852

1. Roll Call

2. Summary of June 13, 2014 Stakeholder Meeting (Larson)

3. Draft Water Board Workplan (Grovhoug)

   - Review redline version
   - Discuss process to finalize comments
     - Workgroup member comments to Adam by 6/30
     - Revised draft incorporating all comments to workgroup by 7/07
     - Last round of workgroup comments on revised draft: To Adam by 7/14
     - Final comments to Brock by 7/18

4. Science Panel (All)
   - Discuss candidates
   - Discuss process to finalize recommendations for panel by July 18

5. Selection of POTW Stakeholder Representative & Alternate (All)

6. Briefing of other regulated community stakeholders on CASA Alternative (Grovhoug)
   - Discuss schedule, invitees, agenda

7. Adjourn

PROPOSED WORKPLAN FOR DEVELOPMENT OF A NUTRIENT MANAGEMENT STRATEGY

STEVE CAMACHO, LEAD STAFF
JACOB IVERSEN, STAFF
ZANE POULSON, PROGRAM MANAGER
STATE WATER RESOURCE CONTROL BOARD, BASIN PLANNING AND STANDARDS UNIT

Contents

1.0 Introduction and Purpose of Document

The California State Water Resources Control Board (State Water Board) has initiated the process to address nutrient objectives and a program of implementation for the state's surface waters. Staff envisions that the objectives and program of implementation would be adopted as amendments to the Inland Surface Water, Enclosed Bays and Estuaries Plan. The nutrient amendments could include objectives and implementation strategies to help improve water quality in aquatic habitats by identifying endpoints that describe conditions necessary to protect beneficial uses. Creating nutrient amendments for the state will assist in supporting the Water Boards' Mission to preserve, enhance and restore the quality of California's water resources, and ensure their proper allocation and efficient use for the benefit of present and future generations.

The purpose of this document is to: 1) lay out an overarching strategy that will govern the management of nutrients in freshwater and estuarine habitats to provide reasonable protection of beneficial uses of these waterbodies and 2) describe the process and technical work elements that the State Water Board will pursue to collect the information it requires to develop an effective approach for implementation of narrative objectives, focusing on wadeable streams in the first phase.

2.0 Previous Work on Nutrient Objectives

In 1999 the US EPA Region 9 and the State Water Resources Control Board (SWRCB) began development of nutrient objectives, focused on streams and lakes. Pilot studies were conducted to analyze existing data and explore alternative approaches. Based on these pilot studies, SWRCB staff have favored an approach to establish nutrient objectives known as the Nutrient Numeric Endpoint (NNE) framework. The NNE is comprised of two components. First, it would establish a suite of numeric endpoints based on the ecological response of an aquatic waterbody to nutrient over-enrichment (eutrophication, e.g., algal biomass, dissolved oxygen). Second, models would be used to link the ecological response endpoints to site-specific numeric nutrient targets and other potential management controls. This technical information would be used in the development of one or more approaches to implementation of nutrient narrative objectives to meet the overarching goals of the policy development effort.

A conceptual framework describing the NNE framework and review of applicable indicators was completed (Tetra Tech 2006) and recommended regulatory endpoints were proposed for streams and lakes (Tetra Tech 2006, Appendix 1). Spreadsheet models were developed for streams and lakes to serve as scoping tools. It was envisioned that the NNE response endpoints and models would serve as *guidance* to translate *narrative* water quality objectives for nutrients and biostimulatory substances and/or conditions. Draft scoping models were previously developed for lakes and streams by Tetra Tech (2006). For streams, two types of models were included in the Benthic Spreadsheet Model: 1) statistical models based on empirical field data developed by Dodds et al. (1998) for temperate streams in North America and 2) simplified versions of the QUAL2K, an EPA-supported steady state mechanistic model. The standard and revised QUAL2K models in the Benthic Spreadsheet Tool were optimized to the Dodds empirical relationship. For lakes, a scoping model was developed based on a simplified version of the BATHTUB model, a model developed and supported by the Army Corps of Engineers for uses in US lakes and reservoirs. At the time these models were developed, model optimization occurred without the benefit of data from California waterbodies. A substantial dataset on algal and nutrient levels in wadeable streams is now available for many parts of the State. The SWRCB is interested in utilizing these wadeable stream data, if possible, to make additional refinements to the response indicator numeric endpoints and in the associated modeling effort.

Since publication of the conceptual framework and recommended endpoints for streams and lakes, the SWRCB and EPA Region 9 have also funded updates to the science supporting the freshwater NNE (Tetra Tech 2006). The SWRCB has also funded science to support the development of regulatory endpoints for California estuaries (McLaughlin and Sutula 2008, Sutula et al. 2011), including San Francisco Bay (McKee et al. 2011, SFRWQCB 2012). The appropriate use of this new information will be explored in the current nutrient policy development effort.

3.0 Guiding Principles

The overarching goal is to develop a regulatory framework that will lead to effective nutrient management decisions and actions to achieve reasonable protection of beneficial uses. The state's effort to create an effective nutrient regulatory framework has several fundamental guiding principles. These include:

1) **The state should develop a policy which encourages effective management strategies that address nutrient pollution and biostimulatory substances and/or conditions (Figure 1).** Nutrient pollution can result in the overproduction of primary producers (e.g. algae and macrophytes) and heterotrophs (e.g. bacteria). This organic matter can have adverse consequences to aquatic life through changes in water and sediment quality as well as changes to the food web. Environmental variables such as hydrology, available light, benthic grazers, temperature, etc. can modify the ecosystem response to nutrients. Anthropogenic activities that alter these environmental variables can in some cases lead to biostimulatory conditions (lead to increased eutrophication) even under low nutrient conditions. Further, nutrient controls may have adverse impacts on beneficial uses. Therefore a policy is needed that addresses nutrient pollution, biostimulatory substances, and/or other conditions (see Figure 1) and provides a framework that creates incentives for effective waterbody/watershed management actions.

2) **The state should develop alternative approaches for implementation of narrative nutrient objectives.** The addition of implementation guidance for narrative objectives provides two important benefits: 1) a framework for consistent quantitative assessments and interpretation; and 2) the potential to trigger enforcement and remedial actions that narrative objectives do not. However, implementation guidance should be linked to reasonable protection of beneficial uses and must be robust to allow different approaches for different types of systems, including unaltered, moderately, and even highly modified waterbodies.

3) **Implementation guidance should have a strong linkage to beneficial use protection**. Depending on waterbody and hydrologic conditions, discharges of nutrients may result in a range of adverse to beneficial impacts to beneficial uses, and these impacts may vary as ecological and environmental conditions change downstream of a nutrient source. Indicators of these ecological responses may provide a more direct link to beneficial uses and are a function of various conditions, including nutrient concentrations. Therefore, the state is considering the option that nutrient narrative objectives may be implemented using a set of numeric endpoints for the biological, physical, and chemical indicators associated with the specific beneficial uses of the waterbody. Models will be needed to establish whether management actions can effectively achieve these endpoints and various conditions, including, but not limited to, nutrient concentrations.

4) **The state should have implementation guidance for all waterbody types.** The State Water Board intends to develop guidance that translates the narrative nutrient objective for all waterbody types.

5) **There should be statewide consistency with regional flexibility**. Statewide consistency is an important component of equity among stakeholders and is therefore crucial for statewide policy development. However, it is well recognized that the state has many different types of aquatic ecosystems, with varying biological characteristics. Therefore, a defensible statewide program must accommodate the unique qualities of different water bodies and ecosystems. Furthermore, our knowledge of the ecology of our waterbodies varies throughout the state, so the refinement of guidance will likely proceed in different ways and at different rates in different regions.

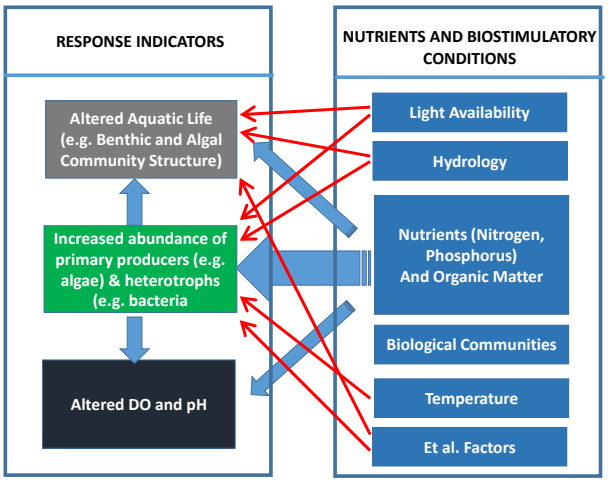


Figure 1. Conceptual model of symptoms (response indicators; left-hand box) of eutrophication and other adverse effects of nutrient pollution and biostimulatory conditions (right hand box).

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Commented [AL1]: Comment: The conceptual model shown in this figure should reflect the multiplicity of conditions (blue boxes) that influence the response indicators; we added a few more arrows to suggest that this figure should provide a more comprehensive visual map of potential management options that may be developed as part of this policy.

4.0 Strategy to Develop Guidance to Interpret Narrative Nutrient Objectives

California is a large state and has a tremendous number and diversity of water bodies. It is not possible to develop guidance for all water body types in the near-term; it will be necessary to prioritize the adoption for specific waterbody types. Three phases are envisioned for development and adoption of the nutrient policy amendments. The bulk of previous work has been focused on freshwater habitats, specifically wadeable streams. For this reason, State Water Board staff's near-term strategy is to complete development and adoption of nutrient policy amendments to address the following elements by January 2016, hereto referred to as "Phase I":

1) Description of the options and recommended conceptual approach to support the interpretation of narrative guidance applicable to all waterbodies and

2) Specific guidance for wadeable streams.

Commented [AL2]: Given the relatively good quality of wadeable streams, as detailed in the SWAMP October 2013 report "Condition of California Perennial Wadeable Streams Based on Algal Indicators", it is not clear that wadeable streams should be the highest priority. This report indicated that over 95% of perennial, wadeable stream kilometers in California were estimated to fall below the 100 mg/m2 threshold in the 2006 Tetra Tech/EPA document.

Work to complete numeric guidance for lakes will be completed pending additional technical work (Phase 2). Technical work supporting development of numeric guidance for California estuaries and non-wadeable rivers will be completed in Phase 3. Strategies and technical workplans are available describing nutrient management strategy and policy development for San Francisco Bay (SFRWQCB 2012) and the rest of the State's estuaries (McLaughlin and Sutula 2008). A workplan governing science to support nutrient policy in the Delta is under development (Chris Foe, Central Valley Regional Water Quality Control Board, personal communication). These nutrient policy efforts for the San Francisco Bay and waterbodies within the legal boundaries of the Sacramento-San Joaquin Delta are not addressed in this workplan.

Table 1. Approximate schedule for completion of science, amendments development and adoption of guidance supporting nutrient objective implementation for California waterbodies.

Type	Science	Regulatory Amendments	
		Development	Adoption
Conceptual Approach[1]	2014	2015	2017
Wadeable streams	2014	2015	2017
Lakes	2014-2017	2017	2018
Estuaries[2] and Non-wadeable streams/rivers	2014-2018	2018	2020

Commented [AL3]: Given that nutrient objectives for the Bay and Delta will be developed in a separate process, we have deleted them from this table to avoid any confusion or misinterpretation.

However, if they are to remain as part of the table, it would be important to clarify that these are inddeed separate and distinct processes.

5.0 General Approach for Phase I

There are six basic tasks that have been identified for nutrient objective development for Phase I (Table 2). Some of the tasks are technical and some are not, but taken all together they represent the major milestones necessary for a scientifically-defensible and equitable program.

Table 2. Summary of tasks and description to complete first phase of nutrient policy development.

Number	Task	Description
1	Conceptual Approach, Waterbody Definition and Classification	Provides an overview of conceptual approaches to nutrient objectives, rationale for preferred approach, provides definitions and classification of waterbodies.
2	Conduct and Synthesize Science to Support Numeric Guidance in Wadeable Streams	Science to support policy decisions on implementation guidance (i.e. selection of abiotic and/or ecological response indicators, numeric endpoints, and use of models to establish effective nutrient management in wadeable streams).
3	Implementation Plan Development	Defines how nutrient objectives will be achieved and how nutrient policy will be used in regulatory programs such as 303(d) listing, NPDES compliance, 401 certification, etc.
4	Rulemaking	The legislatively defined public process of developing, adopting, and implementing water quality objectives and policy
5	Outreach	Actively reaching out to technical, regulatory, regulated, and non-governmental stakeholders to ensure that their ideas, suggestions, and concerns are fully considered
6	Training, Standardization, and Information Management	Provides sufficient method standardization, data transfer formats, documentation and education for widespread, consistent, effective implementation.

[1] Applicable to all waterbodies

[2] Excluding the San Francisco Bay and Sacramento-San Joaquin Delta

6 Specific Approach for Phase I

6.1 Conceptual Approach to Nutrient Objectives, Waterbody Definition and Classification (Task 1)

A strong technical foundation to support policy decisions regarding nutrient objectives has already been drafted (Tetra Tech 2006). This documentation will be updated to describe 1) the environmental problems that may be associated with nutrient pollution and biostimulatory substances that the policy could be crafted to address, 2) a definition and classification of the targeted waterbodies that could be covered under this policy, and 3) description of alternative regulatory approaches and the advantages and disadvantages of the alternatives under consideration by the State Water Board for implementing nutrient objectives. The product of this task will be a technical report.

Commented [AL4]: It is not clear what is intended here. Is the idea that some subset of waterbodies would be the focus of the policy—e.g. those where a beneficial use is advsersly impacted? Or is this intended to link the policy to waters with particular designated uses in the Basin Plans?

Product: Technical report and related appendices.

6.2 Conduct and Synthesize Science to Support Implementation Guidance for Wadeable Streams (Task 2)

The primary goal of this task is to conduct analyses of existing data and synthesize science supporting the development of implementation guidance for California wadeable streams. Documentation will be expanded to: 1) evaluate a wide range of candidate abiotic and ecological response indicators that represent wadeable stream response to nutrient pollution, 2) conduct analyses and summarize published information on candidate indicators of effects on beneficial uses (Comment: The term "beneficial uses" should signify the same concept of beneficial use as in the Basin Plans.) and articulate how these thresholds link to a gradient of biological condition, 3) summarize the distribution of these indicators in various water body types, including minimally disturbed "reference" sites as well as other ambient sites across the State of California, 4) develop models using available data to support the linkage of response indicators to nutrient management and other watershed management options, and 5) identify key technical considerations for how the above technical information may be used in implementation.

At least three existing or completed studies will contribute to this task. (First, the SWAMP program has produced a synthesis of algal abundance indicators in reference and ambient perennial wadeable streams (Fetscher et al. 2013). Second, EPA-ORD has conducted analysis of existing California perennial wadeable stream data to document statistical relationships between nutrients, algal biomass, algal and benthic macroinvertebrate species composition (Fetscher et al., 2014). Third, a sub-set of the analyses conducted by EPA-ORD will be repeated for southern California only, in order to determine whether numeric endpoints vary by ecoregion.

Commented [AL5]: Which of these three studies best describes the linkage of indicators to adverse effect on beneficial uses, per item 2 in the paragraph above?

Commented [AL6]: Note: Analyses such as these should recognize that there is a difference between the WARM and COLD aquatic life uses, and consider them independently.

A detailed technical workplan will propose additional analyses of existing data and synthesis to be conducted in order to accomplish this task. Advisory groups will have an opportunity to comment on this technical work plan.

Product: 1) Technical workplan, and 2) Technical reports and related appendices.

6.3 Implementation Plan Development (Task 3)

The goal of this task is to define how implementation guidance can be used in regulatory programs such as 303(d) listing, TMDLs, NPDES permits, NPS, etc. The linkage between guidance and compliance should be abundantly clear, convincing, and defensible. The State currently has specific guidance for how multiple site/event data should be compiled to make regulatory assessments. For example, there is an implementation policy for the 303(d) listing/delisting program. However, this guidance is based largely on

existing chemical objectives and there is general agreement that the listing policy needs to be updated to work with sediment quality and biological objectives. This task necessitates working with stakeholders, regulators, and external Science Panel members to solicit their feedback on specific elements of the implementation guidance for narrative nutrient objectives which may utilize response indicators for assessment. Topics such as how many sites are needed per waterbody, how many sample events should be assessed over what period of time, the precision or error inherent in the stressor response models, what the attainable endpoints are for specific water bodies, and the nature of the impact on beneficial uses should all be considered in the implementation guidance.

Commented [AL7]: The question of "how large the magnitude of impairment" can be acceptable should require some scientific input, though this Task 3 appears to be mainly regulatory. Different degrees of degradation may be acceptable depending on the nature of the beneficial uses for the specific waterbody, therefore some of this discussion as it applies to wadeable streams should take place at the "conduct and synthesize science" stage prior to entering Task 3.

Product: Implementation guidance to accompany the draft nutrient amendments that includes draft language for 303(d) listing, NPDES permit compliance, NPS, and TMDLs.

6.4 Rulemaking (Task 4)

The goal of this task is to follow the legislatively defined public process of developing, adopting, and implementing objectives as described in the Water code. We contemplate documents such as a detailed Staff Report and proposed amendments to the State Water Board's Inland Surface Waters Plan. This task will also include public dissemination, review, and response process such as public workshops, response to comments, informational meeting presentations, State Water Board briefings, and a California Environmental Quality Assessment (CEQA) document, or equivalent, including a discussion of the factors that must be considered when establishing water quality objectives, the program of implementation for attainment of objectives, and various other considerations.

Product: Proposed amendment language, staff report and CEQA documentation with a full and complete administrative record for state and federal approval.

6.5 Outreach (Task 5)

Outreach will be conducted in accordance with the State Water Boards Public Participation Plan. The goal of this task is to actively reach out to technical, regulatory, regulated, and nongovernmental stakeholders to ensure that their ideas, suggestions, and concerns are fully considered. This task covers three important areas. First, stakeholders need to know about the development of any new objective or policy. Transparency is imperative for a successful process. Second, it is important that the Water Boards give all parties a reasonable and fair opportunity to voice their opinions about the relative merits and preferences regarding alternative approach(es). Third, the technical aspects of the objectives should receive an independent and rigorous technical review to ensure scientific integrity. The intent is that this technical review be ongoing through the program and will not replace the final peer review during amendment development. This task will require the creation of three different committees. These include: 1) Stakeholder Advisory Group: the primary committee that responds to early ideas and concepts, provides recommendations on project development, technical workplan and scope of scientific work, policy implementation, and serves as one of the vehicles for public outreach. Anyone can join the group, but representatives will be chosen to represent different sectors of the community such as regulated dischargers (i.e., wastewater, storm water, industrial, etc.), non-governmental organizations or environmental advocacy groups, other vested parties as needed and interested. 2) Regulatory Advisory Group: the primary committee that responds to regulatory specific issues such as elements of the Implementation Plan development including compliance/enforcement. Members may include staff from any of the nine Regional Water Boards, staff from each of the major programs at the State Water Board, other state resource agencies such as Fish and Wildlife, and federal agencies such as the USEPA and/or Fish and Wildlife Service. 3) Science Panel: comprised of independent science experts charged with review

Commented [AL8]: It is important that the Stakeholder Advisory Group be given an opportunity to provide meaningful input on both regulatory and scientific issues.

of all technical aspects of the policy development. The process, desired attributes and candidates for the Panel will be vetted by the two advisory groups. This three-committee system, if started early in the process, will provide tremendous value in terms of communication and policy-building, creating fair and equitable approaches and policy alternatives, and minimizing potential road blocks at the end of the policy development process.

A regulatory advisory group for nutrient policy and objectives (the State and Regional Technical Advisory Group or STRTAG, now renamed as the Regulatory Advisory Group (RAG)) exists. A similar three-committee system has already been established for the creation of estuarine nutrient objectives. The state will consider how to expand or reform these committees to achieve the intended goal.

Products: 1) A Stakeholder Management Plan prepared in accordance with State Water Board public participation guidelines, 2) Creation/reformation and facilitation of three Advisory Groups; Scientific, Stakeholder, and Regulatory, and 3) Meeting agendas, presentation materials and reports related to the convening of these groups.

6.6 Training, Standardization, and Information Management (Task 6)

Once nutrient policy and narrative objective implementation guidance are promulgated by the state, there must be clear and concise guidance to stakeholders on how to collect data with prescribed levels of quality assurance, how to interpret data, how the data will be used in the regulatory framework, and what to do if one fails to meet requirements. To ensure narrative nutrient objectives are applied appropriately, standardization of monitoring must be achieved. This task will require development of Methods Manuals, Standard Operating Procedures, and Quality Assurance Plans as needed to ensure that this standardization occurs. Also needed are standardized data transfer formats for incorporation of nutrient assessment data into SWAMP.

Significant progress in the area of methods standardization for bioassessment of wadeable streams has already been achieved, with a direct benefit for application of nutrient objectives in wadeable streams. Methods Manuals for stream algae and physical habitat measurements and a Quality Assurance Project Plan for chemistry sampling currently exist (http://swamp.mpsl.mlml.calstate.edu/resources-and-downloads). A series of training workshops have been conducted on the SWAMP Stream Algal SOP and should be expanded. As with Bio-objectives, the State Water Board has a Training Academy that could serve as the platform for implementing the training.

Products: Methods Manuals/SOPs, standardized data transfer formats, training curriculum, training events for wadeable stream sampling in various regions of the state.

7.0 Schedule

Table 2. Approximate schedule for completion of Phase I tasks.

Number	Task	Description	Targeted Date for Completion
1	Conceptual Approach, Waterbody Definition and Classification	Provides an overview of conceptual approaches to nutrient policy and objectives, rationale for preferred approach, provides definitions and classification of waterbodies.	2015
2	Conduct and Synthesize Science to Support Nutrient Objectives	Science to support policy decisions on selection of abiotic and/or ecological response indicators, numeric endpoints, and use of models to establish linkage to nutrient management.	2015
3	Implementation Plan Development	Defines how nutrient narrative objectives will be achieved and will be used in regulatory programs such as 303(d) listing, NPDES compliance, 401 certification, etc.	Staff report by 2016
4	Rulemaking	The legislatively defined public process of developing, adopting, and implementing objectives	2017
5	Outreach	Actively reaching out to technical, regulatory, regulated, and non-governmental stakeholders to ensure that their ideas, suggestions, and concerns are fully considered	Ongoing throughout 3 yr period
6	Training, Standardization, and Information Management	Provides sufficient method standardization, documentation, standard data transfer formats, and education for widespread, consistent, effective implementation.	2016

8.0 References

Fetscher AE, MA Sutula, LB Busse, ED Stein. 2013. Condition of California perennial wadeable streams based on algal indicators. 2013. Technical Report 0781. Southern California Coastal Water Research Project. Costa Mesa, CA. www.sccwrp.org

Fetscher AE, MA Sutula, A Sengupta, N. Detebeck. 2014. Improving Tools to Link Nutrients to Adverse Effects on Stream Ecosystem Services in California. EPA ORD Draft Technical Report. In Review

McKee L., M. Sutula, A. Gilbreath, J Beagle, D Gluchowski, 2011 Numeric Nutrient Endpoint Development for San Francisco Bay Estuary: Literature Review and Data Gaps Analysis. Technical Report 644. Southern California Coastal Water Research Project. Costa Mesa, CA.

McLaughlin K. and Sutula M. 2008. Developing nutrient numeric endpoints and TMDL tools for California estuaries: An implementation plan. Southern California Coastal Water Research Project and TetraTech Inc., Costa Mesa CA. SCCWRP Technical Report No. 540, www.scccwrp.org

SFRWQCB 2012. San Francisco Bay Nutrient Management Strategy. San Francisco Regional Water Quality Control Board http://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/planningtmdls/amendments/estuarineNNE/Nutrient_Strategy%20November%202012.pdf

Sutula M. 2011. Review of Indicators for Development of Nutrient Numeric Endpoints in California Estuaries. SCCWRP Technical Report No. 646. June 2011.

Tetra Tech. 2006. Technical Approach to Develop Nutrient Numeric Endpoints for California. Tetra Tech, Inc. http://rd.tetratech.com/epa/Documents/CA_NNE_July_Final.pdf

US EPA 2010. Using Stressor-response Relationships to Derive Numeric Nutrient Criteria. EPA-820-S-10-001.

Area	Name	Rank (1 High to 4 lowest)
Aquatic ecology, nutrient bio-geochemistry and management of eutrophication in ESTUARIES	Walter Boynton, Professor University of Maryland	
	Ivan Valiela, Professor, Boston University	
	Robert Twilley, Professor, Louisiana State University	
	Robert Diaz, Professor, Virginia Institute of Marine Science	
Aquatic ecology, nutrient bio-geochemistry and management of eutrophication in FRESHWATER HABITATS	Walter Dodd, Professor, Kansas State University	
	Judith Meyer, Professor, University of Georgia	
	Robert (Jan) Stevenson, Professor, Michigan State University	
	Stephen Carpenter, Professor, University of Wisconsin	
	Michael Brett, University of Washington	
Water quality computer simulation modeling, statistical stress-response models	Ken Reckhow, Professor Emeritus, Duke University	
	Dominic DiToro, Professor, University of Delaware	
	Stephen Chapra, Professor, Tufts University	
	Don Scavia, Professor, University of Michigan	
	Richard Batiuk, Assistant Director, Chesapeake Bay Program	
	Holly Greening, Executive Director,	

Implementation of Nutrient Management Measures	Tampa Bay Estuary Program	
	Paul Stacey, Connecticut Department of Environmental Protection	
	Donald Boesch, President, University of Maryland Center for Environmental Science	
	David Stensel, University of Washington, WERF Nutrient Challenge Program	

Links
http://www.umces.edu/cbl/people/wboynton http://www.gonzo.cbl.umces.edu/
http://people.bu.edu/valiela/index.html
http://www.sce.lsu.edu/index.php/people1/faculty/robert-r-twilley/
http://www.vims.edu/people/diaz_rj/
http://www.k-state.edu/doddslab/Dodds%20CV.pdf
http://www.ecology.uga.edu/facultyMember.php?Meyer-45/
http://scholars.opb.msu.edu/expert.asp?n=Robert+Jan+Stevenson&u_id=2387&o_id=65
http://limnology.wisc.edu/personnel/carpenter/
See biosketch and links in 07/02/14 email
http://fds.duke.edu/db/Nicholas/esp/faculty/reckhow
http://www.ce.udel.edu/faculty/ditoro/
http://engineering.tufts.edu/cee/people/chapra/
http://graham.umich.edu/scavia/
Institution:
http://www.epa.gov/chesapeakebaytmdl/
Institution

http://www.tbep.org/
See biosketch (appendix 1)
http://www.umces.edu/people/president
See biosketch and links in 07/02/14 email

July 10, 2014

J.B. Neethling, Ph.D., P.E.
Vice President and Wastewater Treatment Effluent Management Director
HDR
2365 Iron Point Road, Suite 300
Folsom, CA, 95630-8709

After reviewing several high-quality proposals, we are pleased to inform you that your team has been placed on the shortlist for the Bay Area Clean Water Agencies Nutrient Optimization and Facility Upgrade Study. We will be conducting interviews to make our final team selection. Your team is invited to an interview on August 7 2014, location and time of interview will be forthcoming. Please bring no more than five team members to the interview.

At the interview, your team will have 20 minutes to make a presentation, followed by a 40 minute question and answer session. Approximately the first 10 minutes of the presentation should focus on your project approach, the next five minutes should describe your team's experience, and the final five minutes should define how your team proposes to work together and with BACWA to complete the project. Your team will not receive the interview questions prior to the interview.

Final team selection will be based on the following criteria:

Criterion	**Points**
Project Approach	35
Team Experience	20
Project Manager	35
Firm Experience	10

All questions and requests for information regarding the interview or the Project should be directed in writing, via email, to David R. Williams at dwilliams@bacwa.org. Questions should be submitted by July 18, 2014 and answers will be distributed to each of the proposing teams by July 24, 2014.

Sincerely,

David R. Williams

David R. Williams
Executive Director
Bay Area Clean Water Agencies

Cc: Holly Kennedy

Sherry Hull

From: Dave Williams
Sent: Tuesday, July 15, 2014 3:12 PM
To: Sherry Hull
Subject: FW: Follow-up to 2nd Steering Committee Meeting
Attachments: Meeting Summary - NMS Steering Committee Meeting - June 25 2014 - Draft Final.docx; Attachment B - Decisions 2nd SC Meeting Jun 25 2014.xlsx; ATTACHMENT C - Parking Lot Items 2nd SC meeting.xlsx; ATTACHMENT D - Summary of Action Items 1st and 2nd SC meetings.xlsx; ATTACHMENT F - Voting at 2nd SC meeting.xlsx

Please include the email and the attachments under item #10.c.i

Also can you indicate that all of these are **draft** documents.

David R. Williams
Executive Director
Bay Area Clean Water Agencies (BACWA)
Cell: 925-765-9616
Email: dwilliams@bacwa.org

From: Dave Williams
Sent: Friday, June 27, 2014 9:28 PM
To: Ceppos, David M; 'Mumley, Thomas@Waterboards'; David Senn; 'Naomi.Feger@waterboards.ca.gov'
Subject: Follow-up to 2nd Steering Committee Meeting

Hi folks,

Attached are the minutes to the second SC meeting for your review. As I was preparing the minutes it seemed that having some attachments was warranted. The attachment mentioned in the Minutes include the following:

A: Attendees (you will need to attach these as I do not have them, also I forgot to sign in)

B: Decisions Recorded (I thought it would be worthwhile to start recording the decisions that are made at the meetings)

C: Parking Lot Items (these are issues that came up that we deferred until the next meeting or later)

D: Action items (this shows both the Action items for the 1st and 2nd SC meetings, for the future as we complete action items we can drop them off the list, I also like track and report for the minutes completion of items, for example, 15 of 18 items completed. I believe this give the members confidence that nothing is falling off of the table)

E: Priority Projects (this is the 1 page summary handout that David Senn had showing his 16 priority projects, this needs to be insert as I don't have a final version)

F: Voting on Funding (this is the spreadsheet that shows the voting for Final approval on $935k in spending)

Several action items need to get started. Let me know if you would like my assistance in driving some of these to completion (i.e. organizing meetings, agendas, developing topics for discussion, etc)

David R. Williams
Executive Director
Bay Area Clean Water Agencies (BACWA)
Cell: 925-765-9616
Email: dwilliams@bacwa.org

Meeting Summary
Nutrient Management Strategy
Steering Committee Meeting 2
June 25, 2014

1. Welcome and Introductions:

All participants were welcomed and introductions were made. Sign-up sheets were passed around for Steering Committee (SC) members and alternates as well as for other attendees (see Attachment A). The agenda was discussed and no changes were made. The meeting protocols were reiterated from the first SC meeting with the understanding that first SC members would be provided the opportunity to comment on all agenda items followed by other attendees being given ther opportunity to comment.

2. Administrative Business:

Minutes Approval: There were no comments on the Meeting Summary for Meeting 1 however due to the lateness of the packet delivery; no approval of the minutes was requested at the meeting. A request was made by the Facilitator to review the electronic version of the Meeting Summary and send any changes to the Facilitator who will revise as needed; redistribute any changes to the SC; and call for an approval by email.

It was decided that in future Meeting Summaries attributing comments to individual attendees will not be needed. It was also suggested to record meeting decisions and to establish a "parking lot" for items to be handled in the future (see Attachment B for Decisions Recorded and Attachment C for Parking Lot Items).

Action Items: The Action Items from the first Steering Committee were reviewed and status updates were provided (See Attachment D).

SC Member Updates:

- CVRWQCB has started a similar process including a SAG and Technical Group, a research plan will be developed in spring 2015
- EBMUD has received a $500k grant for piloting nutrient removal in treatment plant solids processing sidestreams which could prove to be a more cost-effective approach to than full scale treatment.
- The Watershed Permit requires all treatment plants to the feasibility and costs for optimizing existing facilities for nutrient removal as well as upgrading facilities.
- The Facilitators contract that had been funded by the Water Board (WB) has run out. BACWA has provided a $15k bridge contract to provide facilitation of the next few Nutrient Technical Workgroup (NTW) and SC meetings. Funding for the bridge contract will come out of the $880k required from POTWs in the WS Permit. SC members generally voiced

support for facilitation but also were concerned about making funding decisions without having a good understanding of the whole funding picture.

- The alternative of a Program Coordinator in conjunction with perhaps other subgroups of the SC such as an Executive, Governance or other Subcommittee of the SC was discussed in some detail. Coordination is different than facilitation and a Program Coordinator would handle such issues as follow-up on action items, assistance in agenda development, providing staff work for the SC, coordination between the Science Manager and the SC on a day-to-day basis, helping develop and present management/strategy issues for SC deliberation. The WB has limited resources to provide more in-depth support to the SC. This kind of coordination could come in the form of in-kind support from SC participants, but being mindful of concerns over bias.

  Further discussion entailed with questions arising as to who should be involved in agenda preparation, what kind of communication strategy should be put in place, who is the staff contact for all things NNE at the WB, is there a dedicated person at the WB to handle program coordination, can the SC afford facilitation in the long run? It was decided to discuss this issue further under item #3 on the agenda dealing with the Charter.

  Several action items came out of the discussion and are recorded in the Action Item list (see Attachment D).

3. Final Charter Discussion

Feedback had been received from a couple of the SC members since the first SC meeting. Since the first SC meeting the Charter has been reformatted making it somewhat difficult to provide track changes of the Charter so the Facilitator walked through the changes as follows:

- No list of SC members is included
- pg. 2, italics related to NNE was added
- pg. 3, the last bullet under 3.0 addressing adaptive management was added
- pg. 3, under 4.0, the Steering Committee was moved to the first position under describing the organizational structure
- pg. 4, under 4.1.1 the 5th bullet stating the SC confirms the Peer Reviewers was added
- pg. 5, the 5th bullet “Other Interested Entities” was added
- 4.1.4, the correct name “State and Federal Contractors Water Agency” was added
- pg. 7, 4.1.9 the decision making process was moved to Appendix B

- 4.3 The issue of who the Science Manager reports to is not addressed in the Charter at this time.
- pg. 11, 4.6 the issue of how to select the Peer Reviewers is not yet decided
- pg. 14, 8.0 the middle paragraph on candid communication was added
- pg. 16, arrows were added to the Org Chart to indicate on-going vs. periodic communication between groups; also added the Public Outreach and Education bar at the bottom
- Appendix B pg. 18 defined quorum as 2/3 of the SC members present.
- Pg. 19, the section on Facilitated Decision Making Process was added to reflect introductory comments.

The Charter will not go through a ratification process. The WB still has the final say. The Charter is a 'living document" which may change over time as improvements are identified. The WB will be reviewing it periodically.

Discussion and comments on the Charter ensued with responses provided (C: comment; R: response; NR no response:

- C: Appears to be a significant amount of overlap between the SC and the NTW agenda and attendees R: NTW is intended to be a very technical group with the SC addressing more of the technical priorities but also political and economic issues as well
- C: If we accept the Charter are we also accepting the Science Core Team? R: the Sci Core Team presented to date is backward looking, it will change in the future, for example now it has few experts on fisheries.

THE MEETING WAS INTERRUPTED BY A FIRE ALARM

- C: should there be a solid arrow line between SC and orange box on Org for example the DSC? R: there is a lot going on in the Delta, the "bulls eye" diagram presented at the last meeting tried to depict what was in and what was out of the Bay NMS. 4.8 Other Regional Efforts of the Charter addresses this issue.
- C: if the SC advises the WB, what is the role of the WB at the meeting, should it be the chair where it molds the advice of the SC to the WB?, NR.
- C: if a facilitator is addressed in the current Charter, does that mean there will always be a facilitator? R: the Charter is a "living" document, right now there is a facilitator involved so Charter is accurate for now.
- C: don't append documents that list groups that it is envisioned will change in the future, e.g. the Science Team. R: general support
- C; who prepares agendas for the SC meetings? R: top of page 4. WB, facilitator, Science Manager & reps from SC.
- C: is there a need for a smaller subgroup of SC? R: still an action item that needs to be addressed, as well as whom does Sci Mgr. report to.

- C: what is the benefit of a subgroup, is there a need for an interim subgroup, does a subgroup get memorialized in the Charter? NR
- C: subgroup is a conceptually a good model given time and energy, a little leary of a workgroup due to time and workload?, NR
- C: SC may be too big to steer, really more a deciding committee. NR
- C: WB can send out requests for agenda items, but what if one team member wants something on agenda? NR
- C: RMP Steering Committee has a chair and vice chair along with program managers. NR
- C: Proposed that a small group should be involved w/ WB and Sci Mgr. and empowered to decide what the SC wants on their agenda.

At that point in the discussion, the Facilitator asked if a small subgroup of the SC would want to work on agenda development, provide recommendations on a Program Coordinator, and discuss leadership of the SC. Volunteers were: BACWA, BayKeeper, WB and the Sci Mgr.

It was decided to provide a glossary of acronyms for the Charter and a list of the current SC members and alternates in the Charter but no contact information.

4. NMS Assessment Framework

Martha Sutula of SCCRWP gave a presentation which provided an update on the status of the Assessment Framework (AF). She indicated she had been working with the Science Manager in the development of the AF. She stated the intent was to figure out how to assess the condition of the Bay in a quantitative and transparent manner. The AF could be used by the WB for regulatory purposes.

The AF takes the conceptual model and translates it into an application of condition assessment. The goal is to figure out the management end points. Her presentation covered the following:

- AF Core Principles
- Monitoring Program
- Indicators and Links to Beneficial Uses

The key indicators are the water column concentration of Chl-a, dissolved oxygen and HABs. Presently there is a lot of emphasis on Chl-a but the models will allow assessment of DO and HABs.

At that point in the presentation, a number of questions/comments ensued:

- Do we change the Basin Plan?

- Are there other metrics, other pathways, what are the key nutrient forms or ratios like ammonia or N:P ratio?
- The end game of the effort is management actions in the near or long term based on calculation of allow loads
- Models can test the impact of loadings on the Bay
- There should be some attention to validation of the assessment not just theoretical predictions, do the observations in the Bay support what the models are saying?
- An assessment tool is needed as "ground truthing" is expensive, intent is not to lock in indicators (already have one for DO) but trying to translate indicators to management actions.
- WB will take "weight of evidence" approach and will look at the link to beneficial uses.
- If the numbers that come out of the AF indicate a huge financial impact then may need to re-examine and look at beneficial uses.
- Be careful of getting nutrient levels too low
- Next steps would be to specify ranges of values that define categories for each metric.

The presentation continued with Basis for Quantitative Discussion of Classification Boundaries: look at

- Primary productivity, HAB cell count
- Chl-a
- episodic low DO events

There appears to be link between Chl-a and low DO, but don't have the data set, and thus rely on models. One question is that during stratification, what concentration of Chl-a would cause suboptimal DO? And can stratification last long enough for this to take place? HABs are also linked to increase in Chl-a. How much Chl-a would you need to reach HABs threshold of concern?

Discussion and questions/comments ensued:

- Chl-a is an indicator and not a causative agent
- What about turbidity as a factor?
- Assumptions are very important, are all of the key assumptions going to be documented? R: yes, all assumptions will be demounted and then verified thru modeling and monitoring.
- What role does SC play in the AF? R: FA is just a starting point. Lots of opportunity for SC to steer.
- What species is the Chl-a coming from? R: will be looking at phytoplankton composition.

5. Science Program

The Science Manager began the discussion of the Science Program. The budget is $1.4M for 2015. There are 16 projects identified as needing to be done with 10 being designated high priority (see attachment E). The question was asked by the Facilitator if as a group is the SC comfortable with any of the 10? For those that the SC is not comfortable with now, they can be agendized at the next meeting. Since the meeting was already running late due to the Fire Drill, an approach was suggested whereby the SC would be asked for conditional agreement on each of the 10 projects. If there was unanimous conditional agreement, the questions would be raised if there was final agreement.

Questions/comments ensued:

- What are the consequences of a not approving one or more of the 10?
- What if there is not enough money for all 10?
- Do we vote project by project?
- How do the funds match up with differing FYs?
- The RMP is the calendar fiscal year to go by which is a calendar year.
- Should we try to align FYs?
- Do we know if any data collection effort will be redundant with other efforts and do we truly know the data gaps?

At that point the Science Manager went thru the presentation on projects, priorities, and funding. He stated he worked with his 'inner core team" to identify the highest priority projects for FY 15, and also those projects that 2-3 years from now we had wished we had moved forward now. The presentation laid out the framework for the studies that need to be undertaken, including monitoring, modeling, load analyses, and the AF. It identified studies that would address impacts including increased productivity, phyto composition and low productivity due to ammonium.

On the question of available funding, the high side estimate was roughly $1.5M which included $880k from the WS permit, $250 - $500k from the RMP, $195k form the WB and $330 from the RMP for modeling and the rest from carry forwards from other work. The basis for prioritizing was timing of projects, windows of opportunity, need for sequencing, projects on the critical path and need to assemble and keep the SFEI team of scientists busy.

Ultimately the Science Plan, which is in production, will set the needs and priorities but it is not yet available so decisions need to be made now in lieu of simply halting all work until the Science Plan is completed. The Science Plan is being developed by the Core Science team and it will be peer reviewed. Lots of technical information has already been developed and reviewed. These include reports with recommendations that have been reviewed by the Nutrient Technical Workgroup (NTW) and the Regional Monitoring Program Steering Committee and Technical Review Committee. It was

noted that a web based tool is being developed that will allow stakeholders to see all the work that has been completed, is currently in progress or is being planned.

The presentation showed that $1.45M was needed to do all 10 high priority projects. The available funds total $1.13 - $1.38M ($880k from WS Permit and $250 - $500k from RMP) which accounts for differing fiscal years for one half of the RMP funds. It was noted that there has been little effort to solicit other funding sources that could be available from members of the SC or others. Also that the $500k RMP funds are yet to be locked-in. Thus with a need of $1.45M there is a shortfall of $320 - $70k.

Questions/comments ensued about how to proceed:

- The fact that it is a drought year presents the opportunity to collect special data that otherwise would not be available in a regular year
- Are any of the 10 interdependent? R: there are some cost-effective linkages
- The moored sensor and monitoring staff cost is split between 2 projects
- Is there any one project that can be deleted to get within the available funds?
- Is it possible to stretch out and phase the projects thereby saving funds now?
- What is the likelihood of others contributing such as the SFCWA or Sac Regional?

At that point the Facilitator asked if any of the SC members know absolutely that their organization would not be contributing funds to the effort?

- Both the CVRWQCB and Calif Dept. of Fish & Wildlife said no they would not be contributing any funds although Fish and & Wildlife said it may not be definite but probably not.
- Sac Regional may be able to contribute if it is justifiable based on their interests but they have just approved their FY 15 budget so if possible, it would have to wait until next FY.
- The Delta Stewardship Council could have a small amount of money that might be available.
- The SFCWA needs approval form their Board for any funding authorizations. Their FY begins in March. They are doing proposal reviews now but the focus is on the Delta. They also need more time since they have very strict peer review requirements for funding, however, the peer review of the Science Plan for the NMS would suffice for meeting the requirement for peer review by the SFCWA.

The question was asked if there were proposals for grants that could bring in money. Money has already been obtained for cytobot imagery for organism identification and $3M is being sought through the IRWM grants in 2015 for the moored sensor program

The CVRWQCB is also doing a modeling effort and wondered if it will be able to talk to the Bay model in hopes of achieving cost-effective synergies. The Science Manager showed a slide that depicted the modeling network extending from the Bay, past the Delta; well up into the tributary rivers.

The discussion then turned to what could be cut to meet the available funding restrictions. Discussion ensued:

- It was pointed out that some projects could be delayed or reduced in scope such as P10: the Suisun Phyto Growth or P8: DO in the Margins.
- It was pointed out that cuts may impact staffing plans.
- Need to consider management costs for the program and the ability to hire promptly
- The DO objectives project is an important project, but it was pointed out that is essentially already set in stone and is going forward
- The DO in the margins at $300k is a big ticket project
- If you don't start the DO project in the summer, then it should be delayed until the spring since low DO is in the summer, but it may already be too late to do the DO in the margins project
- Do you need the 4th moored sensor site in P 3? R: USGS will not monitor phyto composition if we don't do P9
- P 1,3 and 15 all may have RMP $s
- Are the costs of operation and maintenance of the moored sensors factored into the cost estimates for the projects? Several have been in for a few years. Is there data good? Was O&M costs envisioned when they were installed and if not why not? In the long run are they still a high value expenditure? Key questions on the moored sensors are what are their costs in the future, are they reliable, are they accurate, regardless of whether or not they are already deployed.
- For P8 DO in the shallow habitats, should the moored sensors be brought into the sloughs and creeks?
- P1 modeling and P4 monitoring program development are important
- P5 stratification is time critical w/r to the opportunity to pursue
- Does stratification ever last long enough? R: can last up to 10 days
- Which projects are only 1 yr. in length? R: P10, 5, 2, and 15

Time was running out and some SC had to leave. A check showed that a quorum still existed with 12 members present (Sac Regional would not vote since there rep had not officially been designated as an alternate). In order for the Science Manager to continue he needed some decisions soon.

The Facilitator laid out a decision making process using a thumbs up, down, or sideways indication for projects put forth by the Science Manager as his highest priorities. Unanimous thumbs up or sideways on a project meant it achieved conditional approval. Conditionally approved projects would not go forward immediately but be

revisited at the next SC meeting. However if conditional approval was attained and the sense was that there was no glaring hesitation on the part of any SC member, the Facilitator would call for a thumbs indication to check if the SC were ready for final approval which meant the project could be initiated.

Caveats gleaned from the discussions on the projects that need to be stated for the voting on a project were set forth as follows:

1. The funding is for 1 yr only?
2. Are there implications for no action?
3. Are there redundancies involved?
4. Are there any interdependencies?
5. Is the staff available?
6. Are there drought issues?
7. Can the project be phased over time?
8. Does the work translate up into the Delta?
9. Can we look for funding elsewhere?

For the next 30 minutes, the Science Manager sequentially stated his priority projects one by one in order of highest priority projects first. The thumbs vote was then taken. During the course of the voting some discussion ensued resulting in some projects being scaled back in their funding request. Since during the course of the discussion it became apparent that the Science Manager would run out of funds for overall management of the science program, it became essential to approve at least part of P15 Science Management project. The order of priorities, the voting results and the funds approved are shown in Attachment F. The result of this exercise was that 6 whole or parts of projects were approved with a total allocation of funds amounting to $935k for the FY 15 beginning July 1, 2014.

Following the project voting it was realized that the Suisun Growth Project P10 would be stopped. Several SC members felt that project was worth pursuing and some SC members indicated that they may be able to contribute funds for it to be continued. A small subgroup of the SC consisting of Sac Regional, SFCWA, CVRWQCB, BACWA, and WB staff will participate in a conversation on whether or not there is a desire and funding to continue that project.

Given the lateness of the hour, a review of the Action Items and Next Steps was cancelled.

The meeting adjourned at roughly 4:10pm.

ATTACHMENT B
DECISIONS
NUTRIENT MANAGEMENT STRATEGY
STEERING COMMITTEE MEETING 2
June 25, 2014

Decision #	Agenda Item#	Title	Description
1	2	***Administrative Business***	attributing comments to attendees should be eliminated in Meeting Summaries
2	3	***Final Charter Discussion***	include list of anronmyms and list of SC members and alternates in Charter, but no contact information
3	5	***Science Program***	approved $935k spending for five priority projects

ATTACHMENT C

STEERING COMMITTEE PARKING LOT (for future SC meeting agendas)

ITEM	DESCRIPTION
1	provide status report on the Optimization and Upgrade Studies
2	further discussion of the need for and funding of a Program Coordinator,subgroup(s) of SC, communication strategy
3	who does the Science Manager report to
4	discussion of scope of work, cost estimate, and modules of assistance for facilitation

ATTACHMENT D
ACTIONS ITEMS
NUTRIENT MANAGEMENT STRATEGY 1
STEERING COMMITTEE MEETING
April 22, 2014

Action Item #	Agenda Item#	Title	Description	Type of Action	Responsible Party(s)	Due Date	Status
1	2	***Nutrient Management Strategy and Role of the Steering Committee***	Compile a list of currently available funding (and funding sources) and past and potentially available future funds to conduct scientific studies	Compile lists and distribute to Steering Committee prior to next meeting	Naomi Feger /David Senn	1 week prior to the next meeting	in-progress
2	3	***Nutrient Management Strategy Charter***	Confirm that Val Connor of the State and Federal Contractors Water Agencies will also be representing public water agencies on the Steering Committee and whether her current role is most appropriate	Confirmation of representation	Naomi / Tom Mumley / Val Conner	next meeting	**DONE**
3	3	***Nutrient Management Strategy Charter***	Furnish the Delta Science Program peer review process to the facilitator and distribute to the Steering Committee	Provide and distribute	Sam Harader/Dave Ceppos.	1 week prior to the to next meeting	**DONE**
4	3	***Nutrient Management Strategy Charter***	Add the definition of a Steering Committee "quorum" to the proposed Charter	Modify Charter text	Dave C.	1 week prior to the next meeting	**DONE**
5	3	***Nutrient Management Strategy Charter***	Post the Final Charter online when modifications have been incorporated and the document has been finalized by the Regional Water Quality Control Board.	Modify charter text	Dave C./ Naomi	To be determined	**approved by SC, to be posted**
6	3	***Nutrient Management Strategy Charter***	Compile a list of current participants (by name and topic responsibility) on the Core Team circle shown on the Organizational Structure, Figure 1 of the Charter	Compile list and distribute to Steering Committee prior to next meeting	David S.	1 week prior to the next meeting	**DONE**
7	3	***Nutrient Management Strategy Charter***	Add agenda item to next meeting to discuss responsibilities and mechanism for Science Manager reporting to the Steering Committee	Add agenda item	Dave C / Tom	1 week prior to the next meeting	pending
8	3	***Nutrient Management Strategy Charter***	Provide comments (by email) on the Draft Charter to the facilitator (dceppos@ccp.csus.edu) by May 6, 2014, 5:00 pm PST	Provide comment	All Steering committee members	5/6/2014	**DONE**
9	4	***Overview of the Science Program***	Prepare a "road map" of the Nutrient Management Strategy and indicate where we are now	Provide graphic	David S.	1 week prior to the next meeting	pending
10	4	***Overview of the Science Program***	Provide the final Conceptual Model to the Steering committee	Report and presentation	David S.	Next meeting	will be complete d in July
11	5	***Next Meeting Business Items and Steering Committee Schedule for 2014***	Provide to the facilitator (by email), dates and times for which Steering Committee Members and Alternates are routinely not available for meetings	Provide dates/times	All Steering Committee Members / Alternates	4/26/14,	**DONE**
12	5	***Next Meeting Business Items and Steering Committee Schedule for 2014***	Discuss and identify additional persons that should be on the NMS email distribution list	Provide names / contact info	Dave C.	Next meeting	**DONE, continue to add names as needed**

ACTIONS ITEMS
NUTRIENT MANAGEMENT STRATEGY
STEERING COMMITTEE MEETING 2
June 25, 2014

Action Item #	Agenda Item#	Title	Description	Type of Action	Responsible Party(s)	Due Date	Status
1	2	***Administrative Business***	Review electronic version of Meeting Summary 1 and send track changes to Facilitator	provide edits	Steering Committee	2-Jul-14	pending
2	2	***Administrative Business***	Provide scope and cost for future facilitation beyond bridge contract	provide and distribute	Dave C.	1 week prior to the to next meeting	pending
3	2	***Administrative Business***	For next agenda include discussion of future facilitation, formation of subgroup(s) of the SC, communication strategy	agendize	SC Workgroup	next meeting	pending
4	3	***Final Charter Discussion***	spell out the names of the SC members or add a list of acronyms to the Charter	Modify Charter text	Dave C.	next meeting	pending
5	3	***Final Charter Discussion***	include list of anronmyms and list of SC members and alternates in Charter	Modify charter text	Dave C.	next meeting	pending
6	5	***Science Program - FY 2015 Projects/Studies***	agendize remaining projects of the 16 that were not wholly funded at SC Meeting 2	agendize	SC Workgroup	nexy meeting	pending
7	5	***Science Program - FY 2015 Projects/Studies***	engage in a consersation regarding advancing porject P10 Suisun Growth	meeting	Sac Regional, WB, BACWA, SFCWA, CVRWQCB	1 week prior to the next meeting	pending

DRAFT

Executive Board Special Meeting Agenda

SF Bay Regional Water Board / BACWA Executive Board
Joint Meeting
Date TBD
SF Bay Water Board, 1515 Clay Street, St. 1400 Oakland, CA

ROLL CALL AND INTRODUCTIONS

PUBLIC COMMENT

DISCUSSION - OTHER BUSINESS

1. Nutrients
    a. Governance Executive Committee
    b. Future Program Support
        i. Facilitator
        ii. Program Coordinator
    c. Progress on Consultant Selection for Optimization/Upgrade Studies
    d. WS Case Study Symposium
    e. SWRCB SAG on Nutrient Objectives
2. Receiving Water Monitoring
3. Vector Control General Order
4. Statewide Focus Group on Mercury Program
5. Statewide Focus Group on Bacterial Objectives
6. Other on-going topics
    a. Risk Reduction
    b. Toxicity
    c. CEC monitoring update
    d. Selenium
7. Mid-Year Coordination Meeting – Local venue

ADJOURNMENT

BACWA BAY AREA CLEAN WATER AGENCIES

DRAFT

July 14, 2013

BDCP Comments
Ryan Wulff, NMFS
650 Capitol Mall, Suite 5-100
Sacramento, CA 95814

VIA EMAIL: BDCP.Comments@noaa.gov

Subject: Comments on Bay-Delta Conservation Plan (BDCP) and associated environmental impact report/environmental impact statement (EIR/EIS)

Dear Mr. Wulff:

The Bay Area Clean Water Agencies (BACWA) appreciates the opportunity to comment on the Bay-Delta Conservation Plan (BDCP) and associated environmental impact report/environmental impact statement (EIR/EIS). BACWA is a joint powers agency whose members own and operate publicly-owned treatment works (POTWs) and sanitary sewer systems that collectively provide sanitary services to over 6.5 million people in the nine-county San Francisco Bay Area. BACWA members are public agencies, governed by elected officials and managed by professionals who protect the environment and public health. On behalf of its member agencies, BACWA requests that following comments on the BDCP's impact on contaminants be considered.

The area studied for impacts by the BDCP is delineated at its western boundary at the Benicia Bridge (page 4 of the BDCP). While the EIR/EIS expands this area to consider upstream impacts, it does not consider downstream impacts. Since the San Francisco Bay is hydraulically connected to the Sacramento-San Joaquin Delta (Delta), the BDCP should evaluate impacts to the entire San Francisco Bay. BACWA is particularly concerned about the impact of the BDCP on selenium.

The North San Francisco Bay is 303(d) listed for selenium, and therefore selenium loads and impacts have been studied for many years[1]. The Delta contribution of selenium to Suisun Bay, in particular from the San Joaquin River, is well documented. Implementing the BDCP project would increase the flow from the San Joaquin River to Suisun Bay relative to the flow from the Sacramento River. Since the San Joaquin River has much higher selenium concentrations than

[1] For example, please see the North San Francisco Bay Selenium Characterization Study, 2012, prepared by Tetra Tech in support of the North San Francisco Bay Selenium TMDL: ftp://swrcb2a.swrcb.ca.gov/pub/rwqcb2/Staff/Barbara%20Baginska/Se%20DrftFinal%20Rpt%2010_5_12.pdf

the Sacramento River, this could increase the loading of selenium to Suisun Bay, and ultimately to the entire North San Francisco Bay.

The EIR/EIS proposes that selenium in Suisun Bay will be controlled by the TMDL under development by the San Francisco Regional Water Quality Control Board: "*Discharges from point sources in North San Francisco Bay (i.e., refineries) that contribute selenium to Suisun Bay and the western Delta are 21 expected to be reduced through a TMDL under development by the San Francisco Bay Water Board that is expected to result in decreasing discharges of selenium*." (Page 8M-5 Lines 19-36). This assessment places the burden of mitigating the environmental impacts of selenium from the proposed BDCP project to dischargers downstream from the project. The combined selenium load from all refineries is estimated to be approximately 500 kg/yr, whereas approximately 2,700 kg/yr comes from the delta outflow. Contributions from point source dischargers other than the refineries are much smaller[2]. Therefore, a small increase in selenium loading from the Delta entails a much larger proportional decrease by point source dischargers. BACWA believes that it is inappropriate to plan to increase discharges of a 303(d) listed constituent while relying on the TMDL process to offset the increase in the future.

BACWA requests that impacts on the entire San Francisco Bay, not merely the portion that is upstream of the Benicia Bridge, be considered in the EIR/EIS. More current data, such as those associated with the North San Francisco Bay TMDL development, should be used to evaluate the impacts of the BDCP on selenium loading. Additionally, the BDCP should not rely on future regulatory actions by outside entities to mitigate adverse impacts of the projects.

BACWA appreciates the opportunity to comment on the BDCP and thanks you for considering our concerns.

Respectfully Submitted,

David R. Williams
Executive Director
Bay Area Clean Water Agencies

cc: BACWA Board

[2] For an estimate of selenium loadings to North San Francisco Bay, please see North San Francisco Bay Selenium TMDL Preliminary Project Report, 2011 at: http://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/TMDLs/northsfbayselenium/SeTMDL_PreliminaryReport_01-11.pdf

DRAFT

TOPICS FOR DISCUSSION AT THE ANNUAL TECHNICAL SEMINAR

October 21 – 23, 2014

EBMUD Pardee Facility

Tuesday, October 21st (noon – 5:00 pm)

Financial

1. Review of financial position and revenue needs for coming years
2. Dues/CBC/Nutrient Surcharge modifications

Board/Committee/Membership

3. Review of overall committee structure, effectiveness and value to the membership
4. Options for incorporating Air as a BACWA Committee
5. Options for expansion of Board
6. Review of other programs administered by BACWA

Communications

7. Options for web site improvement
8. Options for better membership engagement

Wednesday October 22nd (8:30 to 5:00)

Nutrients

1. Technical
    a. Progress on WS studies and technical issues
    b. Update on scientific studies in progress
    c. Update on Science Plan
    d. Debrief on Symposium
2. Regulatory
    a. Scoping and Evaluation Plans
    b. Update on permit monitoring efforts

    c. Strategies for the next 5 year permit
    d. Statewide Nutrient Objectives
3. Governance
    a. Executive Committee
    b. Program Coordination

<u>Other Regulatory Issues</u>

1. Risk Management
2. Selenium
3. Toxicity Plan
4. CEC monitoring

Welcome WB

Thursday October 23rd (8:00 to 3:00)

<u>Coordination with WB</u>

1. Review progress on Optimization/Upgrade Studies
2. Regulatory impacts of scientific findings to date
3. Discussion of insights gained from Symposium
4. Discuss “no net loading” and next 5 yr permit
5. Governance issues going forward
6. Other Technical regulatory issues

DRAFT

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Subject: Comments on Bay-Delta Conservation Plan (BDCP) and associated environmental impact report/environmental impact statement (EIR/EIS)

Dear Mr. Wulff:

The Bay Area Clean Water Agencies (BACWA) appreciates the opportunity to comment on the Bay-Delta Conservation Plan (BDCP) and associated environmental impact report/environmental impact statement (EIR/EIS). BACWA is a joint powers agency whose members own and operate publicly-owned treatment works (POTWs) and sanitary sewer systems that collectively provide sanitary services to over 6.5 million people in the nine-county San Francisco Bay Area. BACWA members are public agencies, governed by elected officials and managed by professionals who protect the environment and public health. On behalf of its member agencies, BACWA requests that following comments on the BDCP's impact on contaminants be considered.

The area studied for impacts by the BDCP is delineated at its western boundary at the Benicia Bridge (page 4 of the BDCP). While the EIR/EIS expands this area to consider upstream impacts, it does not consider downstream impacts. Since the San Francisco Bay is hydraulically connected to the Sacramento-San Joaquin Delta (Delta), the BDCP should evaluate impacts to the entire San Francisco Bay. BACWA is particularly concerned about the impact of the BDCP on selenium.

The North San Francisco Bay is 303(d) listed for selenium, and therefore selenium loads and impacts have been studied for many years[1]. The Delta contribution of selenium to Suisun Bay, in particular from the San Joaquin River, is well documented. Implementing the BDCP project would increase the flow from the San Joaquin River to Suisun Bay relative to the flow from the Sacramento River. Since the San Joaquin River has much higher selenium concentrations than

[1] For example, please see the North San Francisco Bay Selenium Characterization Study, 2012, prepared by Tetra Tech in support of the North San Francisco Bay Selenium TMDL: ftp://swrcb2a.swrcb.ca.gov/pub/rwqcb2/Staff/Barbara%20Baginska/Se%20DrftFinal%20Rpt%2010_5_12.pdf

the Sacramento River, this could increase the loading of selenium to Suisun Bay, and ultimately to the entire North San Francisco Bay.

The EIR/EIS proposes that selenium in Suisun Bay will be controlled by the TMDL under development by the San Francisco Regional Water Quality Control Board: "*Discharges from point sources in North San Francisco Bay (i.e., refineries) that contribute selenium to Suisun Bay and the western Delta are 21 expected to be reduced through a TMDL under development by the San Francisco Bay Water Board that is expected to result in decreasing discharges of selenium*." (Page 8M-5 Lines 19-36). This assessment places the burden of mitigating the environmental impacts of selenium from the proposed BDCP project to dischargers downstream from the project. The combined selenium load from all refineries is estimated to be approximately 500 kg/yr, whereas approximately 2,700 kg/yr comes from the delta outflow. Contributions from point source dischargers other than the refineries are much smaller[2]. Therefore, a small increase in selenium loading from the Delta entails a much larger proportional decrease by point source dischargers. BACWA believes that it is inappropriate to plan to increase discharges of a 303(d) listed constituent while relying on the TMDL process to offset the increase in the future.

BACWA requests that impacts on the entire San Francisco Bay, not merely the portion that is upstream of the Benicia Bridge, be considered in the EIR/EIS. More current data, such as those associated with the North San Francisco Bay TMDL development, should be used to evaluate the impacts of the BDCP on selenium loading. Additionally, the BDCP should not rely on future regulatory actions by outside entities to mitigate adverse impacts of the projects.

BACWA appreciates the opportunity to comment on the BDCP and thanks you for considering our concerns.

Respectfully Submitted,

David R. Williams
Executive Director
Bay Area Clean Water Agencies

cc: BACWA Board

[2] For an estimate of selenium loadings to North San Francisco Bay, please see North San Francisco Bay Selenium TMDL Preliminary Project Report, 2011 at: http://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/TMDLs/northsfbayselenium/SeTMDL_PreliminaryReport_01-11.pdf

DRAFT

TOPICS FOR DISCUSSION AT THE ANNUAL TECHNICAL SEMINAR

October 21 – 23, 2014

EBMUD Pardee Facility

Tuesday, October 21st (noon – 5:00 pm)

Financial

1. Review of financial position and revenue needs for coming years
2. Dues/CBC/Nutrient Surcharge modifications

Board/Committee/Membership

3. Review of overall committee structure, effectiveness and value to the membership
4. Options for incorporating Air as a BACWA Committee
5. Options for expansion of Board
6. Review of other programs administered by BACWA

Communications

7. Options for web site improvement
8. Options for better membership engagement

Wednesday October 22nd (8:30 to 5:00)

Nutrients

1. Technical
    a. Progress on WS studies and technical issues
    b. Update on scientific studies in progress
    c. Update on Science Plan
    d. Debrief on Symposium
2. Regulatory
    a. Scoping and Evaluation Plans
    b. Update on permit monitoring efforts

    c. Strategies for the next 5 year permit
    d. Statewide Nutrient Objectives
3. Governance
    a. Executive Committee
    b. Program Coordination

<u>Other Regulatory Issues</u>

1. Risk Management
2. Selenium
3. Toxicity Plan
4. CEC monitoring

Welcome WB

Thursday October 23rd (8:00 to 3:00)

<u>Coordination with WB</u>

1. Review progress on Optimization/Upgrade Studies
2. Regulatory impacts of scientific findings to date
3. Discussion of insights gained from Symposium
4. Discuss “no net loading” and next 5 yr permit
5. Governance issues going forward
6. Other Technical regulatory issues