Executive Board Meeting Agenda

Friday, February 21, 2014, 9:00 a.m. – 12:00 p.m.
SFPUC 525 Golden Gate Ave., San Francisco, CA

Agenda Item	Time	Page #
ROLL CALL AND INTRODUCTIONS	9:00 a.m. – 9:03 a.m.	
PUBLIC COMMENT	9:03 a.m. – 9:05 a.m.	
CONSIDERATION TO TAKE AGENDA ITEMS OUT OF ORDER	9:05 a.m. – 9:07 a.m.	
CONSENT CALENDAR 1. December 20, 2013 BACWA Executive Board Meeting Minutes 2. November 2013 Treasurer's Report 3. FY2014 Contribution to BASMAA from BAPPG for IPM Partnership Program, $10,000; File 13,150.	9:07 a.m. – 9:10 a.m.	3 – 7 8 – 13 14 – 15
REPORTS 4. Committee Reports 5. Executive Board Reports 6. Executive Director Report • BAPPG Committee • Long Term PSL Strategy • Utility Leadership Committee Priorities • Water Quality Trading Alliance • Stochastic Permitting 7. Regulatory Program Manager Report • SFEI progress on BACWA contracts • North Bay Selenium TMDL 8. Chair & Executive Director Authorized Actions a. Executive Director Authorization to execute agreement with O'Rorke, Inc. for BAPPG Partnership with Air District campaign support not to exceed $2,000; File 13,135. b. Executive Board Chair Authorization for Federal Water Quality Coalition FY14 dues, $5,000; File 13,151. c. Executive Board Chair Authorization to Utilize As Needed Contract with HDR for Nutrients Assistance, $9,999; File 12,976.	9:10 a.m. – 10:00 a.m.	16 – 27 28 – 36 37 – 39 40 – 43
OTHER BUSINESS 9. Presentation: ReNUWIt – David Sedlak 10. Discussion: Annual Member Meeting Debrief 11. Discussion: February Joint Water Board/BACWA Meeting Debrief 12. Discussion: IRWMP Regional Project Proposal for Prop 84 13. Discussion: FY2015 Budget Planning	10:00 a.m. – 11:59 a.m. **[11:00 a.m. – 11:30 a.m.]**	44 – 54 55 – 56 57 – 77 78 – 85

14. Discussion: Nutrients a. Technical Work i. Optimization and Upgrade Studies ii. Assessment Framework b. Governance Structure i. Update on BACWA/Water Governance Task Force Committee ii. Program Coordination c. Regulatory – Next Steps on Tentative Order 15. Discussion: Risk Reduction 16. Discussion: Stormwater Diversions 17. Discussion: 2014 BACWA Executive Board Calendar a. Pardee October 21 – 23, 2014 (Tuesday – Thursday) b. Mid-Year Orinda Meeting with Water Board		86 87 – 106 107 – 110
SUGGESTIONS FOR FUTURE AGENDA ITEMS	11:59 a.m. – 12:00 p.m.	
NEXT REGULAR MEETING The next regular meeting of the Board is scheduled for **March 21, 2014** from 9:00 am – 12:00 pm at the **EBMUD Lab Library, 2020 Wake Avenue, Oakland.**		
ADJOURNMENT	12:00 p.m.	

Executive Board Meeting Minutes

Friday, December 20, 2013, 9:00 a.m. – 12:00 p.m.
EBMUD Operations Center, 2020 Wake Avenue, Oakland, CA

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).

Other Attendees: Roger Bailey (Central Contra Costa Sanitary District); Melody LaBella (Central Contra Costa Sanitary District); Karri Ving (San Francisco Public Utilities Commission); Manon Fisher (San Francisco Public Utilities Commission); Vince DeLange (East Bay Municipal Utility District); Nirmela Arsem (East Bay Municipal Utility District); Joan Louie (East Bay Municipal Utility District); Amanda Roa (Delta Diablo Sanitation District); Greg Baatrup (Fairfield-Suisun Sewer District) Karin North (Palo Alto); Matt Krupp (Palo Alto); Craig Criddle (ReNUWIt); Richard Luthy (ReNUWIt); Perry McCarty (ReNUWIt); Andre Gharagozian (Carollo Engineers); Jim Kelly (San Francisco Estuary Institute); Denise Conners (Larry Walker Associates); Tom Hall (EOA); Monica Oakley (RMC); James Graydon (Brown and Caldwell); Rion Merlo (Brown and Caldwell); Lorien Fono (Patricia McGovern Engineers); Dave Williams (BACWA); Alexandra Gunnell (BACWA).

PUBLIC COMMENT

Jim Kelly notified the BACWA Executive Board of his new position as the Interim Executive Director for the San Francisco Estuary Institute (SFEI) and asked that they contact him with any suggestions for how SFEI can continue to improve their services to support BACWA's needs. The BACWA Board congratulated Mr. Kelly.

CONSIDERATION TO TAKE AGENDA ITEMS OUT OF ORDER

CONSENT CALENDAR

Agenda items 1 - 4 *were approved in a motion made by Laura Pagano and seconded by Ben Horenstein. The motion carried unanimously.*

1. November 15, 2013 BACWA Executive Board Meeting Minutes
2. September 2013 Treasurer's Report
3. October 2013 Treasurer's Report
4. Amendment 2 for SFEI Nutrient support agreement to extend termination date to June 30, 2014; File 12,680.

REPORTS

Committee Reports were reviewed under **agenda item 5.**

Lorien Fono, BACWA's Regulatory Program Manager (RPM), reviewed committee reports included in the handout packet from the AIR Committee, the Lab Committee, Permits Committee, and Recycled Water Committee.

BAPPG Chair, Karri Ving, reviewed the report that was included in the handout packet. As requested by the Board, she provided further clarification to the Univision scope of work explaining that the contract included fewer Public Service Announcements than previous years because the price of advertising has increased. The Board suggested that BAPPG communicate with Greg Kester to make the California Association of Sanitation Agencies (CASA) aware of SFPUC's legal efforts to address issues related to flushable wipes.

The BACWA Executive Director (ED) and the Biosolids Committee Chair, Matt Krupp, informed attendees that CalRecycle is looking at possible changes to regulations concerning the use of biosolids in landfills. The Biosolids committee will continue to monitor this activity through communications with CASA and will keep the Board informed of further developments.

Monica Oakley explained that the Collection Systems Committee did not meet in December and therefore did not include a report in the handout packet. Their next meeting is scheduled for January 16th.

Executive Board representatives (Board) were given an opportunity to provide updates from each of the Principal agencies under **agenda item 6, Executive Board Reports.**

Roger Bailey was introduced as the new General Manager of Central Contra Costa Sanitary District (CCCSD). They are currently seeking a Director of Engineering and a Director of Administration. BACWA's RPM will include links to the job postings on the CCCSD website in BACWA's upcoming newsletter.

Ben Horenstein of East Bay Municipal Utility District (EBMUD) reported that they have been awarded $500,000 of their $800,000 EPA grant proposal for sidestream treatment. SFEI and BACWA member agencies are participating in this project and EBMUD is investigating opportunities to link this effort with possible Nutrient Watershed Permit requirements.

Laura Pagano of the San Francisco Public Utilities Commission (SFPUC) reported that Nancy Stoner, US EPA Acting Assistant Administrator for Water, recently visited and toured their new administrative building. She also noted that their ocean outfall end gate has been replaced and they are continuing to assist with Treasure Island clean up efforts.

Jim Ervin reported that San Jose has submitted their application for permit reissuance and are on schedule for renewal in August.

Mike Connor of the East Bay Dischargers Authority (EBDA) informed attendees that agencies interested in participating in the development of a regional wetlands project proposal for IRWMP funding, should contact EBDA.

The **Executive Director's (ED) December Report** was included in the handout packet for **agenda item 7** and reviewed by Dave Williams. He noted that the Bodcal and running list of Board meeting

action items were included as attachments to the Executive Director's Report, and that he will restart tracking the total number of action items beginning in 2014. He mentioned that Jim Kelly is expected to serve as SFEI's Interim Executive Director for next three to six months as they continue efforts to find a permanent replacement. Also attached to the report was information on NACWA's amicus brief filing; the ED will continue keep Board informed about this effort. Dave Sedlak will attend the February 20th BACWA Board meeting to discuss opportunities for working with ReNUWIt. The ED also explained that he attended the recent BAPPG meeting where he presented the idea of BAPPG becoming a BACWA-financed committee and noted that he received favorable feedback from attendees. He will continue to discuss the proposed changes with member agency managers and then return to Board with their feedback and possibly a proposal. Work to incorporate AIR as a BACWA-financed committee will begin once efforts with BAPPG have concluded. Information from the Bay Protection Behavior Change Group (BPBCG) was included with the ED report. Attendees were informed that the BPBCG work will cease and the remaining balance of funds will be refunded to contributors. BACWA is expected to receive approximately $7,000.

The **Regulatory Program Manager (RPM) Report** was included in the handout packet and reviewed by Lorien Fono under **agenda item 8.** Mike Connor recommended that attendees review the table attached to the RPM report from the recent Regional Monitoring Program (RMP) Sources, Pathways, and Loadings Workgroup Meeting outlining Pollutant Specific Management Question Details.

The following **Chair and Executive Director Authorized Actions** were taken since the November 15, 2013 Board meeting, listed under **agenda item 9**, and supporting information was included in the handout packet.

a. Chair Authorization to execute agreement with Univision for BAPPG FOG Outreach support not to exceed $8,000;File 13,108.

b. Executive Director Authorization to execute agreement with Jennifer Jackson for BAPPG Steering Committee support not to exceed $4,999; File 13,120.

OTHER BUSINESS

For **agenda item 10**, the Board was asked to approve a request to **Grant the Chair Authority to Execute a Revised Contract with Solano Community College for Water Operator Training Program, for the Spring 2014 Semester**. *In a motion made by Jim Ervin and seconded by Mike Connor the Board approved the request unanimously.*

The ED explained that concerns raised by the BACWA Board earlier this year regarding BACWA's financial liability will be addressed in the Spring 2014 agreement and future agreements. Water Operator Training program representatives and BACWA have agreed that BACWA will not sign contracts with Solano Community College for any amount greater than what is available in their account at the time of contract approval The Board noted that BACWA should consider whether this policy could hinder the program. They also requested that BACWA legal counsel review the agreement template to verify that it addresses BACWA's financial liability concerns.

Under **agenda item 11** the ED reviewed the draft agenda for the **Annual Member Meeting** that was included in the handout packet. He explained that Felicia Marcus cannot attend and requested recommendations for another representative from the State Water Resources Control Board. It was recommended that the ED consider increasing the amount of time allotted for Nutrients to allow David Senn more time to present and for the audience to pose questions to SF Bay Water Board staff. The ED will investigate extending the meeting until 3:30 p.m. and consider moving AIR and regulatory updates to the afternoon. It was also noted that the Board should determine if there is any information about fiscal year 2015 member fees that should be conveyed to attendees, and other BACWA Board and member representatives may be considered to present some topics currently assigned to the ED.

For **agenda item 12**, the ED reported that he is currently working to schedule a **Joint SF Bay Water Board / BACWA meeting** and outlook invitations will be e-mailed once the date is confirmed.

For **agenda item 13, IRWMP Update,** the ED explained that BACWA has been investigating opportunities for developing a regional project proposal to apply for Prop 84 round 3 grant funding. The Recycled Water committee has projects that they are planning to submit. Brian Campbell, former BACWA representative for the IRWMP, is available to assist with regional project development efforts, and the ED is working to schedule a meeting for Brian and interested member agency representatives. He noted that SFEI's moored sensor project may be considered and that the BACWA Board will need to decide if they would like to recommend a representative that could replace Brian to serve as a BACWA IRWMP representative with Cheryl Munoz and Linda Hu.

Under **agenda item 14** the ED reviewed proposed revisions to the **Arleen Navarret Biennial Award** guidelines. Mike Connor spoke on behalf of the selection panel and announced that Amanda Roa has been chosen, from a pool of highly qualified candidates, to be the this year's award recipient . The award will be presented to her at the BACWA Annual meeting in January.

For **agenda item 15**, the ED reviewed proposed **Guidelines for Representing BACWA**. The Board and other attendees expressed their support for the proposed guidelines and it was noted that it may be necessary to convey them on an annual basis to all BACWA representatives. The Board also mentioned that when representatives are speaking they should clarify whether they are expressing viewpoints from their agency or from BACWA. ED requested feedback on the proposed guidelines and will revise the document as necessary.

The **2014 BACWA Executive Board Calendar** was included in the handout packet for **agenda item 16** and the ED noted important dates for the upcoming year, including a recommended schedule for FY2015 Budget Planning.

Under **agenda item 17, ReNUWIt** representatives, Craig Criddle, Perry McCarty, and Richard Luthy provided a presentation on a mobile pilot laboratory project under development by the Stanford Resources Recovery Research Center (R3C). The cost for BACWA to participate would be a total of $300,000 for one trailer, based on a per trailer annual cost of $100,000, a student cost of $50,000 per year, for a fabrication and testing time of two years. The BACWA Board requests that the ED

circulate a draft MOU/MOA for Board review and feedback before moving forward with a decision to participate in the project.

For **agenda item 18, WERF/ReNUWIt collaboration** opportunities for BACWA were discussed. Interested agencies can participate in a conference call scheduled for January and should contact Mike Connor.

Under **agenda item 19** the ED provided an update to the Board regarding BACWA's **Nutrient** efforts.

The next regular monthly BACWA Board meeting is scheduled for, **February 21, 2014 at SFPUC, 525 Golden Gate Avenue, San Francisco.**

The meeting adjourned at 12:00 p.m.

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

January 8, 2014

MEMO TO: Bay Area Clean Water Agencies Executive Board

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

SUBJECT: Five 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 November 30, 2013** (five 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 11/30/13

DESCRIPTION	BEGINNING FUND BALANCE 07/1/13	TOTAL RECEIPTS	TOTAL DISBURSEMENTS	ENDING FUND BALANCE 11/30/13	OUTSTANDING ENCUMBRANCES	UNOBLIGATED FUND BALANCE 11/30/13
BACWA	669,142	650,968	209,111	1,110,998	294,069	816,929
TRNG FND	248,247	339	-	248,587	-	248,587
AIR	12,894	78,424	29,535	61,783	48,805	12,978
BAPPG	51,748	78,450	20,585	109,613	15,361	94,252
LEGAL RSRV	303,928	415	-	304,344	-	304,344
WQA CBC	369,481	684,019	118,839	934,661	795,864	138,797
BACWAOPRES	152,925	209	-	153,134	-	153,134
RWR	16,733	23	-	16,756	-	16,756
RESERVE	120,000	-	-	120,000	-	120,000
WOT	48,062	145,087	80,000	113,148	-	113,148
PRP84	59,109	6,031,693	3,975,155	2,115,647	47,707	2,067,940
WQA EMERG	405,238	554	-	405,791	-	405,791
TECHACTION	253,274	346	-	253,620	-	253,620
CBC OPRSRV	164,121	224	-	164,346	-	164,346
PRP50	157,852	224	9,354	148,723	23,680	125,043
	3,032,754	7,670,975	4,442,579	6,261,151	1,225,487	5,035,663

BACWA Revenue Report for November 2013

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	-	44,061	-	-	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	-	-	10,675	-	-	11,163	11,163	(488)
Bay Area Clean Water Agencies	BDO Interest Income	3,000	-	-	-	-	-	1,231	1,231	1,769
Bay Area Clean Water Agencies	BDO Assoc.&Affiliate Contr	159,000	-	3,000	-	-	154,500	-	154,500	4,500
BACWA TOTAL		**622,675**	**-**	**47,061**	**10,675**	**-**	**648,561**	**2,407**	**650,968**	**(28,293)**
BACWA Training Fund	BDO Interest Income	-	-	-	-	-	-	339	339	(339)
TRNG FND TOTAL		**-**	**-**	**-**	**-**	**-**	**-**	**339**	**339**	**(339)**
AIR-Air Issues&Regulation Grp	BDO Member Contributions	78,340	-	-	-	-	78,384	-	78,384	(44)
AIR-Air Issues&Regulation Grp	BDO Interest Income	-	-	-	-	-	-	40	40	(40)
AIR TOTAL		**78,340**	**-**	**-**	**-**	**-**	**78,384**	**40**	**78,424**	**(84)**
BAPPG-BayAreaPollutnPreventGrp	BDO Member Contributions	80,000	-	1,000	50,000	-	28,372	50,000	78,372	1,628
BAPPG-BayAreaPollutnPreventGrp	BDO Interest Income	-	-	-	-	-	-	78	78	(78)
BAPPG TOTAL		**80,000**	**-**	**1,000**	**50,000**	**-**	**28,372**	**50,078**	**78,450**	**1,550**
BACWA Legal Reserve Fnd	BDO Interest Income	-	-	-	-	-	-	415	415	(415)
LEGAL RSRV TOTAL		**-**	**-**	**-**	**-**	**-**	**-**	**415**	**415**	**(415)**
WQA-WtrQualityAttainmntStratgy	Administrative & General	-	-	-	-	1,500	-	-	1,500	(1,500)
WQA-WtrQualityAttainmntStratgy	BDO Member Contributions	675,000	-	6,357	-	-	668,658	-	668,658	6,342
WQA-WtrQualityAttainmntStratgy	BDO Other Receipts	-	1,232	-	-	3,232	-	9,987	13,219	(13,219)
WQA-WtrQualityAttainmntStratgy	BDO Interest Income	1,000	-	-	-	-	-	642	642	358
WQA CBC TOTAL		**676,000**	**1,232**	**6,357**	**-**	**4,732**	**668,658**	**10,629**	**684,019**	**(8,019)**
BACWA OperatingRsrve Fnd	BDO Interest Income	-	-	-	-	-	-	209	209	(209)
BACWAOPRES TOTAL		**-**	**-**	**-**	**-**	**-**	**-**	**209**	**209**	**(209)**

BACWA Revenue Report for November 2013

DEPARTMENT	REVENUE TYPE	AMENDED BUDGET	CURRENT PERIOD			YEAR TO DATE				UNOBLIGATED
			DIRECT	INVOICED	JVS	DIRECT	INVOICED	JVS	ACTUAL	
Regional Water Recycling	BDO Interest Income	-	-	-	-	-	-	23	23	(23)
RWR TOTAL		-	-	-	-	-	-	**23**	**23**	**(23)**
WOT - Wtr/Wwtr Operat Training	BDO Member Contributions	160,500	-	-	-	-	145,000	-	145,000	15,500
WOT - Wtr/Wwtr Operat Training	BDO Interest Income	-	-	-	-	-	-	87	87	(87)
WOT TOTAL		**160,500**	-	-	-	-	**145,000**	**87**	**145,087**	**15,413**
Prop84BayAreaIntegRegnlWtrMgmt	BDO Fund Transfers	-	-	-	-	-	-	(488)	(488)	488
Prop84BayAreaIntegRegnlWtrMgmt	BDO Interest Income	-	-	-	-	-	-	393	393	(393)
Prop84BayAreaIntegRegnlWtrMgmt	Administrative Support	-	-	-	-	-	75,885	-	75,885	(75,885)
Prop84BayAreaIntegRegnlWtrMgmt	Water Efficient Landscape Reba	-	-	-	-	-	3,647,671	-	3,647,671	(3,647,671)
Prop84BayAreaIntegRegnlWtrMgmt	Harding Park RWP	-	-	-	-	-	2,008,300	-	2,008,300	(2,008,300)
Prop84BayAreaIntegRegnlWtrMgmt	Regional Green Infrastructure	-	-	-	-	-	51,855	22,928	74,783	(74,783)
Prop84BayAreaIntegRegnlWtrMgmt	WQ Improve Flood Mgmt & EP	-	-	-	-	-	248,077	(57,716)	190,361	(190,361)
Prop84BayAreaIntegRegnlWtrMgmt	Watershed Partnership TA	-	-	-	-	-	-	24,873	24,873	(24,873)
Prop84BayAreaIntegRegnlWtrMgmt	Watershed Program Admnstrtn	-	-	-	-	-	-	9,915	9,915	(9,915)
PRP84 TOTAL		-	-	-	-	-	**6,031,788**	**(95)**	**6,031,693**	**(6,031,693)**
WQA Emergency Resrve Fnd	BDO Interest Income	-	-	-	-	-	-	554	554	(554)
WQA EMERG TOTAL		-	-	-	-	-	-	**554**	**554**	**(554)**
WQA Tech Action Fund	BDO Interest Income	-	-	-	-	-	-	346	346	(346)
TECHACTION TOTAL		-	-	-	-	-	-	**346**	**346**	**(346)**
CBC Operating Resrve Fnd	BDO Interest Income	-	-	-	-	-	-	224	224	(224)
CBC OPRSRV TOTAL		-	-	-	-	-	-	**224**	**224**	**(224)**
Prop50BayAreaIntegRegnlWtrMgmt	BDO Interest Income	-	-	-	-	-	-	224	224	(224)
PRP50 TOTAL		-	-	-	-	-	-	**224**	**224**	**(224)**

BACWA Expense Report for November 2013

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	Overpayment Refund	-	-	-	-	-	-	-	7,341	-	7,341	(7,341)
Bay Area Clean Water Agencies	BC-Collections System	26,000	(2,951)	2,951	-	-	17,460	7,540	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	-	-	-	-	25,000	-	-	-	25,000	-
Bay Area Clean Water Agencies	BC-Laboratory Committee	5,000	-	-	-	-	-	-	-	-	-	5,000
Bay Area Clean Water Agencies	BC-Miscellaneous Committee Sup	106,368	(11,901)	11,901	-	-	42,783	30,137	-	-	72,919	33,449
Bay Area Clean Water Agencies	LS-Regulatory Support	2,000	-	-	-	-	598	1,402	-	-	2,000	-
Bay Area Clean Water Agencies	LS-Executive Board Support	2,000	-	-	-	-	2,000	-	-	-	2,000	-
Bay Area Clean Water Agencies	CAS-CPSC	5,000	-	-	-	-	-	-	5,000	-	5,000	-
Bay Area Clean Water Agencies	CAS-PSI	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	-	-	1,054	-	1,500	-	4,826	-	6,326	1,494
Bay Area Clean Water Agencies	AS-BACWA Admin Expense	3,000	-	-	861	-	-	-	1,117	-	1,117	1,883
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	50,000	-
Bay Area Clean Water Agencies	GBS-Contingency	31,100	-	-	-	-	-	-	-	-	-	31,100
Bay Area Clean Water Agencies	GBS- Meeting Support	13,000	(80)	80	4,418	-	679	321	6,406	(100)	7,306	5,694
Bay Area Clean Water Agencies	AS-Executive Director	175,000	(43,750)	43,750	-	-	116,667	58,333	-	-	175,000	-
Bay Area Clean Water Agencies	AS-Assistant Executive Directo	75,000	(5,950)	5,950	-	-	40,525	32,475	-	-	73,000	2,000
Bay Area Clean Water Agencies	AS-EBMUD Administrative Servic	40,000	-	-	-	-	36,948	3,052	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
Bay Area Clean Water Agencies	CAS-Arleen Navaret Award	1,000	-	-	-	-	-	-	-	-	-	1,000
Bay Area Clean Water Agencies	CAS-FWQC	5,000	-	-	-	-	-	-	-	-	-	5,000
BACWA TOTAL		**643,539**	**(64,632)**	**64,632**	**6,333**	**50,000**	**294,069**	**133,260**	**32,836**	**43,015**	**503,180**	**140,359**
AIR-Air Issues&Regulation Grp	Administrative Support	3,900	-	-	-	3,900	-	-	-	3,900	3,900	-
AIR-Air Issues&Regulation Grp	BDO Contract Expenses	74,440	-	-	-	-	48,805	47,335	-	(21,700)	74,440	-
AIR TOTAL		**78,340**	-	-	-	**3,900**	**48,805**	**47,335**	-	**(17,800)**	**78,340**	-
BAPPG-BayAreaPollutnPreventGrp	BAPPG-CE-Fog	17,000	-	-	-	-	-	-	-	-	-	17,000
BAPPG-BayAreaPollutnPreventGrp	BAPPG-CE-Mercury	2,500	-	-	-	-	-	-	-	-	-	2,500
BAPPG-BayAreaPollutnPreventGrp	BAPPG-CE-Pesticides	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	-	-	-	-	-	-	10,673	-	10,673	10,765
BAPPG-BayAreaPollutnPreventGrp	BAPPG-CE-Other	11,500	-	-	-	-	4,999	-	3,028	(3,028)	4,999	6,501
BAPPG-BayAreaPollutnPreventGrp	Administrative Support	4,275	-	-	-	4,275	-	-	-	4,275	4,275	-
BAPPG-BayAreaPollutnPreventGrp	BAPPG-CE-Multi-Pollutant	19,000	-	-	-	-	10,362	5,638	-	-	16,000	3,000
BAPPG TOTAL		**97,210**	-	-	-	**4,275**	**15,361**	**5,638**	**13,700**	**1,247**	**35,947**	**61,264**
WQA-WtrQualityAttainmntStratgy	WQA-CE-Technical Support	896,902	(53,322)	53,322	-	-	760,914	88,789	-	-	849,703	47,199
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	(4,116)	50	-	-	34,950	50	-	-	35,000	(1,200)
WQA CBC TOTAL		**966,702**	**(57,438)**	**53,372**	-	-	**795,864**	**88,839**	**30,000**	-	**914,703**	**51,999**

BACWA Expense Report for November 2013

DEPARTMENT	EXPENSE TYPE	AMENDED BUDGET	CURRENT PERIOD				YEAR TO DATE				OBLIGATED	UNOBLIGATED
			ENC	PV	DA	JV	ENC	PV	DA	JV		
WOT - Wtr/Wwtr Operat Training	Administrative Support	2,500	-	-	-	2,500	-	-	-	2,500	2,500	-
WOT - Wtr/Wwtr Operat Training	BDO Contract Expenses	158,000	-	-	-	-	-	-	77,500	-	77,500	80,500
WOT TOTAL		**160,500**	**-**	**-**	**-**	**2,500**	**-**	**-**	**77,500**	**2,500**	**80,000**	**80,500**
Prop84BayAreaIntegRegnlWtrMgmt	Administrative Support	-	-	-	-	-	600	400	2,806	-	3,806	(3,806)
Prop84BayAreaIntegRegnlWtrMgmt	BDO Contract Expenses	-	(14,850)	14,850	-	-	47,107	24,345	-	-	71,453	(71,453)
Prop84BayAreaIntegRegnlWtrMgmt	Regional Green Infrastructure	-	-	-	14,406	-	-	-	51,855	-	51,855	(51,855)
Prop84BayAreaIntegRegnlWtrMgmt	WQ Improve Flood Mgmt & EP	-	-	-	-	-	-	-	-	(197,743)	(197,743)	197,743
Prop84BayAreaIntegRegnlWtrMgmt	Water Efficient LRP	-	-	-	38,033	-	-	-	183,820	-	183,820	(183,820)
Prop84BayAreaIntegRegnlWtrMgmt	Bay Friendly Landscape TP	-	-	-	10,733	-	-	-	17,082	-	17,082	(17,082)
Prop84BayAreaIntegRegnlWtrMgmt	Weather Based Irrigation Cntrl	-	-	-	27,095	-	-	-	81,230	-	81,230	(81,230)
Prop84BayAreaIntegRegnlWtrMgmt	High Efficiency Toilet & UR	-	-	-	863,210	-	-	-	863,210	-	863,210	(863,210)
Prop84BayAreaIntegRegnlWtrMgmt	High Efficiency Toilet & UI	-	-	-	578,722	-	-	-	1,035,085	-	1,035,085	(1,035,085)
Prop84BayAreaIntegRegnlWtrMgmt	High Efficiency Clothes Washrs	-	-	-	1,401,879	-	-	-	1,401,879	-	1,401,879	(1,401,879)
Prop84BayAreaIntegRegnlWtrMgmt	Napa Co. Rainwater HP	-	-	-	2,023	-	-	-	15,001	-	15,001	(15,001)
Prop84BayAreaIntegRegnlWtrMgmt	Conservation Program Admin	-	-	-	13,095	-	-	-	50,363	-	50,363	(50,363)
Prop84BayAreaIntegRegnlWtrMgmt	Watershed Partnership TA	-	-	-	22,981	-	-	-	65,151	36,290	101,441	(101,441)
Prop84BayAreaIntegRegnlWtrMgmt	Stream Restoration in North BD	-	-	-	-	-	-	-	30,250	149,491	179,741	(179,741)
Prop84BayAreaIntegRegnlWtrMgmt	Flood Infrastructure Mapping T	-	-	-	3,199	-	-	-	7,063	2,047	9,110	(9,110)
Prop84BayAreaIntegRegnlWtrMgmt	Stormwater Improvements & PBP	-	-	-	25,909	-	-	-	30,326	-	30,326	(30,326)
Prop84BayAreaIntegRegnlWtrMgmt	Pescadero Integrated FRAH	-	-	-	21,404	-	-	-	21,404	-	21,404	(21,404)
Prop84BayAreaIntegRegnlWtrMgmt	SF Estuary Steelhead MP	-	-	-	48,277	-	-	-	72,834	-	72,834	(72,834)
Prop84BayAreaIntegRegnlWtrMgmt	Watershed Program Admnstrtn	-	-	-	6,850	-	-	-	21,050	9,915	30,965	(30,965)
PRP84 TOTAL		**-**	**(14,850)**	**14,850**	**3,077,814**	**-**	**47,707**	**24,745**	**3,950,409**	**-**	**4,022,862**	**(4,022,862)**
Prop50BayAreaIntegRegnlWtrMgmt	Administrative Support	-	-	-	-	-	975	25	-	(7,322)	(6,322)	6,322
Prop50BayAreaIntegRegnlWtrMgmt	BDO Contract Expenses	-	(2,393)	2,393	-	-	22,705	4,073	-	-	26,778	(26,778)
Prop50BayAreaIntegRegnlWtrMgmt	EBMUD Ca. Waterstar Initiative	-	-	-	-	-	-	-	7,322	-	7,322	(7,322)
Prop50BayAreaIntegRegnlWtrMgmt	EBMUD Richmond RWP	-	-	-	-	-	-	-	8,448	(8,448)	-	-
Prop50BayAreaIntegRegnlWtrMgmt	Redwood City RWP	-	-	-	3,285	-	-	-	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	(1,971)
PRP50 TOTAL		**-**	**(2,393)**	**2,393**	**5,257**	**-**	**23,680**	**4,098**	**26,587**	**(21,331)**	**33,034**	**(33,034)**

BACWA EXECUTIVE BOARD ACTION REQUEST

AGENDA NO.: 3

FILE NO.: 13,150

MEETING DATE: February 21, 2014

TITLE: Contribution to BASMAA for BAPPG IPM Partnership

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

RECOMMENDED ACTION

Authorize contribution to BASMAA from BAPPG, in an amount not to exceed $10,000.00, to continue support for the Regional Integrated Pest Management (IPM) program during Fiscal Year 2013-14.

SUMMARY

This contribution from BAPPG supports the Regional Integrated Pest Management (IPM) Our Water Our World program. The purpose of the Our Water, Our World (OWOW) program is to raise awareness of the connection between pesticide use and water quality and provide information to consumers at the point-of-purchase about the toxicity of some compounds found in commercial products and the availability of less-toxic alternatives. BASMAA manages collection and disbursement of funds for this program.

FISCAL IMPACT

This project was included in the BAPPG FY 2013-14 budget and workplan and sufficient funds are available in the BAPPG account.

ALTERNATIVES

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

Attachments:
1. BASMAA IPM invoice FY14

B A S M A A
Bay Area Stormwater Management Agencies Association

P.O. Box 2385
Menlo Park, CA 94026

Invoice

Date	Invoice #
2/5/2014	2014-16

Bill To
Bay Area Clean Water Agencies PO Box 24055, MS702 Oakland, CA 94623

Description	Amount
BAPPG - IPM Partnership Program XV	10,000.00

Please remit to above address.

Total **$10,000.00**

BASMAA is a 501(c)(3) non-profit corporation. BASMAA Tax payer ID number is 26-4061031.

BACWA AIR Committee Board Report, 2/21/14 (no committee meeting)

Annual Meeting - BAAQMD and BACWA AIR Committee

- Wednesday, February 26th, 10:00 am – 1:00 pm
- Bay Area Air Quality Management District Headquarters
- Agenda
  - o BAAQMD GHG Climate Protection
  - o Engine Presentation – Review of stationary engine regulations
  - o Particulate Matter (PM) Presentation
  - o Brief discussion regarding:
    - Permitting application review process & timelines
    - Updating facility data in the BAAQMD database

1

BAAQMD: Fee Increase Effective on July 1, 2014

- Purpose: help District recover greater share of the costs of implementing and enforcing regulatory programs for stationary sources of air pollution
- 3% Fee Increase:
  - new and modified source filing
  - Banking
  - alternate compliance plans
  - permit to operate renewals
- Fee increases associated with various schedules in Regulation 3 would vary between 2% and 9%
- Public workshop to discuss proposed fees – Feb. 18, 2014 at 10am
- http://www.baaqmd.gov/Divisions/Planning-and-Research/Rule-Development/Rule-Workshops.aspx.

2

Deadline to Register Refrigeration Systems

- Facilities with a single largest system with a full charge ≥ 200 pounds of high global warming potential refrigerants:
  - chlorofluorocarbons (CFCs)
  - hydro chlorofluorocarbons (HCFCs)
  - hydrofluorocarbons (HFCs)
- Facilities must register their refrigeration system with the California ARB by March 1, 2014
- Facilities with 50-200 lbs of high-GWP refrigerant must register in 2016
- Online registration and reporting tool: www.arb.ca.gov/rmp-r3

3

CalRecycle Organics Grants/Loans Workshop

- Promote infrastructure development for facilities in California that divert more materials from landfills, achieving greenhouse gas emissions reductions
- Grants/loans targeted to build or expand organics infrastructure, such as composting and anaerobic digestion, or reduce food waste in California. Approximately $30M will be available in grants and loans.
- Meeting documents are available at http://www.calrecycle.ca.gov/Actions/PublicNoticeDetail.aspx?id=1138&aiid=1039

4

BAPPG Committee Report to BACWA Board

Meeting Date: February 5, 2014
Prepared By: Karri Ving, SFPUC
BAPPG Chair

Committee Request for Board Action

None

Committee Updates

BAPPG General Committee Meeting on February 5, 2014

- BAPPG's Regional Board contact will be changing February 19th, as Dylan Garner has accepted an employment opportunity with the San Francisco Municipal Transportation Agency (SFMTA). Regional Water Board BAPPG and Pollution Prevention related responsibilities will be managed by Bill Johnson in the interim of securing a replacement.
- P2 Report Subcommittee action items are on hold and will commence once Dylan Garner's position is filled. The subcommittee will then send inquires to the group to gather information to develop P2 reporting recommendations for effective P2 reporting criteria. The final recommendations will be a representative summary of all BAPPG members.
- Janet Cox is submitting a BASMAA application for the Pest Management Alliance Grant Concept 2014015 Solicitation for "IPM Focus on Multi-Family Buildings: A Pilot". The concept proposal is due Thursday, February 7, 2014, and BAPPG member agencies can reach out directly for more information and/or to partner in efforts.
- April meeting will be a BAPPG and BACWA Biosolids Committee co-meeting meet and greet. The meeting will provide an opportunity for the groups to understand what each committee's goals are and to explore working collaboratively to support common goals.
- June meeting will be an Integrated Marketing Planning Workshop to design the 2014-15 outreach plan working with Social Marketing Consultants. The meeting will provide an opportunity to review the process for integrating a communications plan for all projects and to arrange for cohesiveness in messages between projects and target audiences as well as to leverage available resources.
- Guest speaker Kelly Moran, Ph.D. and President of TDC Environmental, LLC presented on the impacts of Fipronil to stormwater and wastewater quality. Topics included Fipronil sources, toxicity levels, potential POTW concerns, regulatory context and next steps.

Current Project Summary

Project	Description	Timeline	Status
Social Marketing Contract	A social marketing contract is being pursued to better coordinate outreach, and provide professional social media outreach for current and future projects. Budget based on existing project needs.	December 2013 – February 2014	• Distributing RFP and will request Board approval of a contract at March 21 meeting • Proposed workshop scheduled for June BAPPG meeting.
Our Water Our World (OWOW)	A regional Integrated Pest Management partnership between	January 2014-ongoing	• In the process of updating OWOW

Revamp	local government agencies and businesses to reduce water pollution caused by pesticieds. OWOW is contracted through BAPPG as well as by individual agencies.		logo and materials • Home Depot is expanding 'Less Toxic Product' campaign to 9 stores after seeing shift in sales towards campaign products and away from toxic pesticides.
Safe Disposal of Pharmaceuticals Grant Opportunity	San Jose is jointly submitting two grant proposals from the Santa Clara Valley Water Distric to establish 50 pharmaceutical take back sites in San Jose region, and to develop public education regarding current threat of chemicals to SF Bay.	February 2014 - ongoing	• Waiting to hear if proposal accepted
Spanish Holiday FOG Campaign	60 PSAs on residential FOG disposal scheduled (rather than previous year's 90) through Univision media. Leveraging activities occuring at local markets to futher the campaign outreach in East and south Bay regions.	Thanksgiving 2013 – New Year 2014	• Wrapped Up • Total of 288 campaign audio stream and on air PSA spots • Univision has offered to distribute other BAPPG materials at upcoming events
Operation "Big-Wipe"	A State-wide case is being developed by multiple agencies, some of which are members of BAPPG, to remove "flushable" from wipes packaging	December 2013 - ongoing	• SFPUC seeking municipalities and agencies to partner on case • SFPUC hosting treatment plant and sewer system tour for representatives from the Federal Trade Commission and San Francisco Police Department to show pipes and infrastructure most prone to wipe clogs
Baywise Website Management Training	Baywise website subcommittee is working on improving the Baywise website so that it can properly	December 2013- ongoing	• Website style guide developed to facilitate new

	function as a clearing house and central location for all P2 information in the Bay Area		content development and ensure consistent voice • Subcommittee will request new content at every monthly meeting

Date of Next BAPPG Meeting

BAPPG Steering Committee Meeting
March 6, 2014: 9:00am-10:00am
Conference Call

BAPPG General Meeting
April 9, 2014: 10:00am-12:00pm
1515 Clay Street, Second Floor, Room 12
Oakland, CA

Save the Date!

April 2, 2014

"P2 and Biosolids Team Up"

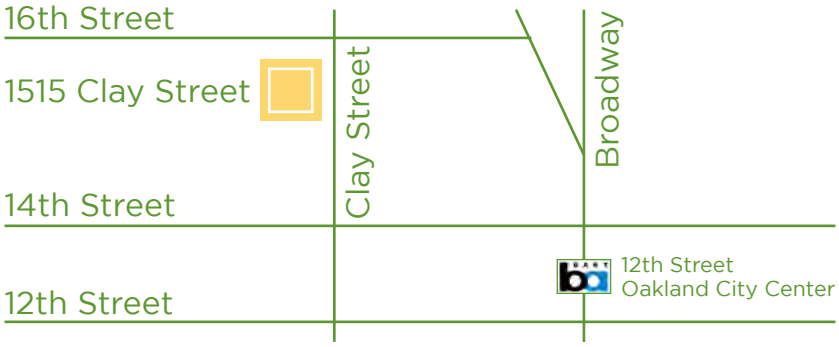
BAPPG and the BACWA Biosolids Committee will be holding a joint meeting to discuss the intersection between pollution prevention and biosolids management. Natalie Sierra (RMC Water and Environment) will deliver a short presentation on biosolids basics, including a look at fate and transport, how EPA sets biosolids regulations, and biosolids constituents of concern. An open discussion of how P2 can help biosolids managers provide the highest quality product for reuse will follow.

Time: 10:30 AM-12 PM

(Please allow additional time to pass through building security)

Location

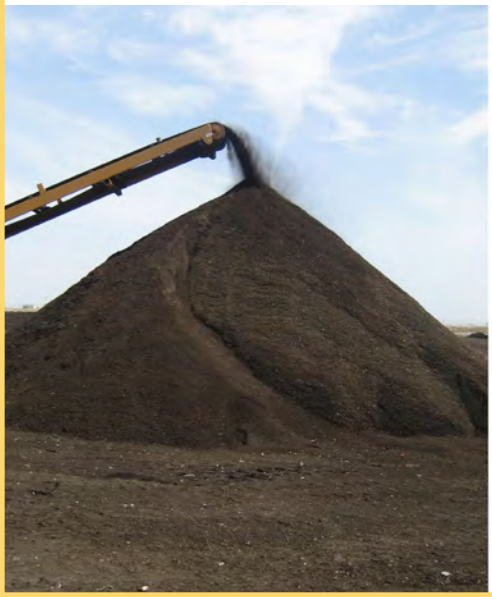
Elihu Harris State Building | 1515 Clay Street, Oakland | 2nd Floor, Room 12



Workshop sponsored by BAPPG (Chair: Karri Ving) and the BACWA Biosolids Committee (Chair: Matt Krupp)

Light refreshments provided courtesy of

RMC water and environment



Collection Systems Committee Report to BACWA Board

February 14, 2013
From: Dan Stevenson, Committee Chair
Prepared By: Monica Oakley

Committee Request for Board Action: None

Highlights of New Items Discussed and Action Items

State Water Board Considering Mandatory Reporting of Private Sewer System Overflows by Public Agencies

State Water Board members and staff have received information from the San Diego Regional Water Board indicating that mandatory reporting by public agencies of observed sanitary sewer overflows from private sewer systems has improved water quality in the region. Committee Chair Dan Stevenson (City of Sunnyvale) and Monica Oakley (RMC) attended a meeting on February 7 in Sacramento with CASA staff Bobbi Larson and Adam Link, to discuss this and other sanitary sewer overflow (SSO) sampling and reporting issues with State Water Board members (Tam Doduc and Fran Spivy-Weber) and staff. Bobbi Larson pointed out at this meeting that there may be some uncertainty regarding whether this is good public policy in the short term.

State Water Board staff indicated they intended to open the Sanitary Sewer System (SSS) General Waste Discharge Requirements (WDR) within the next 2-3 years. BACWA will continue to monitor progress on this issue, which was also discussed with BACWA members at the February 13 committee meeting.

Committee Developing SSO Water Quality Monitoring Program Plan Template

Water quality sampling is now required for SSOs greater than or equal to 50,000 gallons under the updated Monitoring and Reporting program (MRP) of the SSS WDR. Agencies are required to develop a Water Quality Monitoring Program Plan so staff are ready to conduct the sampling if and when it is needed. The BACWA Collection Systems Committee prepared a draft template, received comments from committee members, and is in the process of finalizing a final template, as an aid for members as they develop these plans.

Potential Tech Topics for Future Committee Meetings

During the January 16 and February 13 Collection Systems Committee meetings, attendees brainstormed and voted for technical topics that could be discussed at future meetings. Technical topics receiving the most votes included: (1) efficiency and efficacy of root control; (2) how to report and deal with back-ups in private buildings (residences, etc.); (3) sewer lateral insurance programs; (4) use of handheld devices in the field; and (5) CCTV data management and quality control.

USEPA is Proposing New Electronic Reporting Program

USEPA released an Advanced Notice of Proposed Rulemaking (ANPR) July 30, 2013, which would require agencies with an existing NPDES permit to report SSOs to a federal database. An allowance is provided for states with existing electronic reporting systems to qualify as a component of the federal system under certain conditions. However, as of Fall 2013, State Water Board staff had indicated that the State Water Board was not currently seeking Cross-Media Electronic Reporting Regulation (CROMERR) (federal) approval for the SSO portion of the CIWQS database because it did not have funding to upgrade to new security features being required. CASA submitted a comment letter December 11, 2013 on the ANPR requesting that USEPA accept CIWQS as an approved method to report SSOs. BACWA will continue to follow developments on this issue.

Next Collection System Committee Meeting

Our next committee meeting will be held on March 6 at 1:30 PM at the Boy Scouts facility in San Leandro.

Laboratory Committee – Report to BACWA Board

Laboratory committee meeting on: 13 February 14
Executive Board Meeting Date: 21 February 14
Committee Chair: Nirmela Arsem

Committee Request for Board Action: None

15 attendees representing 12 BACWA member agencies as well as Vacaville and Sac Regional (SRWTP) attended the meeting.

Focus topic – 12 elements of QA/QC as described in the Methods Update Rule (MUR):

- Copy of the 12 QA/QC elements as described in 40 CFR was distributed; members also brought examples of SOPs. It was affirmed that these elements are required only if the method being followed does not address QA/QC protocols in detail. Members acknowledged that bench level staff buy-in could be difficult if SOPs are lengthy. Options for working bench SOPs and version control for all SOPs were also discussed. The SOP elements described by National Environmental Laboratory Accreditation Council (NELAC) were discussed with an example used by SFPUC laboratory.
- The extent of implementing these QA/QC elements in the field monitoring data was discussed. If the field data is being reported as part of a regulatory report, and the method being used is covered by Method Update Rule, then QA/QC standard needs to meet these criteria. The difference between calibrating instruments for field use and checking performance in the field with QC samples was also emphasized.

Laboratory Information Management System (LIMS):

- Several agencies are implementing new LIMS to streamline their operations. Each shared their experience using the LIMS, such as suitability for a utility laboratory, compatibility with other sources of data besides laboratory, ability to produce custom reports, sample management, and data mining. Promium, ChemWare, ATL- Titan, HACH WIMS, StarLIMS, WaterTrax and home-grown LIMS were discussed. Some of the smaller agencies are relying in Access database or spreadsheets to manage their data.

ELAP:

- EBMUD laboratory was audited by ELAP in January. Three auditors covered the laboratory for two days. So far audit reports for general chemistry, metals and organics have been received; microbiology and toxicology are pending. Overall, there were no deficiencies; minor findings included temperature control for TCLP extraction room. The audit report included two finding that were incorrect and not discussed during the exit interview. Discrepancy between exit interview and audit report was also reported previously by other agencies.

- California ELAP has voluntarily withdrawn from the nation accreditation program, NELAC. Those laboratories in California that were certified under NELAC through ELAP have been picked up by either Nevada or Oregon. Members were advised to check with out of state contract laboratories to make sure their NELAC certification will be recognized in California.

Annual work plan status:

Date	Topic	Status
Aug-13	Needs assessment	Completed
Sep-13	Work plan consensus and development	Completed
Oct-13	NPDES permit related reporting	Completed
Nov-13	Nutrient watershed permit - monitoring requirements, discussion with David Senn	Completed
Dec-13	Nutrients - presentation by Mary Lou & Holiday celebration	Completed
Jan-14	Ethics training for field and laboratory	Completed
Feb-14	Elements of an SOP as required by Method Update Rule (MUR)	Completed
Mar-14	Data review guidelines	
Apr-14	How to acquire Alternate Test Procedure certification	
May-14	GLP: log books	
Jun-14	New technologies	

Next BACWA Laboratory Committee Meeting: Wednesday, March 12, 2014, at EBMUD Laboratory Library.

Permits Committee – Report to BACWA Board

Permits Committee Meeting on: 1/14/14 and 2/11/14
Executive Board Meeting Date: 2/21/13
Committee Chair: Tim Potter
Committee Vice-Chair: Meg Herston

Committee Request for Board Action: None

1/14/14 Permits Committee Meeting - 20 attendees representing 9 BACWA member agencies

Adoption of Permits/Permit Amendments:

March – Sonoma Valley County Sanitation District – There are issues with chronic toxicity testing. Sonoma wants to change their test species to Ceriodaphnia, which will be a preferred species one the Toxicity Plan is adopted, but isn't being allowed to because of some errors in the species screening testing.

April - South San Francisco/San Bruno – The Regional Water Board said they would remove the no feasible alternatives analysis requirements.

Presentation on updated PCBs sampling, analysis and reporting protocols

- The Protocols were updated December 31, and are available here. Mary Lou Esparza from CCCSD gave a presentation on behalf of the Laboratory Committee, explaining the updated protocols:
  - There was high variability between grab samples, so sample duplicates are no longer required
  - The resin housing from the extraction was causing blank contamination, so the lab using it has discontinued using those resins
  - A new protocol has put criteria in place to accept low data points that can be reported
    - A blank sample can no longer be greater than 20 pg/L
    - Ten consecutive samples must have blanks below the threshold limit
    - There are new qualifiers to help facilitate the eventual reporting of PCB congeners into CIWQS
    - A comparison chart showing the differences between the original and the updated protocols is available in the presentation

Report out from the 12/20/13 Executive Board Meeting

- ReNUWIt gave a presentation requesting funding for mobile process units. These would be process units housed in trailers that could be moved between BACWA member POTWs to test innovative new technologies.
- BACWA is going to be putting together a nutrient-themed proposal for Proposition 84 Round 3 grant funding. The elements of the proposals will be (1) moored sensors for measuring nutrients and phytoplankton in the Bay; (2) Full scale demonstration testing of sidestream treatment; (3) mobile process units (ReNUWIt); (4) Wetlands for nutrient treatment and sea level rise mitigations; and possibly (5) Recycled water projects.

Nutrients:

- *Watershed permit negotiations update* – The administrative draft was circulated to the Permits Committee. BACWA representatives met internally on 1/10 to discuss it. There are no fatal flaws, but we have significant comments. BACWA was to meet with Regional Water Board to discuss comments on 1/21. Two of the key comments are that we should not be required to do pilot studies, and the upgrade study will not be in sufficient detail to lead to design specifications. The annual reporting section should specify that we only provide analysis on "significant" trends, so we don't spend effort reporting on noise. BACWA will propose a dollar figure for the optimization and upgrade studies that will dictate the level of effort. There was also discussion about how the Clean Water Act doesn't give authority on mandating climate change adaptation reporting. Request made that people route their comments on this administrative draft through the negotiation team (either your subembayment representative or Lorien). Individual agency comments can be made when the TO is released.
- *Governance* – Talks continue as part of the BACWA/Regional Water Board Task force. Dave Ceppos has put together a draft charter for the Governance committee that is being reviewed. They are now reaching out to other stakeholders to see if they're interested in participating.

North Bay Selenium TMDL

- Barbara Baginska held a meeting at the Regional Water Board offices earlier in the day. Her presentation is here. Barbara is using an 8µg/g dry weight fish tissue objective, measured in muscle tissue. There is concern with both the science behind the fish tissue objective and the partitioning coefficients and trophic transfer factors which lead to the calculation of dissolved water concentration. The majority of selenium loads to the Bay come from rivers, which can't be controlled, whereas while POTWs contribute a tiny fraction, they are considered controllable yet there are very few controllable Se sources. The tentative dissolved concentration they have arrived at is between 0.15 and 0.2 µg/L, which is above most concentrations measured in the North Bay. However, some North Bay POTW's effluent has higher selenium concentration which could be a problem since selenium is bioaccumulative and any limits would be calculated without dilution. The Regional Water Board is accepting input on both the science and the implementation strategy for the next couple of months. Selenium will be discussed at the RMP meeting at the end of January.

Stormwater Diversions

There was a discussion on impediments to implementing stormwater diversions, following last month's discussion. There is minimal PCB capture for the cost. Other drivers such as pesticides in "urban slime", microorganisms and low DO might be better drivers. Daly City doesn't have the institutional barriers that special Districts have (they are both stormwater and POTW) but they won't do diversions because there's no advantage to them, and they are not given any concessions in their discharge permits. In general, attendees were fine with accepting wet well pump-out with low DO. Tim Grillo suggested that it be permitted like any other discharge – for example, a construction dewatering permit. Tim Potter will summarize the group's thoughts at the joint BACWA/Regional Water Board meeting on 2/7.

Informational Items/Announcements

- Members' meeting – The meeting is January 30 at the Boy Scouts Council in San Leandro. More information and the agenda will be posted on the web when available.
- CASA and Tri-TAC, with involvement from BACWA members, submitted a comment letter on USEPA's electronic reporting proposed rule.
- BACWA has submitted its NPDES compliance letter on behalf of its members.

Next BACWA Permits Committee Meeting: Tuesday, February 11th, 2014, at EBMUD Plant Library.

2/11/14 Permits Committee Meeting - 23 attendees representing 12 BACWA member agencies

Adoption of Permits/Permit Amendments:

March – Sonoma Valley County Sanitation District – This permit has been postponed until the May Board Meeting since they will be adding ammonia limits, and the Regional Water Board will renotice it. All shallow water dischargers are required to have ammonia limits per an unofficial policy document by Tong Yin (Denise will try to find it). Sonoma's limits will likely be performance-based.

April - Nutrients Watershed Permit

South San Francisco/San Bruno – The Regional Water Board gave them the option of either conducting a no feasible alternatives analysis (NFAA) for blending, or requesting permission to blend prior to a blending event. Because SSF/SB has already completed their NFAA, they selected that option. In general, the EPA does not believe that the 8th circuit court ruling applies nationwide, and we will likely continue to see blending requirements in our region. Since agencies in Region 2 do not find these requirements to be onerous, no one is planning to challenge them.

Report out from Annual Meeting

- BACWA's Annual Members' Meeting took place on January 30, 2014. Presentations are online. Some highlights from one of the speakers, Dave Smith, EPA Region IX were:
  - EPA will probably drop their proposed dental amalgam rule although Tim is not 100% convinced since Region IX and HQ have not been in alignment on this proposed rule in the past
  - EPA is pleased with San Francisco Bay Area progress on nutrients
  - EPA is still planning to promulgate Selenium Criteria for the Bay/Delta
  - Rolling out the Toxicity Plan in 2014 is a priority
- Steve Moore of the State Water Board made the toxicity Plan sound like less of a priority. He mostly spoke about drought response and invited ideas to facilitate water recycling in the near term.

Report out from the NACWA Winter Conference

- A major take-home message was that in many regions, dischargers have a less collaborative relationship with regulators, which results in problematic permitting. For example, in New Mexico, they have introduced water quality criteria for nutrients that are below the limits of the technology.
- There is a newly formed "Watershed Trading Alliance". They will work with regulators and aim to figure out how nutrient trading would work.
- There was a discussion on flushables. Wipes are problematic even if they disperse and don't cause problems in the collection system, since they still contain plastics that end up in biosolids.
- A woman from the DEA gave a presentation about expected regulations (March 2014) to facilitate drug take-back programs that include controlled substances.

Joint Meeting with Regional Water Board Staff (2/7/14)

- *IRWMP BACWA Nutrients Proposal* – Staff were cautiously supportive of the concept of BACWA's proposal. They are on the project screening committee and can't show favoritism.
- *Blending* – No changes planned in Region 2 per 8th Circuit Court Ruling.
- *Selenium* – Regional Board staff state they don't plan to cause compliance problems for POTWs, and the TMDL will be a net benefit for our community because it will give regulatory certainty.
- *Drought Response* – They are pushing for increased recycling, particularly for vineyards and livestock. There was discussion at the permits meeting that the Department of Food and Agriculture has jurisdiction over livestock.
- *Risk Reduction* – Regional Board Staff asked BACWA if we'd be willing to fund community-based grants. Also, they asked us to propose a dollar figure for this permit term. BACWA committed to communicating with BASMAA and WSPA.
- *Emerging Contaminants* – Tom Mumley wants to make sure we have good POTW participation for effluent testing through the RMP. Karin North is coordinating this project.
- *Stormwater Diversion* – Tom was more receptive to BACWA's concerns once he saw we also had suggestions on ways to mitigate them. Ultimately, stormwater agencies have claimed that POTWs are blocking diversions, but there don't seem to be any instances where stormwater agencies have approached a POTW with a specific diversion proposal that was actually denied. There was a discussion of the overall cost effectiveness of diversions as a way to reduce Hg and PCB loads. Also, there are a very small number of high opportunity areas where "hotspots" are near a sanitary sewer. BASMAA will be submitting a report the Regional Water Board with their findings from the diversion pilot projects, and Tom will consider those results before approaching POTWs again.

Nutrients

- *Watershed Permit* – The tentative order has been posted for review. The TO has some positive changes incorporated from the administrative draft circulated in January. BACWA requests that member agencies keep us apprised of their comments (if any). BACWA will be putting together an official comment letter following the internal negotiating team meeting on 2/14, and the letter will be distributed to the Permits Committee.
- *Governance* – The facilitator, Dave Ceppos, will bring a revised Charter to the group and will start sending out invitations to prospective Steering Committee members. Once everyone starts meeting, the group goes from a "Task Force" to a "Steering Committee". Initially, they will meet monthly then transition to quarterly.
- *Assessment Framework Meeting 2/4* – Martha Sutula and Naomi Feger are committed to engaging stakeholders in the process, although their science team meeting is still closed-door. There was a discussion at the committee about how the various parameters (such as phytoplankton community structure) are problematic, and the uncertainties involved in using them as metrics of impairments.

Informational Items/Announcements

- The California Pyrethroid Survey report is now available.
- Next Tri-TAC meeting is 2/13 in San Leandro – Tri-TAC will now be the regulatory committee of CASA, but it will remain open to non-CASA members. One of the topics on the agenda will be the proposed NPDES permit for water systems which would regulate potable spills like SSOs.
- The April and October meetings will be rescheduled. Tim will send out a doodle poll.

Next BACWA Permits Committee Meeting with RWQCB: Tuesday, March 11th, 2014, at EBMUD Plant Library.

Pretreatment Committee – Report to BACWA Board

Pretreatment Committee Meeting on: 1/27/2014
Executive Board Meeting Date: 2/21/14
Committee Chairs: Tim Potter, Kirsten Struve

Committee Request for Board Action: None

1/27/14 Pretreatment Committee Meeting – 22 attendees representing 19 agencies

1. Committee Formation
    - Tim provided an update on approval of the charter and budget for the committee
    - Charter was sent to committee distribution list
    - Tim and Kirsten will work on webpage on BACWA website to share minutes/documents.
    - Interest in having regulators (RWQCB and EPA) invited once a year or more frequently if needed
2. PCA/PCI Debrief
    - PCA/PCI debrief will be a standard component of each agenda
    - Issues related to definitions, chain of custody forms, representative sampling
    - Concern regarding requests by auditors to include small additions to ordinances which are difficult to amend. Request that this concern be expressed to USEPA (Amelia Whitson). Tim acknowledged request but indicated he would wait to see if other concerns arise from discussions (revisit after April meeting).
    - Concern about requirements that have no foundation in the regulations
3. Streamlining Rule
    - Discussion of use of Non-Significant Categorical Industrial User (NSCIU) vs. Zero Discharge: Several agencies have included definition in their ordinances; some are implementing (still issuing permits). Issue for new facilities to be in "consistent compliance" for two years before qualifying for NSCIU standards; how to document compliance status for a new facility?
    - All agencies participating at the meeting have implemented the mandatory portions of the Streamlining Rule.
4. Resource Sharing
    - Discussion of developing a template to share information about the various pretreatment programs (Michael and Kirsten to develop)
    - Discussion of hospital waste grinders in new construction as well as pet mortuary discharges from new technology (BOD and pH concerns)
5. CERS Accessibility to replace business plans
6. Next meeting: April 14, 2014; 10 – noon at Union Sanitary

Future Meeting Topics

- Cross media electronic reporting (wet signature requirements)
- pH
- SIU criteria
- Resource sharing template
- Local limits evaluation
- Data management systems

Recycled Water Committee – Report to BACWA Board

Recycled Water Committee Meeting on: 2/5/14
Executive Board Meeting Date: 2/21/14
Committee Chair: Cheryl Muñoz

Committee Request for Board Action: None.

22 attendees (incl. 7 on phone) representing 9 BACWA member agencies, 3 water agencies. Notes from the 1/13 and 2/5 meetings are posted online.

Round 2 Prop 84 Updates
Round 2 projects got final approval on 2/4.

Round 3 Prop 84 Updates
Regional concept submittal deadline is March 31. Subregional concept submittal deadline is April 30. Regional and subregional projects will both be allocated a range of $20-50M in the Bay Area proposal. There will be at least five regional projects submitted: 1) The BACWA nutrients proposal, 2) 3a pipeline transfer to Bethany Reservoir (Contra Costa Water District), 3) Shoreline Sustainability, 4) NOAA precipitation forecasting, and 5) regional conservation. Recycled water projects will tentatively be included in the BACWA regional proposal. Cheryl and Linda will put together template for information for proposed projects, and submit the information to Lorien by 2/13.

BAIRWMP Updates
The DWR is taking longer than anticipated for their BAIRWMP review. It's recommended that Agencies/Cities adopt the current version and allow for minor editorial changes later. Additionally, there are concerns that the Plan isn't "integrated" enough.

Legislative Updates
Drinking Water Program reorganization update
The State is moving forward with administrative changes. There was a public meeting on 1/15. There was a paper circulated by Bahman Sheikh comparing California to Florida. Florida has a single State Agency that governs potable, recycled water, and waters of the State. They use >50% of their wastewater for recycling, and their permits get adopted 3-5 times as quickly as in California. It is hoped that consolidating all these programs in California will help facilitate recycled water projects here.

Drought Response
The governors office contacted Dave Smith of WateReuse asking if there were any near term administrative actions (12-16 months) to encourage the use of recycled water, in response to the drought. There were five areas in the letter to the State from WateReuse. See letter. At BACWA's Annual Meeting Steve Moore exhorted our community to "think bigger" about our drought recommendations.

Please see Meeting notes for other Legislative updates.

Salt/Nutrient Management Plans (SNMPs)
There were two presentations on SNMPs.

a. Alec Naugle - *Overview from the Regional Water Quality Control Board* (link to presentation). This presentation went over the Regional Water Board's process of putting together the Region's first three SNMPs. The three initial priority basins are Santa Clara Valley, Livermore Valley and Sonoma Valley. Each of these have a single administrative entity for the Regional Water Board to work with. The other 25 basins are expected to put together SNMPs eventually, particularly before a recycled water project is approved by the Regional Water Board.
b. *Sonoma Valley Salt Nutrient Management Plan – Dave Richardson and Christy Kennedy from RMC (Link to presentation).* There were two parts of this presentation – 1) The steps they used to develop Sonoma Valley's SNMP. 2) The template they put together for other basins to develop SNMPs. There are offramps built in at various steps: 1) if there are limitations for groundwater as MUN or AGR, and 2) if no exceedence of WQOs are projected. It was also discussed that we should also be looking at developing a SNMP offramp for *de minimis* recycled water loadings – i.e. where the recycled water salt and nutrient loading contribution is tiny compared to the overall applied water loadings to the groundwater basin.

There was a discussion about SNMP offramps and the cost to get to them. Also, in light of the drought, there were questions about whether the Regional Water Board would really hold up recycled water projects in the absence of an adopted SNMP. Their response was that they would try to be flexible, but ultimately projects would need to answer questions about the impact of their operations on the assimilative capacity of the groundwater basin.

Next BACWA Recycled Water Committee Meeting: March 5, 2014 from 10:00 am to 12:00 pm, 6th Floor Conference Room at EBMUD Headquarters

Executive Director's Report to the Board

January/February 2014

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

-Attended the fourth Governance Task Force Meeting focused on providing feedback to the facilitator on the draft Charter

-Attended the fifth Governance Task Force Meeting where final changes were made to the Charter and a date set for the kickoff of the Governance Structure including the first Steering Committee meeting

-Organized and conducted an internal Nutrient Negotiating Team Meetings to discuss recommendations for the Watershed Permit. Subsequently met with the Water Board to go over comments on the Tentative Order. Finally prepared a draft comment letter on the TO.

-Organized the IRWM BACWA planning meeting to discuss interest in BACWA submitting a regional grant proposal focused on nutrients. Held subsequent conference calls with the BACWA Team to organize the IRWM Prop 84 proposal due March 31st.

-Attended the IRWM Coordinating Committee meeting and participated in the Project Selection Committee conference call.

-Worked with HDR to develop a Scope of Work that could be utilized in an RFP for conducting the Optimization and Upgrade studies required by the watershed permit.

BACWA BOARD MEETING:

-Worked with the AED in preparing the January Annual Membership Meeting and the February monthly BACWA Board agenda including reviewing the agenda with the chair.

-Worked with the BACWA AED, RPM and Committee chairs to hold the very successful Annual meeting with over 110 attendees including BACWA members, regulators, consultants and other stakeholders.

-Attended the BACWA Board meetings and worked with the AED in preparing minutes and action summary.

-Prepared for and conducted the January Special Board meeting to obtain feedback on a number of pressing Board issues.

-Planned for and conducted the bi-monthly Joint BACWA/WB meeting with topics focused on risk reduction, stormwater diversions, emerging contaminants, and nutrients.

-Continuing to track all action items to completion.

ASC/SFEI:

-Participated in conference calls regarding Governance committee activities

-Coordinated with the Interim Executive Director on a variety of BACWA issues

FINANCE COMMITTEE:

-revised the BACWA budget presentation format and presented the draft FY15 Budget to the Finance Committee

-discussed with the BACWA attorney the consolidation of the BACWA reserve funds into a more manageable and meaningful number of reserve funds. This can be done with a Board resolution which will be presented at the March Board meeting.

CASA: Coordinated with the CASA Executive Director on planning for and conducting the Utility Leadership Committee meeting at the CASA Mid-Year conference. Set priorities for the four ULC Workgroups.

Tri-TAC: Attended the last official TriTAC meeting before it became incorporated into the CASA Regulatory Workgroup under the Utility Leadership Committee

PERMITS COMMITTEE: Attended the monthly Permit Committee meetings. Discussed the tentative Order, Selenium TMDL, stormwater diversions, and a debrief on the Annual Meeting.

BAPPG: developed an approach for converting BAPPG into a BACWA standing Committee and gained membership acceptance.

COLLECTION SYSTEMS COMMITTEE: Attended the Monthly Collection Committee meeting and address the issue of potentially developing a long term private sewer lateral strategy for BACWA.

COLLABORATION:

-Coordinated with the CASA ED on topics on mutual interest (i.e. nutrients, toxicity, utility leadership committee)
-Attended the quarterly Managers Roundtable Meeting and discussed ReNUWIt, BAB2E, and recycled water programs.

ORGANIZATIONAL EFFORTS:

-Worked to set up a Special Board Meeting for BACWA to discuss several key outstanding issues.
-Worked on finalizing the agenda for the Annual Meeting and inviting key speakers.

ADMISTRATION:

-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.
-Provided written report of avoidance of conflicts of interest associated with previous employment and current elected position.
-Worked with the RPM in the preparation of the monthly BACWA newsletter.

MISCELLANEOUS MEETINGS/CALLS:

-David Senn on nutrient issues
-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 new Interim Executive Director of SFEI
-attended the CASA Mid-year Conference as a CCCSD Board member

-attended the NACWA Winter conference as a CCCSD Board member
-discussed the watershed permit with a number of consultants interested in participating the optimization and upgrade studies.
-other misc calls and inquiries regarding BACWA activities

Attachments:

1) Status on Action Items from December 20, 2013 BACWA Executive Board Meeting
2) BACWA Board Calendar (outline of upcoming meeting agenda items) – BODCAL
3) CASA Utility Leadership Committee Priorities Planning Notes, January 15, 2014

December 20, 2013 BACWA Board Meeting
Action Items

Number	*Subject (Lead)*	*Task*	*Deadline*	*Status*
2013.12-109	CCCSD Job Postings Link (RPM)	Include link to CCCSD job postings in the January BACWA e-newsletter.	1/2/2014	Completed
2013.12-110	BACWA Representation (ED/Board)	Board to provide feedback on proposed guidelines and ED will revise as necessary.	2/21/2014	Pending
2013.12-111	BAPPG Financial Restructuring (ED)	Discussed proposed changes with member agency manager and return to Board with feedback and possibly proposal.	2/21/2014	Completed
2013.12-112	Water Operator Training Contract (ED)	Work with BACWA legal counsel to determine if current contract between Solano and BACWA addresses BACWA financial liability concerns.	2/21/2014	Pending
2013.12-113	Annual Members' Meeting (ED)	Incorporate suggested revisions to agenda and prepare for meeting.	1/30/2014	Completed
2013.12-114	Joint SF Bay Water Board/BACWA meeting (ED)	Schedule meeting and send outlook invitations.	12/24/2013	Completed
2013.12-115	ReNUWIt (ED)	Develop draft MOU/MOA to consider BACWA participation in the mobile pilot laboratory project.	2/21/2014	Pending

Action Items Remaining from Previous BACWA Executive Board Meetings

Number	*Subject (Lead)*	*Task*	*Deadline*	*Status*
2013.11-108	Annual Meeting (ED)	Incorporate suggested revisions to agenda and prepare for meeting.	1/30/2013	Completed

FY13: 67 of 67 Action Items completed.
FY14: 45 of 48 Action Items completed.

Board Calendar thru December 2014

As of Wednesday, February 19, 2014 at 5:08 PM

DATE	ASSIGNMENT	STATUS NOTES
3/?/2014 Orinda Mid-Year Joint Meeting **Items due: ?** Connor; Pagano; Horenstein; Ervin; Swanson Water Board Staff Williams; Fono	**Other Business: BACWA Internal Discussions** BACWA Representation – Process Improvements **Other Business: Discussions w/ Water Board**	
3/21/2014 Monthly Board Mtg **Items due: 3/14** Connor; Pagano; Horenstein; Ervin; Swanson Williams; Fono; Gunnell	**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 Resolution to adopt updated IRWMP –or delay to April meeting (PGS/L. Hu/C. Munoz) Consolidation of Reserve Funds (ED/AED) BAPPG Social Marketing Contract (BAPPG Chair)	
	Other Business: Discussions FY2015 Budget Planning (ED/AED) Quarterly Update from CWCCG (S. Deslauriers) ReNUWIt Update (B. Horenstein/ M. Connor)	
4/18/2014 Monthly Board Mtg **Items due: 4/11** Connor; Pagano; Horenstein; Ervin; Swanson Williams; Fono; Gunnell	**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 FY2015 Budget Approval (ED/AED)	
	Other Business: Discussions	
5/?/2014 Joint Meeting **Items due: ?** Connor; Pagano; Horenstein; Ervin; Swanson	**Other Business: Discussions** Pardee Date (ED)	

DATE	ASSIGNMENT	STATUS NOTES
Water Board Staff Williams; Fono		
5/16/2014 Monthly Board Mtg **Items due: 5/9** Connor; Pagano; Horenstein; Ervin; Swanson Williams; Fono; Gunnell	**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 Approval of FY2015 Contracts (AED) Approval of FY2014 Amendments (AED)	
	Other Business: Discussions	
6/20/2014 Monthly Board Mtg **Items due: 6/13** Connor; Pagano; Horenstein; Ervin; Swanson Williams; Fono; Gunnell	**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 Chair / Vice Chair Nomination & Election (Board/AED) Approval of FY2015 Contracts (AED) Approval of FY2014 Amendments (AED)	
	Other Business: Discussions Quarterly Update from CWCCG (S. Deslauriers)	
7/?/2014 Joint Meeting **Items due: ?** Connor; Pagano; Horenstein; Ervin; Swanson 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; Gunnell	**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 Board Meeting Calendar for Jan-Dec 2015 (AED) ReNUWIt Update (B. Horenstein/ M. Connor)	
8/15/2014	**Consent**	*5m*

DATE	ASSIGNMENT	STATUS NOTES
Monthly Board Mtg **Items due: 8/8** Connor; Pagano; Horenstein; Ervin; Swanson Williams; Fono; Gunnell	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)	*40m*
	Other Business: Authorizations	
	Other Business: Discussions Pardee Technical Seminar Planning (ED/AED)	
9/?/2014 Joint Meeting **Items due: ?** Connor; Pagano; Horenstein; Ervin; Swanson 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; Gunnell	**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)	
10/22 – 10/24 Pardee Technical Seminar **Items due: 10/15** Connor; Pagano; Horenstein; Ervin; Swanson Williams; Fono; Gunnell	**Other Business: Discussions**	*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)	*10m* *plus previous month (Aug2013)*

DATE	ASSIGNMENT	STATUS NOTES
Connor; Pagano; Horenstein; Ervin; Swanson Williams; Fono; Gunnell	Annual Audit Report (EBMUD Accounting) **Reports** Committee Reports (Committee Chairs) Board Reports (Executive Board) ED Report (ED) RPM Report (RPM) Chair/ED Authorizations (AED)	*40m*
	Other Business: Authorizations	
	Other Business: Discussions ReNUWIt Update (B. Horenstein/ M. Connor) Annual Member Meeting Planning (ED)	
12/19/2014 Monthly Board Mtg **Items due: 12/12** Connor; Pagano; Horenstein; Ervin; Swanson Williams; Fono; Gunnell	**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	

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)
- Sewer Rate Survey Enhancements
- Strategy Development for Triennial Review (Permits Committee/Board)

BOARD COMMITTEES WITH NO MEETINGS CURRENTLY SCHEDULED

-

Utility Leadership Committee

Priorities Planning Notes

January 15, 2014

- Drought/water shortage—opportunity to drive harder on full resource recovery—energy, recycled water, biosolids
- Commercialization/marketing of materials
- Nutrients
- Recycled water—storage for winter water, support for direct potable reuse; treat recycled water as a raw water source
- CECs—sampling requirements, method development, thresholds
- Consistent messaging—fact sheets, templates, more outreach to members
- Succession/training of qualified engineers, operators
- Facilitate emerging technologies (e.g. green infrastructure)—need to balance innovation with need for certainty; increase acceptance/test by partnering with RENUWIT, et al
- New paradigm for working with regulators—problem solving partners combining resources
- Partnering with other associations—ACWA, WateReuse, NACWA

NUTRIENT WATERSHED PERMIT SUPPORT: Attended two internal negotiating team meetings and meeting with the Regional Water Board staff. Prepared a markup of the Administrative Draft permit reflecting BACWA's detailed comments and delivered it to Regional Water Board staff. Reviewed and assisted in drafting BACWA's proposed Permit and Fact Sheet language. Provided analysis of Tentative Order to permit negotiating team.

REVIEW OF SFEI INVOICES FOR NUTRIENT STUDIES CONTRACT: Reviewed invoices submitted by SFEI for nutrient scientific studies. See attachment.

NORTH BAY SELENIUM TMDL: Attended Barbara Baginska's January 14th meeting at Regional Water Board offices. The Regional Water Board has developed a tentative target dissolved water concentration for selenium, but they have not yet developed an implementation strategy. They stated that they're not interested in creating compliance issues for POTWs. They said that they welcome input that's given to them within two months of the meeting both on the derivation of the target selenium concentration, and on the implementation strategy.

PROP 84 BACWA REGIONAL SUBMITTAL SUPPORT: Attended kickoff meeting with regional stakeholders for a nutrient-themed wastewater project concept, and a meeting with shoreline sustainability stakeholders. Arranged conference calls with the nutrients project element technical leads. Coordinated information from each project element.

RISK REDUCTION FOR MERCURY/PCBs: Continuing discussions with Janis Cook of Region 5 to look for opportunities for BACWA to contribute to risk reduction efforts. Regions 2 and 5 are interested in using BACWA as a contracting agency to provide grants to community-based organizations.

ANNUAL MEETING: Prepared and gave presentation on Toxicity Plan, Hg/PCB Watershed Permit, North Bay Selenium TMDL and CECs.

REGULATORY ISSUES UPDATE: Updated and posted the Regulatory Issues Summary Matrix prior to the Annual Members' meeting.

TRI-TAC: A major new topic was that Region 2 developed a NPDES permit for dischargers from potable distribution systems. There is a push to make this a statewide general permit. There was also discussion about the State Board considering regulations about private sewer laterals.

BACWA BULLETIN: Drafted and distributed January and February BACWA Bulletins.

COMMITTEE SUPPORT: Drafted agendas and Board Report for Permits Committee meetings. Drafted meeting notes and Board Report for Recycled Water Committee. Drafted Board report for AIR committee.

MEETINGS ATTENDED: Nutrient Watershed Permit Negotiating meeting (1/10, 2/14, and 1/21 with Regional Water Board), Permits Committee (1/14 and 2/11), Selenium TMDL meeting at RWB offices (1/14), Prop 84 Meeting (1/8 and 1/21 conference call), Shoreline sustainability

Prop 84 Meeting in Hayward (1/23), Recycled Water Committee (1/13 and 2/5), BACWA Annual Members' Meeting (1/30), Nutrient Assessment Framework Meeting (2/4), called in to joint Regional Water Board/BACWA meeting (2/7), Tri-TAC (2/13).

SF Bay Nutrient Strategy FY2014 Status (Contract with SFEI)

Updated 2/12/2014

Total Spent of $675,000 **$137,387.30**

Task	Description	Upcoming Deliverable	Original Date	Updates
11	Lower South Bay Synthesis	Draft Report	December 2013	Expected in February/March 2014
12	Suisun Synthesis I	Final Report	December 2013	Within 10 hours of completion
4 (FY13)	Suisun Synthesis II	Draft Report	April 2014	Expected in Q3 2014
13	Nutrient Science Plan	Draft Plan	February 2014	Expected in April 2014
22	Moored Sensor Program	Draft Summary	April 2014	
23	Characterizing Phytoplankton Community Composition	Draft Report	April 2014	
24	Nutrient Monitoring Program Development	Draft Plan	March 2014	
3 (FY13)	Conceptual Model of Nutrient Exchange through Golden Gate	Draft Report	July 2013	Draft report is complete and will be circulated

EXECUTIVE DIRECTOR AUTHORIZATION REQUEST

FILE NO.: 13,135

DATE: January 6, 2014

TITLE: Executive Director Authorization for Agreement with O'Rorke, Inc for BAPPG "Partnership with Air District" Campaign Support

RECOMMENDED ACTION

BACWA Executive Director authorization for an agreement with O'Rorke, Inc., in an amount not to exceed $2,000, to provide media relations support for a BAPPG partnership project to support the Bay Area Air Quality Management District's (BAAQMD) "Spare the Air" campaign, which seeks to reduce air pollution from residential burning in Fiscal Year 2013-14.

SUMMARY

Since dioxins have been found to be an uncontrollable source in wastewater, BAPPG is proposing a project to partner with the BAAQMD to support their "Spare the Air" campaign, which makes it illegal to burn wood, fire logs and other combustibles, such as paper and garbage. When combustibles are burned, many pollutants, including dioxins, are emitted into the air, disperse over the land and ultimately get transported in runoff when it rains. These pollutants can then get into the wastewater stream via inflow/infiltration, so controlling burning ultimately helps reduce these pollutants in stormwater and wastewater.

This contract will provide media relations by O'Rorke, Inc. to develop an online Facebook ad campaign to support the BAAQMD's "Spare the Air" campaign. Campaign success will be measured by the number of ad clicks.

This work will be carried out under the supervision of Melody LaBella (CCCSD).

FISCAL IMPACT

This project is included in the approved Fiscal Year 2013-2014 BAPPG budget and workplan, and sufficient funds are available for this work.

ALTERNATIVES

No other alternatives were considered as the BACWA contracting policies authorize a sole source selection process for contracts under $50,000. O'Rorke, Inc. is being proposed for this work, both because they are familiar with BACWA/BAPPG's wastewater messaging and because they are currently managing the BAAQMD's "Spare the Air" campaign and can most efficiently develop a BAPPG campaign in support.

Attachments:

1. O'Rorke BAPPG Air 2013-14, 13,135 Purchase Order

O'Rorke, Inc. Scope of Work and Budget

O'Rorke, Inc. will develop an online Facebook ad campaign in support of the Bay Area Air Quality Management District's (BAAQMD) "Spare the Air" campaign.

Task	Budget
Develop online ads (using photographs) and messaging, set up ads and monitor Facebook and tweak campaign, as needed	$600
Facebook online ad budget	$1,400
Total budget	**$2,000**

BACWA TASK AUTHORIZATION FOR AS-NEEDED SERVICES

The Bay Area Clean Water Agencies (BACWA) uses contract consultants to carry out all of its functions. To ensure that the agency can be flexible and responsive, it engages some consultants on an "as-needed" basis, meaning that work is performed only when requested. When completed, this form constitutes approval of a new task under an existing "as-needed" contract. BACWA policies require the Executive Director to approve all tasks under $5,000; the Chair to approve all tasks over $5,000 but below $10,000; and the Executive Board to approve all tasks over $10,000. The consultant, the Executive Director, and the Assistant Executive Director shall work together to complete/update this form as tasks are authorized. No work shall begin on any task until this form has been completed.

Consultant: HDR

Contract Number: 12,976

Contract Amount: $30,000

	Date Approved	Amount Approved	Description	Budget Line	Amount Spent	Approved By
1.	2/17/2014	$9,999	Optimization/Upgrade Scope	CBC Tech		MConnor
2.						
3.						
4.						
	BALANCE	$20,001		**TOTAL**	0	

Attachments *(attach longer descriptions if appropriate)*:

1. Scope for Task Authorization No 1.

From: Kennedy, Holly [mailto:Holly.Kennedy@hdrinc.com]
Sent: Tuesday, February 4, 2014 1:17 PM
To: Dave Williams
Subject: Task Order Request

Hi Dave,
Thank you again for asking us to help BACWA prepare the scope of work for the POTW optimization and upgrades studies that will be required in the upcoming Watershed Permit.

Based on the discussions we've had, our approach will be rather straight forward. We will review the language in the Draft Permit (due out this week I believe?) and collect and review scopes for other similar studies we've conducted across the county. I plan to also call a couple BACWA members (perhaps 2 or 3) to get their input on what they expect to get from the study. I would like your input on who you might suggest – it would be good to get the perspective of the smaller agencies.

We'll then synthesize that information and develop scope language for both studies. I believe it will simplify the ultimate RFP if we approach the 2 studies as 1 project so that data collection/review, etc., are common to both studies. We'll also be mindful of the level of effort you and I discussed last week while we're preparing the draft. The scope will include a detailed breakdown of the tasks needed to complete the studies as described in the Draft Watershed Permit.

Once we have a draft scope, we'll circulate that for internal review with some of our key wastewater leadership, including Dave Clark, JB Neethling, Rob Williams and Dave Reardon. We'll then incorporate their comments and provide a draft to you (and other reviewers as appropriate) for review and comment. Once all have reviewed, we'll convene a conference call to get feedback on the initial draft. Then we'll prepare another update which can be used for discussion purposes with the Water Board. We will plan to attend up to two meetings with you and the Water Board to review the scope, including any final modifications.

I envision that the principal authors of the scope will be me and Mike Falk. I don't think our level of effort should be too significant. For now, I'd suggest we set the upper limit on the task order at $10,000.

Regarding the schedule, lets plan for the following milestones:

1. Deliver draft scope to BACWA for review – Week of February 24
2. Convene conference call with reviewers – Week of March 3
3. Deliver updated draft to BACWA – Week of March 10
4. Potential meetings with Water Board Staff – late March and early April

Just a last note, I've assumed here that we're only preparing the scope to be included with the RFP. We can also prepare suggested proposal evaluation criteria and requirements if that's also helpful. Just let me know.

Please let me know if you have any comments or questions regarding the proposed approach, schedule, and budget described above. We'll get going as soon as you give us the go ahead.

Thank you!

HOLLY KENNEDY
PE

HDR Engineering, Inc.
Associate Vice President

2121 North California Boulevard, Suite 475 | Walnut Creek, CA 94596
925.974.2617 | c: 925.209.0696
Holly.Kennedy@hdrinc.com | hdrinc.com

BACWA Annual Members Meeting 2014

SurveyMonkey

1. What are your reasons for attending the annual meeting?

	Response Percent	Response Count
Learn about BACWA activities	57.8%	26
Learn about regulatory developments	**80.0%**	**36**
Network with agency staff	66.7%	30
Other:	8.9%	4
answered question		**45**
skipped question		**0**

2. How satisfied were you with the presentations?

	Response Percent	Response Count
Very Satisfied	**77.3%**	**34**
Somewhat Satisfied	11.4%	5
Satisfied	11.4%	5
Dissatisfied	0.0%	0
Comment/Suggestions for Future Presentation Topics		5
answered question		**44**
skipped question		**1**

3. What topics did you find MOST useful and/or interesting?

	Response Percent	Response Count
Introduction and Year in Review (Mike Connor)	22.2%	10
US EPA Priorities (David Smith)	**80.0%**	**36**
SF Bay Water Board Priorities (Bruce Wolfe)	73.3%	33
Nutrients Overview (David Williams)	57.8%	26
Nutrient Watershed Permit (Lila Tang)	53.3%	24
Nutrients - Next Steps (Naomi Feger)	37.8%	17
Nutrients - Technical Update (David Senn)	75.6%	34
BACWA Business Meeting (David Williams)	15.6%	7
Bay Area Pollution Prevention Group (Karri Ving)	28.9%	13
Biosolids Committee (Matt Krupp)	13.3%	6
Collection Systems Committee (Dan Stevenson)	17.8%	8
Permits and Pretreatment Committees (Tim Potter)	13.3%	6
AIR Regulatory Update (Sara Deslauriers, Jim Sandoval)	22.2%	10
State Water Board Update (Steven Moore)	46.7%	21
BACWA Collaboration / Regional Role (Laura Pagano)	17.8%	8
Regulatory Updates (Lorien Fono)	28.9%	13

Water Recycling (Linda Hu, Cheryl Munoz)		24.4%	11
Resource Recovery/Energy Conservation (Ben Horenstein, Gary Darling)		24.4%	11
Other/Comment:		4.4%	2
		answered question	**45**
		skipped question	**0**

4. What topics did you find LEAST useful and/or interesting?

	Response Percent	Response Count
Introduction and Year in Review (Mike Connor)	9.4%	3
US EPA Priorities (David Smith)	0.0%	0
SF Bay Water Board Priorities (Bruce Wolfe)	3.1%	1
Nutrients Overview (David Williams)	0.0%	0
Nutrient Watershed Permit (Lila Tang)	3.1%	1
Nutrients - Next Steps (Naomi Feger)	6.3%	2
Nutrients - Technical Update (David Senn)	9.4%	3
BACWA Business Meeting (David Williams)	18.8%	6
Bay Area Pollution Prevention Group (Karri Ving)	18.8%	6
Biosolids Committee (Matt Krupp)	21.9%	7
Collection Systems Committee (Dan Stevenson)	18.8%	6
Permits and Pretreatment Committees (Tim Potter)	18.8%	6
AIR Regulatory Update (Sara Deslauriers, Jim Sandoval)	**37.5%**	**12**
State Water Board Update (Steven Moore)	15.6%	5
BACWA Collaboration / Regional Role (Laura Pagano)	15.6%	5
Regulatory Updates (Lorien Fono)	9.4%	3

Water Recycling (Linda Hu, Cheryl Munoz)		6.3%	2
Resource Recovery/Energy Conservation (Ben Horenstein, Gary Darling)		15.6%	5
Other/Comment:		21.9%	7
		answered question	**32**
		skipped question	**13**

5. Did you find the overall length of the meeting to be appropriate? If not, please explain.

		Response Percent	Response Count
Yes		**97.7%**	**43**
No (please include comment)		2.3%	1
		Comment	3
		answered question	**44**
		skipped question	**1**

6. Would you recommend that we continue to have the meeting at this venue? (Boy Scouts Meeting Facility) If not, please explain.

		Response Percent	Response Count
Yes		**95.5%**	**42**
No (please include comment)		4.5%	2
		Comment	7
		answered question	**44**
		skipped question	**1**

7. What are the most important benefits that you receive from BACWA membership?

	Response Percent	Response Count
Regulatory updates and advocacy	**90.5%**	**38**
Training opportunities	21.4%	9
Information sharing with other agencies	78.6%	33
Other (please specify)	4.8%	2
	answered question	**42**
	skipped question	**3**

8. What BACWA events did you attend in 2013?

	Response Percent	Response Count
Committee meetings	**74.4%**	**32**
Workshops	62.8%	27
Workgroups	20.9%	9
Executive Board meetings	39.5%	17
2013 Annual meeting	**74.4%**	**32**
Other: (please specify)	2.3%	1
	answered question	**43**
	skipped question	**2**

9. What could BACWA do to better serve your agency?

	Response Count
	7
answered question	**7**
skipped question	**38**

10. Any other suggestions for improving the meeting?

	Response Count
	9
answered question	**9**
skipped question	**36**

Page 1, Q1. What are your reasons for attending the annual meeting?

1	watch regulatory and nutrient presentations	Feb 7, 2014 8:09 PM
2	Present AIR Committee activities/topics	Feb 7, 2014 2:34 PM
3	Especiallu the nutrient	Feb 3, 2014 9:31 AM
4	To present	Jan 31, 2014 12:09 PM

Page 1, Q2. How satisfied were you with the presentations?

1	Highly qualified presenters with well thought out programs.	Feb 11, 2014 4:19 PM
2	Have BACWA staff provide summary notes of the Regulators' presentations since they generally don't prepare Powerpoint presentations.	Feb 7, 2014 3:10 PM
3	Update on Nutrient Regulation Regional Sea Level Rise Efforts Update on Bay Area Recycled Water Efforts	Jan 31, 2014 2:20 PM
4	Vary the topics a bit. Too much nutrient info.	Jan 31, 2014 1:25 PM
5	Great meeting. Very helpful to hear from Water Board folks and I enjoyed nutrient updates.	Jan 31, 2014 12:53 PM

Page 1, Q3. What topics did you find MOST useful and/or interesting?

1	I really appreciated how you divided the presentations into short segments. This was very effective in creating a fast paced meeting. While Dave Senn's presentation was longer, his enthusiasm and graphic made for a high quality presentation that captured and held the audiences attention.	Jan 31, 2014 2:20 PM
2	Air Update was good, but too long.	Jan 31, 2014 1:25 PM

Page 1, Q4. What topics did you find LEAST useful and/or interesting?

1	Excellent conference - no "bad" talks	Feb 14, 2014 11:39 AM
2	Get a different water board speaker next year	Feb 12, 2014 7:53 AM
3	I Left at noon. All presentations were good.	Feb 7, 2014 8:09 PM
4	I only stayed for the morning session	Feb 7, 2014 3:16 PM
5	5 minutes not sufficeint time to do anything meaningful. an entire special meeting could and should be devoted to the topic.	Feb 3, 2014 9:22 AM
6	Bruce usually has some good things to say, but this year not so much. Mr. Moore didn't seem to have prepared for the meeting.	Jan 31, 2014 2:20 PM
7	All were good topics	Jan 31, 2014 12:51 PM

Page 1, Q5. Did you find the overall length of the meeting to be appropriate? If not, please explain.

1	I left at noon due to other commitments.	Feb 7, 2014 8:09 PM
2	A little long	Jan 31, 2014 1:26 PM
3	Maybe a half hour shorter would be nice.	Jan 31, 2014 12:27 PM

Page 1, Q6. Would you recommend that we continue to have the meeting at this venue? (Boy Scouts Meeting Facility) If not, please explain.

1	No comment	Feb 7, 2014 8:09 PM
2	Something that's more central would be nice.	Feb 7, 2014 3:14 PM
3	Thsi is a very good loacation.	Feb 7, 2014 2:55 PM
4	easy access with BART	Feb 7, 2014 2:29 PM
5	If the attendance get's much larger, we will have to switch to a bigger venue.	Jan 31, 2014 2:20 PM
6	Centrally located for the Bay Area.	Jan 31, 2014 1:25 PM
7	The Boy Scouts continue discriminatory practices inconsistent with the policies of many of our organizations. Public funds should not be used to contract with an organization that discriminates on the basis of sexual orientation and religion.	Jan 31, 2014 12:18 PM

Page 1, Q7. What are the most important benefits that you receive from BACWA membership?

1	Not a member	Feb 7, 2014 8:09 PM
2	Committee participation by our agency staff	Jan 31, 2014 2:20 PM

Page 1, Q8. What BACWA events did you attend in 2013?

1	Symposium on Nutrient Treatment Technologies	Feb 11, 2014 4:19 PM

Page 1, Q9. What could BACWA do to better serve your agency?

1	Advocacy for smaller dischargers in less urban environments.	Feb 11, 2014 4:19 PM
2	Partner better with the smaller (non-founding) BACWA member agencies	Feb 7, 2014 3:14 PM
3	Keep improving and adding to the website	Feb 7, 2014 3:10 PM
4	I would like to see the Sea Level Rise group restarted. This is an important issue to most all BACWA Agencies given our proximity to the Bay. I would also like to see more regional activities to promote our industry and the good things we do for the citizens of the Bay Area.	Jan 31, 2014 2:20 PM
5	Doing great	Jan 31, 2014 1:26 PM
6	Our agency is heavily involved. I think BACWA could do better outreach to those agencies that are not attending.	Jan 31, 2014 1:25 PM
7	Deveklope and provide regulatory compliance checklists for specific subjects.	Jan 31, 2014 12:56 PM

Page 1, Q10. Any other suggestions for improving the meeting?

1	Stay on schedule	Feb 12, 2014 7:53 AM
2	From what I saw, it was a good meeting.	Feb 7, 2014 8:09 PM
3	More Q&A time after each presentation. It may require reducing the presentation time or the number of presentations.	Feb 7, 2014 2:34 PM
4	Sound system can be slightly louder	Feb 3, 2014 9:31 AM
5	I thought it was a terrific meting.	Jan 31, 2014 2:39 PM
6	Everyone did a great job putting this session together. Thanks to Alex for her excellent work preparing and coordinating.	Jan 31, 2014 2:20 PM
7	No	Jan 31, 2014 1:26 PM
8	Vary the topics.	Jan 31, 2014 1:25 PM
9	Great venue. More tables would have been nice.	Jan 31, 2014 12:56 PM

Minutes of Joint Meeting with Regional Water Board Staff (2/7/14)

Attendees: Bruce W., Tom M., Naomi F., Diane W., Bill J., Lila T., David W., Ben H., Laura P., Mike C., Jim E., Curt S., Tim P.. Lorien F., (on the phone)

- *IRWMP BACWA Nutrients Proposal* – WB Staff were cautiously supportive of the concept of BACWA's proposal, however they indicated that they are on the Project Screening Committee and can't show favoritism.

- *Blending* – There was a discussion of the impact of the recent ruling by the 8th Circuit Court on the issue of blending. WB staff indicated that they had no plans to change their current approach of requiring a No Feasible Alternative Analyses which, to date, has not proven to be too onerous for POTWs. BACWA expressed concern if that approach changed in the future such that blending became difficult for Bay Area POTWs.

- *Selenium* – Regional Board staff state they don't plan to cause compliance problems for POTWs, and the TMDL will be a net benefit for our community because it will give regulatory certainty.

- *Drought Response* – They are pushing for increased recycling, particularly for vineyards and livestock. There was discussion at the permits meeting that the Department of Food and Agriculture has jurisdiction over livestock.

- *Risk Reduction* – Regional Board Staff asked BACWA if we'd be willing to fund community-based grants. Also, they asked us to propose a dollar figure for this permit term. BACWA committed to communicating with BASMAA and WSPA. BACWA expressed its desire to not take on significant administrative burden in dealing with risk reduction initiatives due to that effort being outside of our area of expertise. Our preferred approach is to provide reasonable financial support to others to implement a risk reduction program.

- *Emerging Contaminants* – The WB wants to make sure we have good POTW participation for effluent testing through the RMP. Karin North is coordinating this project.

- *Stormwater Diversion* – WB staff initially felt that BACWA was being overly conservative when they reviewed our list of concerns on storm water diversions, however, they became more receptive to BACWA's concerns once they saw we also had suggestions on ways to mitigate them. Ultimately, stormwater agencies have claimed that POTWs are blocking diversions, but there doesn't seem to be

any instances where stormwater agencies have approached a POTW with a specific diversion proposal that was actually denied. There was a discussion of the overall cost effectiveness of diversions as a way to reduce Hg and PCB loads. Also, there are a very small number of high opportunity areas where "hotspots" are near a sanitary sewer. BASMAA will be submitting a report to the Regional Water Board with their findings from the diversion pilot projects, and the WB will consider those results before further engaging BACWA on this issue.

- *Nutrients* – discussed the progress on the watershed permit and in general both the WB and BACWA felt things were heading in a reasonable direction. The WB is concerned about not initiating a governance structure until there is clear understanding on what exactly we will be governing. A Governance Task Force meeting is scheduled for 2/13/14.

Timeline for Proposition 84 Round 3 grant application

Action/Milestone	date
Regional project concept submittals due to PSC	March 31, 2014
Subregional project concept submittals due to PSC	April 30, 2014
Regional concepts vetted by PSC	May 2014
Cities/agencies must adopt BAIRWMP	May 11, 2014
DWR to release draft guidelines/PSP	July 1, 2014
Project selection by PSC/CC*	September 2014
DWR to release final guidelines/PSP	September 1, 2014
Applications due to DWR	November 1, 2014
Awards announcement	by April 15, 2015

PSC = Bay Area Project Screening Committee
CC = Coordinating Committee
PSP = Project Solicitation Package
* now subject to change based on revised DWR schedule
Updated 2/19/14

Research Collaboration with BACWA and its Members
Resource Recovery Center
Stanford University

1. Stanford University: Background on the Department of Civil and Environmental Engineering (CEE), Woods Institute for the Environment, the Engineering Research Center (ReNUWIt), and the Resource Recover Center

The Department of Civil and Environmental Engineering at Stanford University has a fifty year history of successful utility partnerships established to address complex water management challenges, including work with the Orange County Water District and the City of Palo Alto that resulted in landmark studies of reverse osmosis, aquifer recharge, and water reuse. The Stanford Woods Institute for the Environment, founded in 2004, has funded basic research on new technologies for wastewater treatment, such as CANDO, a novel process for nitrogen removal and enhanced energy recovery (now under pilot-scale evaluation by the Delta Diablo Sanitation District) and has sponsored several water–related Uncommon Dialogs, such as "Wastewater as a Resource", a workshop that brought together many key leaders in wastewater and water in the Bay Area. The University subsequently launched an Initiative on the Environment and Sustainability, a campaign that engaged both academic and administrative departments across the campus, bringing together water utilities staff and CEE faculty interested in improved water security. In 2011, CEE faculty and staff from the Department of Sustainability and Energy Management (Stanford Water Utilities) submitted a joint proposal to Provost John Etchemendy, to create a research center where technologies for resource recovery from wastewater could be scaled-up and evaluated at pilot-scale. The Provost approved $2 million to support development of a center for resource recovery. The mission of this center is to simultaneously address local campus concerns (security, cost, and safety of campus water supplies) while accelerating their scale-up, commercial development, and adoption. The University Architect subsequently approved a site for the Resource Recovery Center, and faculty and utilities have worked together to develop plans for a novel wastewater scalping facility where realistic performance data can be obtained at a commercially meaningful scale. The Resources Recovery Center will provide critical support for several Stanford research initiatives on water, including the Water in the West initiative of the Woods Institute for the Environment and the Center for Re-inventing the Nation's Urban Water Infrastructure (ReNUWIt). ReNUWIt is a new NSF Engineering Research Center, a ten-year award (now in its 3rd year) to faculty within the Department of Civil and Environmental Engineering, and the Schools of Earth Sciences and Law and collaborators from the University of California Berkeley, Colorado School of Mines, and New Mexico State University. Stanford is the lead institution, and Professor Richard Luthy (Stanford Department of Civil and

Environmental Engineering) is the Director. In the funded proposal submitted to NSF, each university partner committed to development of test facilities. The Resource Recovery Center is an essential part of how Stanford will meet its ERC obligation.

2. What is the typical process for a technology to be developed in the laboratory to a full-scale implementation at a POTW?

The mission of the Resource Recovery Center is to accelerate commercial development of promising technology for resource recovery from wastewater. Promising laboratory-scale technologies for wastewater treatment, demonstrated for effective treatment at a scale of tens of gallons of wastewater per day scale in the laboratory, will be scaled up 1000 fold, enabling treatment of tens of thousands of gallons per day. This scale is commercially viable for some applications, and sufficiently large to justify additional scale up to demonstration- and full-scale. The basic steps are outlined below:

Step 1- Concept development and bench-scale testing at a scale of tens of gallons of wastewater per day at an educational/research institution such as Stanford University.

Step 2- If laboratory results are promising, bench-scale units will be moved to the Resource Recovery Center for testing with scalped wastewater. Data will be collected to ensure the technology's efficacy and resilience, and to obtain information needed for scale-up.

Step 3- If Step 2 testing is promising, trailer-mounted modules will be fabricated with capabilities for remote monitoring and control. Performance of these units will be evaluated at the Resource Recovery Center at flowrates of 1000 to 10,000 GPD. After on-site testing and benchmarking, the units will be deployed at other locations of interest to assess their effectiveness under real world conditions. Data generated will be analyzed to project the full-scale performance and operational requirements. Fabrication and testing of the trailers will be a collaboration effort between Stanford University and a partner interested in sponsoring the technology, such as BACWA or a POTW owner such as SFPUC, EBMUD and CCCSD. University research staff (visiting scholars, staff research engineers, post-doctoral researchers, and students) will work with faculty to fabricate systems. After testing at the Resource Recovery Center, University research staff will transport vetted technologies to test locations designated by a sponsor, where they will work with sponsor-designated engineering and operations staff to adapt, operate, and test the units.

Step 4 - Following on-site pilot-scale testing, a feasibility study will be conducted to assess life cycle costs, including capital costs and projected operation and maintenance costs, i.e., labor, material and energy costs; and benefits derived from the recovered resources, including

reclaimed water, energy and nutrients. This study will also evaluate the phasing of the process to enable smooth integration with existing systems. This study is expected inform POTW facilities master planning.

Step 5 - When the new technology is found feasible and beneficial to the POTW, It is common for a large POTW agency to construct a much larger demonstration-scale unit in the range of 1 to 10 MGD range prior to design and construction of a full-scale facility. A large on-site demonstration plant will provide the design team and the operations staff with detailed knowledge of material selection, control logic, and other pertinent information needed for full-scale implementation. Examples of large demo plants include City of New York, Metropolitan Water District of Southern California, LADWP, and the 15 MGD Orange County Water District Water Factory 21. Where conditions allow, a POTW may adapt part of its existing infrastructure to testing of a promising new process. This approach will enable parallel comparison of the new and old processes. However, it is not advisable for a POTW with capacity constraints to convert part of the plant for in-situ testing. The Stanford research team will continue to provide technical support to improve and enhance the technology.

Step 6 – Full-scale implementation may occur once the demonstration project is shown to meet regulatory requirements and is deemed cost-effective. The owner agency of the POTW will take leadership and assume a management role, retaining consultants as needed for full-scale planning, design and construction. Again, the Stanford team will continue to serve as technology advisors to provide support to the engineering, water quality and operation staff.

3. Research projects and the need for scale-up partners

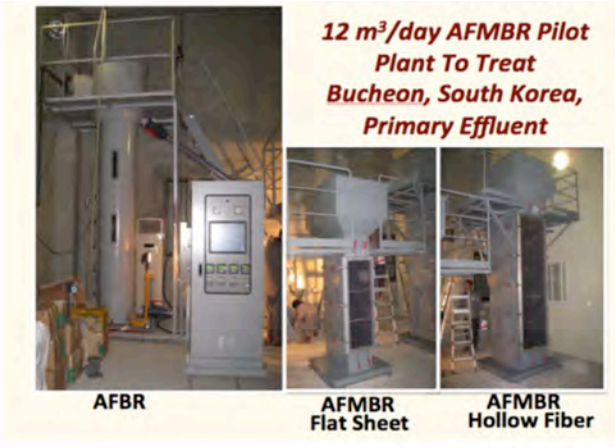
The Resource Recovery Center contains five core design elements: (1) a scalping system for extraction of wastewater from the Serra street sewer; (2) a primary treatment unit (microscreen); (3) a secondary treatment unit (Staged Anaerobic Fluidized Bed Membrane Bioreactor System), (4) a recirculation loop for delivery of water of differing quality (lake water, raw wastewater, primary effluent, secondary effluent) to trailer-mounted treatment units for conveyance of effluent back to the sewer (or to another trailer in a treatment train), and (5) mobile trailer-mounted units that can tap into lines containing water of a desired quality waters and drain back to the recirculation loop that returns flow to the sewer.

Technologies tested at the bench-scale will initially be moved to a trailer and tested with the source water of interest for the technology to be investigated (lake water, raw wastewater, primary effluent, secondary effluent, effluent from another trailer, trucked-in wastewater). If this testing is successful, the technology will be scaled up to accommodate a thousand fold increase in flow rates, and the trailer will be outfitted with a pilot-scale unit and with capabilities

for remote monitoring and control. The scaled up unit will then be tested. If testing at this scale is successful, the mobile unit will be deployed at locations of interest to the sponsor(s).

Some technologies of interest for testing in the mobile units have already been tested with real sewage and at pilot-scale. Examples include the Staged Anaerobic Fluidized Bed Membrane Bioreactor (SAF-MBR) System. Another example is the CANDO system, which will soon undergo pilot-scale testing at Delta Diablo Sanitation District. Because testing of these two systems is advanced and the results are promising, these two systems will be the first mobile treatment units fabricated for testing and deployment at remote locations. Details of these systems are provided below.

(1) Staged Anaerobic Fluidized Membrane Bioreactor (SAF-MBR) system



The SAF-MBR System will be the first secondary treatment system tested at the Resource Recovery Center. Professor Perry McCarty and his colleagues at Inha University have carried out successful pilot-scale testing in South Korea (**Steps 1, Step 2, and part of Step 3**). Results are highly promising, but, to date, the system has not been optimized to realize its full benefits.

The benefits of the SAF-MBR System realized to date, in comparison with a conventional energy intensive activated sludge process, include:

Energy savings: produces more energy in the form of methane than required to operate the system

Space Requirements: much smaller footprint than the long detention time conventional aerobic systems

Reduced production of biosolids: production of biosolids requiring further costly treatment and disposal is less than half of what is produced in conventional aerobic systems, reducing the biosolids pre-treatment and digestion capacity required.

Reduced fouling of the membrane bioreactor: The innovative membrane bioreactor design uses fluidized particles of activated carbon to hold the microorganisms treating the wastewater. At the same time, movement of the particles along the membrane surface reduces membrane fouling using less energy than conventional membrane bioreactors, which require large quantities of recycled biogas to reduce fouling.

This emerging technology has demonstrated excellent performance in a pilot plant located in a cold climate setting, is at a point where up-scale is necessary to further evaluate a variety material options and operational scenarios and demonstrate the effectiveness at a POTW site. Parallel operation of this mobile plant and the POTW, performance data can be compared for its efficacy. In addition, the performance data will provide plant specific data for the estimate of life- cycle costs, including capital and O&M costs should it be constructed in full scale.

The Resource Recovery Center is actively seeking collaborating agencies and POTWs for the sponsorship to continue and complete **Step 3** of this development process, and prepare this process for commercialization.

The projected capital cost for the trailer mounted mobile SAF-MBR system is $0.5 million. An additional $300,000 will be needed to cover 3 years of operational costs by the Stanford researchers.

(2) Coupled Aerobic-Anoxic Nitrous Decomposition Operation (CANDO)

Bench-scale testing of CANDO with real wastewater

CANDO is a new nitrogen treatment process that removes and recovers energy from ammonia nitrogen in wastewater. The process converts ammonia to nitrous oxide gas then uses the nitrous oxide as a co-oxidant to combust biogas or methane to increase power output. Nitrous oxide is commonly used to supercharge engines in racecars and as a rocket propellant. At present, CANDO is treating concentrated nitrogen streams from anaerobic digester centrate. A bench-scale system (**Step 1**) has been tested at the Delta Diablo Wastewater treatment Plant, and a pilot-scale system (**Step 2**) is under development.

Side Stream Treatment: Treatment of centrate generated by dewatering of anaerobic digester solids will be assessed in a trailer fabricated at the Resource Recovery Center. Because an anaerobic digester is not yet available at the site, treatment of trucked-in digester centrate will be

Pilot-scale testing of CANDO at Delta Diablo

Control system

Reactor set-up

initially evaluated. Co-combustion of the N2O with biogas gas and air will be investigated to determine the increases in power output resulting from co-combustion.

The projected benefits of CANDO for sidestream treatment, in comparison with a conventional nitrogen removal processes, are:

Energy savings: requires ~25% less electrical energy for aeration.

Reduced production of solids: ~6% less solids for disposal.

CANDO process for nitrogen removal of secondary effluent

While application of CANDO for treatment of the side streams generated by anaerobic digestion is of great interest, the nitrogen in such streams typically represents only 15 to 30% of the total nitrogen load at a domestic wastewater treatment plant. The remaining nitrogen is present in the mainstream. Bench-scale CANDO systems operated at nitrogen concentrations similar to those of mainstream secondary effluent have already achieved efficient removal of nitrogen. There is also preliminary evidence of phosphorus removal. The major challenge is achieving stable partial nitrification of ammonia to nitrite at low nitrogen concentrations and ambient temperature. To address this issue, biomass from side stream reactors will be investigated as a source of ammonia-oxidizing bacteria in mainstream reactors.

One or more mobile units for testing of nutrient removal from secondary effluents will be fabricated. On-site testing at Stanford will be performed in series with a package aerobic system. A trailer-mounted unit will then be deployed for treatment of secondary effluent at one or more POTWs.

Use of CANDO to Treat Effluent from the SAF-MBR

Effluent from the SAF-MBR will contain appreciable levels of nitrogen and phosphorus. The presence of fertilizer in the effluent is desirable when the water is applied to landscapes or used for agriculture. In many other applications (ecosystem restoration, cooling, discharges to the environment in dense urban environments), however, nutrients will need to be removed. A mobile unit for testing of nutrient removal from SAF-MBR effluents will be operated in series with the SAF-MBR before off-site deployment.

The CANDO project is also actively seeking additional collaborating agencies. The sponsorship of the mobile trailer mounted pilot plant will also be in the range of 0.5M for the pilot plant and additional $300,000 for the operation of each mobile plant for a period of three years by Stanford researchers.

The projected benefits of CANDO for mainstream treatment after SAF-MBR, in comparison with a conventional secondary treatment with conventional mainstream nitrification/denitrification, are:

Energy-neutral operation: switches N removal from energy consumption to energy-neutral.

Reduced production of biosolids: ~24% less solids for disposal.

Water Reuse to Meet Future Water Supply Needs. Effluent from the SAF-MBR will contain nutrients (nitrogen and phosphorus). Recovery and beneficial use of these nutrients will be investigated with soil columns and plant mesocosms to assess long-term suitability for irrigation without compromising groundwater quality. This project will advance water-supply options for the Stanford campus and, if proven to be safe and reliable, would help meet the University's water supply needs for the remainder of the 21st Century. The experiments will use advanced analyses and remote sensing to assess the fate of pathogens and trace organic contaminants. These tests would demonstrate the robustness of additional treatment, e.g., filtration and UV disinfection, to comply with regulations, reduce risk and gain public acceptance. A quantitative microbial risk assessment can be done assuming specific exposure scenarios to reclaimed water. This project will measure concentrations of key waterborne pathogens so that the risk assessment can be completed. The findings would inform design and operation of a full-scale water reclamation system for non-potable reuse.

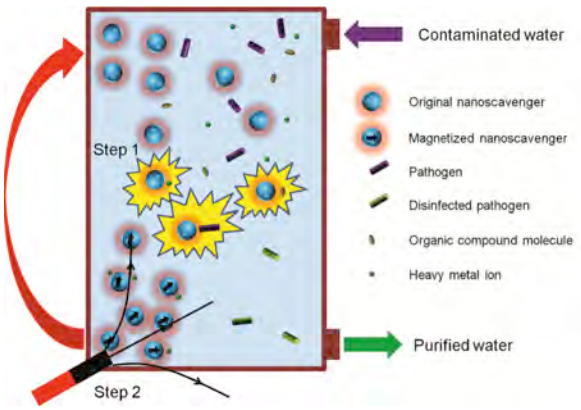
Plant mesocosms for tertiary treatment. Photo: Living Machine at the office of the San Francisco Utilities Commission.

(3) Projects in the "pipeline"

Other wastewater related technologies are being developed at Stanford and are expected to eventually enter the mobile trailer "pipeline". They include:

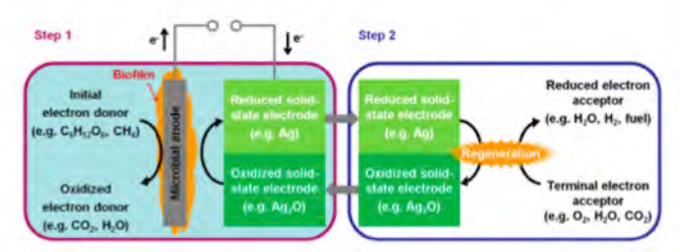
Use of Nanoscavengers for Tertiary Treatment

Materials Science doctoral student Mingliang Zhang worked with Professor Shan Wang and collaborators from the Department of Civil and Environmental Engineering to develop magnetically ultraresponsive 'nanoscavengers', nanoparticles containing synthetic antiferromagnetic core layers and functional capping layers. When dispersed in water, the nanoscavengers efficiently interact with contaminants to remove them from the water. They are then quickly collected (<5 min) with a permanent magnet, owing to their magnetically ultra-responsive core layers. These nanoscavengers were tested for disinfection, but could be modified for enable trace contaminant degradation and tertiary treatment. The nanoscavengers are easily recovered



and can be recycled for contaminant removal. **Reference:** Zhang, M., X. Xie, M. Tang, C. S. Criddle, Y. Cui, and S. X. Wang. 2013. Magnetically ultra-responsive nanoscavengers for next-generation water purification systems. Nature Communications 4:1866, DOI: 10.1038/ncomms2892.

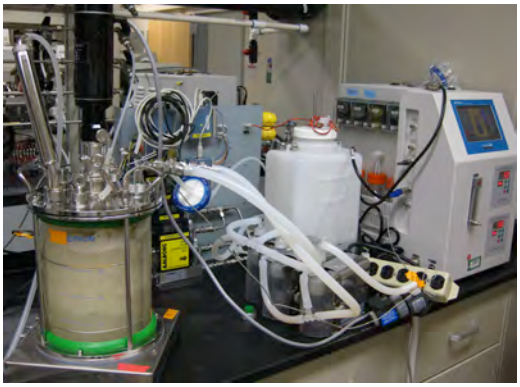
Use of Microbial Batteries for Secondary Treatment



CEE doctoral student Xing Xie worked with Professor Craig Criddle and collaborators from the Department of Materials Science to develop a unique means of energy recovery from wastewater—a microbial battery (MB) consisting of an anode colonized by microorganisms and a re-oxidizable solid-state cathode. The MB has a single-chamber configuration and does not contain ion-exchange membranes. Bench-scale MB prototypes were constructed from commercially available materials using glucose or domestic wastewater as electron donor and silver oxide as a coupled solid-state oxidant electrode. The MB achieved an efficiency of electrical energy conversion of 49% based on the combustion enthalpy of the organic matter consumed or 44% based on the organic matter added. Electrochemical reoxidation of the solid-state electrode decreased net efficiency to about 30%. This net efficiency of energy recovery (unoptimized) is comparable to methane fermentation with combined heat and power**. Reference:** Xie, X., M. Ye, P.-C. Hsu, N. Liu, C. S. Criddle, and Y. Cui. 2013. A microbial battery for efficient energy recovery. Proc. National Acad. Science. Published on-line September 16, 2013, DOI: 10.1073/pnas.1307327110.

In recent work, this group has discovered cheap material to replace the expensive silver/silver oxide electrode, and cheap material has also been identified for the anode.

Use of Biogas Methane for Biopolymer Production



Doctoral students Eric Sundrom, Allison Pieja, and Katherine Rostkowski, working with Professor Craig Criddle in the Department of Civil and Environmental Engineering have developed microbial biotechnology that converts biogas methane into polyhydroxybutryate (PHB), a high value bioplastic. By combusting just 25% of a biogas stream, enough energy can be generated to produce PHB from the remainder, allowing energy-neutral bioplastic production. A conversion yield of about 0.5 g PHB/g methane is achieved. Such a process could increase the value of biogas as a feedstock. **References:** (1) Pieja, A. J., E. R. Sundstron, and C.S. Criddle. 2012. Cyclic, alternating methane and nitrogen

limitation increases PHB production in a methanotrophic community. BioResource Technology 107:385–392. (2) Rostkowski, K., C.S. Criddle, M. D. Lepech. 2012. Cradle-to-gate life cycle assessment for a cradle-to-cradle cycle: biogas-to-bioplastic (and back). Environ. Sci. Technol. 46(18):9822-9829. (3) Rostkowski, K. H., A. R. Pfluger, and C. S. Criddle, 2013. Stoichiometry and kinetics of the PHB-producing Type II methanotrophs Methylosinus trichosporium OB3b and Methylocystis parvus OBBP. BioResource Technology132C:71-77.

Engineered Geomedia for Effluent Treatment. In this project, the goal is to assess new, innovative designs to improve the performance of filters required for compliance with California water reuse standards. Current practice removes particulate matter (turbidity) but does not remove soluble, trace contaminants. This project will investigate geomedia mixtures, e.g., biochar, activated carbon, iron oxide, and manganese oxide, that may be employed in different layers or mixtures to remove pathogens and trace organic contaminants of emerging concern. A trailer will be outfitted with geomedia-containing columns to demonstrate proof-of-concept studies with actual wastewater. Laboratory studies under controlled conditions will provide mechanistic understanding of system parameters. The results will provide insight of the potential for geomedia to enhance removal of pathogens and organic contaminants from treated wastewater in lieu of simple sand filters. Issues affecting system performance and approaches to extend the lifetime of the geomedia will be studied. The project will provide California cities with a better understanding of how to implement decentralized treatment and reuse to augment water supplies in ways that enhance water quality reliability.

4. Conclusion

Two major technologies are ready for pilot-scale testing at the Resource Recovery Center and at utilities; other technologies are "in the qeue". Both SAF-MBR and CANDO will facilitate energy recovery and decrease biosolids compared to conventional technologies. CANDO also addresses the nutrient removal challenge, a pressing issue in the San Francisco Bay. But both process need additional testing and optimization at a scale of 1,000 GPD – 10,000 GPD. Development of mobile trailer units to facilitate collaboration with utilities is a critical next step.

5. Societal Benefits

- The Resource Recovery Center transforms waste streams from liabilities into assets.
- Creates the Nation's only research platform for testing at a commercially relevant scale.
- Expands the Stanford tradition of innovation, entrepreneurship, and collaboration
- Provide teaching opportunity
- Provide learning opportunity for students

6. Benefits to BACWA/POTW agencies:

- Participate in cutting edge technology development, which will

- ✓ Take advantage of the resources available at Stanford for interdisciplinary research including: Nanotechnology, Catalytic biotechnology, Catalytic chemistry and Separations science, Polymer science and Thermal sciences.

- ✓ Take advantage of the more efficient labor cost structure for the design, construction and operation and testing of the mobile pilot plant (as compared to consulting firms)

- ✓ Improve treatment efficiency, decrease energy consumption

- ✓ Promote replacement of less energy intensive and land intensive aerobic secondary treatment processes with energy efficient anaerobic processes.

- ✓ Reduce the production of biosolids, save money in further treatment and disposal.

- Provide learning opportunity for staff
- Heightened visibility in resources recovery toward sustainable operation
- Avoid patent issues related to processes developed by foreign entities, resulting in paying high license fees and high costs of design and construction.
- Evaluate the operability, reliability, maintenance requirements and long term performance of POTWs.
- Negotiation or discussion can commence with the Regional Water Control Board on the application of these new processes.

7. Scope of Pilot-Plant On-Site Testing Programs for SAF-MBR and CANDO

The major tasks are described as follows with the responsible party shown in parenthesis.

Task 1 Design of the testing trailers (Stanford with input from collaborating agency (Agency)

Task 2 Construction of trailers (Stanford)

Task 3 Testing and de-bugging at Stanford Resource Recovery Center (Stanford)

Task 4 Mobilization and connection to utilities and influent and effluent at designated testing sites and shake down (agency and Stanford)

Task 5 Design testing program (Stanford with Agency input)

Task 6 Operate trailer pilot plant and perform tests (Stanford with Agency support)

Task 7 Analyze data and prepare testing report, including findings, conclusions and recommendations (Stanford)

Task 8 Demobilization (Stanford)

8. Plant site trailer testing program costs, funding sources and cost sharing options

a. Labor

From Stanford:

- 2 full-time doctorate students or post-doctorate researchers for a 3-year term, one for each trailer.
- Faculty time (as needed)

From on-site study agency:

- 1 part-time coordinator (10% time)
- In kind laboratory analysis (TBD)
- Progress reports and final report review (as needed).
- Junior process engineer support (as desired)
- Operators' support (as needed)

b. Materials:

From Stanford:

- Mobile testing trailer as designed by Stanford with input by Agency
- Incidental supplies

From agency:

- Research site where the trailer can be parked
- Utilities and incidental supplies

c. Funding options

From Stanford:

- Provost contribution: $2M
- Private donors: $1.5M
- Other potential donors such as Veolia and other public and private entities

Above funding will be used to develop the test beds, local utilities connections and 1 R3C full-time staff for 10 years.

From BACWA and/or other POTW agencies:

- Sponsorship from BACWA, through allocated contributions, voluntary contributions (or combinations): $600,000 for the construction of two test trailers and additional $200,000 for two doctorate students or post-doctorate researchers for the first year.
- WERF research grants, matching funds, etc.
- Prop 84 grant funding
- CASA and/or NACWA?

The above funding will support the labor and material (including the sponsored testing trailers) to conduct the pilot tests at POTW sites for the first year. .

9. Proposed draft Collaboration Agreement or Memorandum of Understanding (MOU)

With BACWA's approval of this proposal, Stanford is prepared to enter into a Memorandum of Understanding or Collaboration Agreement with BACWA as the sponsoring agency. The agreement will provide stipulations on the following:

A. Purpose

B. Scope

C Terms and conditions

D. Intellectual Property

E. Other as specified.

10. Intellectual property

The intellectual property of the SAF-MBR process belongs to the Inha University of Korea. Stanford owns the intellectual property for CANDO. As these technologies are in the final development phase, there will be no royalty charges for Stanford's SAF-MBR pilot system nor for use in the trailer, at Stanford or elsewhere. The same can be said for CANDO.

11. Resource Recovery Center Faculty

The Research Team for the resource Recovery Center consists of Stanford faculty and external collaborating scholars. The Department of Civil and Environmental Engineering will provide core support for the Resource Recovery Center, but the Center will engage faculty with diverse expertise from several departments within the School of Engineering as shown in the photo spread. Stanford collaborators outside the School of Engineering who have expressed interest in R3C participation include Erica Plambeck (GSB) and Bob Waymouth (Chemistry). External collaborators will include faculty from partner institutions in the NSF Engineering Research Center ReNUWIt (UC Berkeley, Colorado School of Mines, New Mexico State University), Jizhong Zhou (U. Oklahoma) and Syed Hashsham (Michigan State University). International academic collaborators will include faculty at Eawag (Switzerland); National Cheng Kung University (Taiwan); Inha University (South Korea), and Yonsei University (South Korea).

Initial projects to be evaluated at the Resource Recovery Center will be directed by Professors Craig Criddle, Dick Luthy and Perry McCarty.

Dr. Craig Criddle is Professor in the Department of Civil and Environmental Engineering and Senior Fellow in the Woods Institute for the Environment at Stanford University. His research and teaching focus is microbial biotechnology for clean water, renewable energy, clean and safe materials, and healthy ecosystems. He has led several multi-disciplinary team projects focused on nitrogen removal from wastewater, aquifer bioremediation, and microbial recycling of biomaterials. He will be Director of the Resource Recovery Center.

Dr. Richard Luthy is the Silas H. Palmer Professor in the Department of Civil and Environmental Engineering at Stanford University and Senior Fellow at the Woods Institute for the Environment. His area of teaching and research is environmental engineering and water quality. He is the Director of the NSF Engineering Research Center for re-inventing the nation's urban water infrastructure (renuwit.org), a collaboration among four universities that promotes new strategies for urban water systems to achieve more sustainable solutions to urban water challenges. He is a member of the National Academy of Engineering.

Dr. Perry McCarty is Silas H. Palmer Professor Emeritus in Civil and Environmental Engineering at Stanford University. The focus of his research has been on water, with primary interests in biological processes for the control of environmental contaminants, especially anaerobic biological treatment. He

is a member of the National Academy of Engineering and the American Academy of Arts and Sciences. He his a recipient of the John and Alice Tyler Prize for Environmental Achievement, the Athalie Richardson Irvine Clarke Prize for Outstanding Achievements in Water Science and Technology, and the Stockholm Water Prize.

Hayward Marsh Rehabilitation Project
Draft Project Concept
for BACWA Integrated Regional Water Management "Regional Project"

February 12, 2014

Introduction

This draft concept document for the Hayward Marsh Restoration Project was prepared so the information could ultimately be included in a larger ***Regional Project*** Concept document for submittal to the Bay Area Integrated Regional Water Management Plan (BAIRWMP) Coordinating Committee. The sections below were developed to respond to the BAIRWMP Request for Regional Concept Submittals for the Integrated Regional Water Management Implementation Grant Program.

Concept Submitter (Applicant) Information:
Applicant Organization: Union Sanitary District
Contact: Timothy Grillo, tim_grillo@unionsanitary.com, (510) 477-7561
Partnering Organizations: East Bay Regional Parks District, East Bay Dischargers Authority

Response to Request for Regional Concept Submittals

1. Inclusion in the 2013 Bay Area IRWM Plan

The Hayward Marsh Restoration Project is included in the 2013 Bay Area IRWM Plan, however it may need to be updated as the project details are developed. This project addresses the Goals of the new BAIRWMP (See Chapter 3 of the BAIRWMP), signified with an arrow → :

→ 1. *Promote environmental, economic and social sustainability* by and rehabilitating a marsh system with multiple benefits to resist sedimentation, thereby achieving more cost-effective maintenance which will in turn make the multiple benefits more sustainable
2. *Improve water supply reliability and quality*
→ 3. *Protect and improve watershed health and function and Bay water quality* by rehabilitating a system to reduce ammonia concentrations and loads to San Francisco Bay
→ 4. *Improve regional flood management* by providing dredged material to restore other wetland/marsh areas that also result in flood control
→ 5. *Create, protect, enhance, and maintain environmental resources and habitats* by rehabilitating significant wildlife habitat

The BAIRWMP contains 35 objectives that correspond to the above goals, and as the Regional Concept process proceeds, the project team will document how the Hayward Marsh Rehabilitation Project addresses many of those objectives.

2. Readiness to Proceed

It is expected that the Hayward Marsh Rehabilitation Project will be ready for construction in the 2015-2016 timeframe. At the present time, a Hayward Marsh Rehabilitation Options Study is being conducted to identify a selected detailed approach for the project. This process is expected to be completed later in 2014. After the project is selected, preliminary design, environmental documentation, engineering and final design, and permitting are all expected to occur within one year after that. It may be possible to begin, and complete, preparation of the environmental documentation sooner.

3. 25% Upfront Match

For purposes of this submittal, the Hayward Marsh Restoration Project is estimated to cost approximately $10 million to implement. This cost will be refined over the coming months. Of this amount, $5 million will be requested in IRWM grant funding, and project participants will secure funding for the balance of the project. Hence, an upfront match of 50% will be requested.

4. Defines Physical Benefits

The physical benefits to be quantified for this project may include one or more of the following:

- Rehabilitation of wetlands that reduce ammonia load to San Francisco Bay
- Acreage of habitat rehabilitated, including for species whose habitat is protected such as the California Least Tern
- Improved resilience to climate change or sea level rise
- Flood control features

5. Benefit/Cost Analysis

A detailed accounting of the benefits and costs associated with the physical benefits outlined in Item 4 will be developed as part of this project, consistent with the Department of Water Resources (DWR) Proposal Solicitation Package (PSP), as well as other resources such as the *Handbook for Estimating Economic Benefits of Environmental Projects* (December 2012) prepared for the North Bay Watershed Association by ECONorthwest.

6. Cash for Consultant

The Union Sanitary District together with the East Bay Regional Parks District agree to contribute an equitable share of funds for a regional application, which are expected to be between $10,000-$25,000 per project, depending on scale.

7. Regional Collaboration

The Hayward Marsh Rehabilitation Project fits into a larger Bay Area Clean Water Agencies (BACWA) Regional Project with an emphasis on nutrient reduction, because ammonia is reduced in Hayward Marsh and by rehabilitating the marsh so that ammonia reduction will continue into the future. Rehabilitation of the Marsh will allow for the continued

demonstration of the beneficial reuse of reclaimed water to create habitat and reduce ammonia loading to the San Francisco Bay.

8. Multi-objective – Achieves Multiple Benefits

The Hayward Marsh Rehabilitation Projects addresses three of the functional areas as follows:

- *Wastewater & Recycled Water* because treated wastewater, used as recycled water, is a water source for the marsh
- *Flood Protection & Stormwater Management*, because dredged material can be recycled and reused as fill for other climate adaptation projects within the region, for example Eden Landing
- *Watershed Management-Habitat Protection & Restoration* because significant wildlife habitat will be rehabilitated with this project, including for the California Least Terns, plus this project adds a source of fresh/brackish water to the nearshore Bay environment.

9. Amount of Grant Request

As indicated above, the amount of the grant request will be approximately $5 million for this project, with a 50% match to be secured by project participants.

10. Regional Impact/Effect

This project would be one of several projects accomplishing similar goals throughout the Bay Area, to comprise a total, comprehensive Regional Project.

<u>Criteria for Priority Needs</u>
The Hayward Marsh Rehabilitation Project meets the following priority needs:

- ***Climate Change*** by increasing levee height to address sea level rise and enhancing the ecosystem of the marsh, and continued useful wastewater management including re-use of wastewater as a resource or for wetlands enhancement
- ***Health of the Bay and Creeks*** by reducing ammonia discharges to San Francisco Bay, and by reusing wastewater in a beneficial way
- ***Sediment Management*** by reusing dredged material in a beneficial way instead of disposal (depending on sediment quality)

Please Note:
This Hayward Marsh Restoration Project concept is being submitted for this Regional Project, however the Union Sanitary District and the East Bay Regional Parks District reserve the right to later finalize a decision regarding which Regional Project to be included in for the Bay Area grant application.

Regional Nutrient Monitoring Program Infrastructure:
Moored Sensor Network + Research Vessel

1. Inclusion in 2013 BAIRWMP: New submittal

2. Readiness to proceed:

- Nutrient monitoring program development efforts are underway. Program calls for a network of moored sensors and ship-based sampling to assess condition, calibrate models, and ultimately inform nutrient management decisions
- Moored sensors
    - A draft set of moored sensor locations has been approximately and provisionally identified based on expert input in order to allow for focused analysis and iterative planning. Location refinement will occur through analysis of historic data, hydrodynamic/water quality modeling, pilot deployments, and consideration of logistics/maintenance.
    - The mooring infrastructure, including electronics/communications, sensor types (i.e., what to measure) and the specific sensor designs will be determined through a process that includes:
        - soliciting expert, regulator, and stakeholder input to identify necessary and feasible data collection that satisfies the needs for condition assessment and modeling
        - identifying the range of potential requirements of other collaborating programs or studies that may deploy instruments on these platforms, and who in the future may share in mooring maintenance cost.
        - pilot studies carried out in 2013-2015. Sensors have already been deployed at 3 pilot mooring locations, funded by the Regional Monitoring Program.
    - Final moored sensor program design will be completed by December 2015.
    - Need to identify permitting agencies (coast guard, etc.) and process.
- Research vessel
    - current USGS vessel that has been monitoring workhorse for past 4 decades will be retired.
    - USGS is willing/interested to share the cost of a refurbished research vessel for shared use, and has received authorization to allocate funds for acquiring a replacement vessel.
    - Unique opportunity to take advantage of federal cost match in terms of purchase, and subsequently in terms of captaining, docking, and maintaining vessel.
    - Federal funds could be available in the near term (CY2014).

3. 25% upfront Match:

- Moored sensor infrastructure: ~3000k
- Research Vessel: 800-1000k (refurbished vessel) (assume half covered by USGS)

Match:

- RMP funding for pilot stations (2013/2014 equipment + personnel ~ 425k)

- BACWA funds from FY2013 and FY2014 related to nutrient strategy development, data synthesis + monitoring program development ($900k)
- USGS contribution to vessel purchase ($400k)
- USGS essential personnel resources for research vessel (ship captain + engineer ~300k/year)
- USGS personnel resources for moored sensor maintenance (xxx)
- On-going BACWA and RMP resources for monitoring

4. Defines Physical Benefits:

(Note: Identifying the physical benefits of monitoring infrastructure will be challenging. The main benefits will come down to cost savings in the long run in terms of identifying the most cost-effective solutions to environmentally-effective nutrient load reductions)

- Studies indicate that conditions in SFB are trending toward a state in which adverse impacts from high nutrients could occur. Impacts could occur on multiple fronts, with potential for widespread effects on aquatic life and aesthetics.
- It is difficult to estimate the costs of widespread nutrient impacts in SFB. We know, however, that there is great benefit to preventing substantial impacts from occurring. The costs for reducing nutrient inputs to SFB differ tremendously - by billions of dollars -
- However, the Bay is not currently experiencing widespread impairment. Thus, exists a window of time to identify what nutrient load reductions will protect beneficial uses in the Bay, and the most cost-effective ways to achieve those reductions.
- Identifying protective levels of nutrients and the load-reduction scenarios that will deliver those protective levels requires a well-integrated program consisting of monitoring, modeling, future scenario analysis, and cost/benefit analysis.
- The benefits from the monitoring program would be realized on two main fronts:
    - allow for assessment of the Bay's condition, documentation of changing conditions in the Bay, and early-warning of adverse swings in response such as the occurrence of harmful algal blooms
    - provide data for model calibration…

5. Benefit/Cost Analysis

- The greatest benefit of this monitoring program will come through the critical information it provides for optimizing a regional approach to nutrient load reductions. Nutrient load reduction options differ in their costs by billions of dollars. The requested funding for monitoring program infrastructure is $4mill.
- If the nutrient monitoring data informs planning to such a degree that it helps managers identify an effective load reduction plan that costs $1bill less than other options, the Benefit/Cost = 250/1
- Another important benefit of a robust monitoring program would be realized through its ability to identify an approaching problem, and allow managers to react more quickly to prevent the problem from materializing. (How quickly could we realistically speed this up?).
- Another near-term benefit...the cost of the jointly purchased research vessel with USGS would pay for itself within <2 years (assuming 7 days/month on average over the year at

$3000/day).

6. Cash for consultant

7. Regional Collaborations

Key collaborators...do we need letters of support for concept proposal?

- Water Board
- USGS (Menlo Park, Sacramento)
- Interagency Ecological Program and DWR Environmental Monitoring Program (EMP)
- DFW
- Universities (?)
- South Bay Salt Pond Restoration...

8. Multi-objectives - Achieves Multiple Benefits

- Monitoring platforms can be used across a range of needs…
    - Health of the Bay and Creeks (water quality and biota)
    - Sediment management (sensors are used for this, too)
    - Riparian and fisheries restoration (low DO in margin habitats)
- The monitoring effort ultimately links back to informing costly and long-term decisions about how to best manage water resources in the Bay Area. While nutrient loads need to be reduced, it may be possible to do that without in the context of a longer-term plan that allows for greater water recycling and removal of other contaminants.

9. Amount of grant request: $4mill

10. Regional Impact:

				2013 Actuals (6/2013)	Notes	2014 Approved Budget	2015 DRAFT Budget	Notes
REVENUES								
	Dues			$579,000		$609,000	$621,180	
		Principals' Contributions		$420,000	EMBUD $30K In-kind	$450,000	$459,000	2% increase ($91,800)
		Assoc. & Aff. Contributions		$159,000		$159,000	$162,180	2% increase ($7,650 Assoc, $1,530 Affil)
	Fees			$449,000		$675,000	$975,000	
		Clean Bay Collaborative		$449,000		$675,000	$675,000	no increase from 2014
		Nutrient Surcharge		-		-	$300,000	
	Other			$18,027		$14,000	$10,500	
		Interest Income		$4,464		$4,000	$4,000	
		Special Program Admin Fees		$13,563		$10,000	$6,500	loss of BAPPG admin fee
TOTAL REVENUES				**$1,046,027**		**$1,298,000**	**$1,606,680**	
EXPENSES								
	Labor			$379,269		$340,000	$375,000	
		Executive Director		$222,670	Jim Kelly AND Dave Williams	$175,000	$178,500	2% increase
		Assistant Executive Director		$68,487		$75,000	$76,500	2% increase
		Regulatory Program Manager		$88,112		$90,000	$120,000	allow 2% increase in rate
	Committees			$102,312		$121,000	$145,000	
		Collections System		$25,007		$26,000	$26,000	
			RMC SSO Enforcement	$3,467	RMC SSO Enforcement		$0	
		Permit Committee		$0		$0	$1,000	
		Water Recycling Committee		$733		$10,000	$1,000	
			IRWMP Update	$8,448		$0	$0	
		Biosolids Committee		$2,832		$5,000	$5,000	
		InfoShare Groups		$11,825	$9,295 meetings (4 Ops/Maint, 1 Eng); $2,530 As Needed Tech	$25,000	$25,000	ED to investigate options; consider decrease to $20K? (9 meetings + $2,900 As Needed)
		Laboratory Committee		$0		$5,000	$5,000	
		BAPPG		$50,000		$50,000	$81,000	
		Pretreatment		$0		$0	$1,000	
	Legal			$5,981		$4,000	$4,000	
		Regulatory Support		$5,451		$2,000	$2,000	
		Executive Board Support		$530		$2,000	$2,000	

				2013 Actuals (6/2013)	Notes	2014 Approved Budget	2015 DRAFT Budget	Notes
	Collaboratives			$52,500		$36,500	$65,500	
		CWAA (US Water Alliance)		$1,000		$0	$0	DW - inquire w/ Board if they want to contribute $1K
		State of the Estuary		$20,000		$0	$20,000	every other year
		A. Navarret Award		$0		$1,000	$0	every other year
		FWQC (Fred Andes)		$10,000	FY2012 and 2013	$5,000	$5,000	
		CPSC (Ca Product Stewardship Council)		$5,000		$5,000	$5,000	
		PSI (Product Stewardship Institute)		$500		$500	$500	
		Stanford ERC (ReNUWIt)		$10,000		$10,000	$10,000	
		CWCCG		$0		$15,000	$25,000	
		WEF - Layperson's Guide		$6,000		$0		
	Communication			$10,946		$13,020	$9,500	
		Annual Report		$0		$5,000	$1,000	
		Website Development/Maintenance						
			web host	$600		$600	$600	
			cloud file storage	$720		$720	$720	
			web editing	$6,982		$5,000	$5,000	
			web tech	$1,193		$1,500	$1,500	
			e-mail	$0		$0	$480	
		Other Communication						
			newsletter application	$194		$200	$200	
			Media relations support	$657		$0	$0	
		Regional Outreach Campaign		$600		$0	$0	
	Meetings			$9,870		$13,000	$15,600	
		EB Meetings		$2,320	monthly catering; 2 orinda meetngs; 1 WB meeting	$1,000	$2,500	
		Annual Meeting		$1,546	free rental of Calendow; no lunch served	$7,000	$7,000	
		Pardee		$4,366		$5,000	$5,000	
		Misc.		$1,638	CS CMTE Boy Scouts rental; Summit Partners	$0	$1,100	summit partners
	Administration			$79,335		$47,000	$50,000	
		EBMUD Financial Service & Audit		$40,000		$40,000	$40,000	
		Administrative Expenses		$5,388		$3,000	$5,500	
		Insurance		$3,860		$4,000	$4,500	
		ED Recruitment		$30,087	Koff/Hanson Bridgett	$0	$0	

				2013 Actuals (6/2013)	Notes	2014 Approved Budget	2015 DRAFT Budget	Notes
	Technical Support			$271,441		$816,000	$1,416,000	
		Nutrients						
			consultant tech support	$6,161	HDR	$30,000	$0	
			SFEI	$183,271		$675,000	$880,000	
			Additional Work Needed Under Permit	$0		$0	$100,000	
			Nutrient Program Coordination	$0		$0	$0	to be considered by Board
			Sac Permit	$0		$10,000	$0	
			Sampling Plan			$0	$0	
			consultant tech support	$44,200	LWA	$20,000	$0	
			consultant tech support	$2,800	Jim Kelly	$15,000	$0	
			Collaboration Strategy Dev	$11,919	Leapfrog - Kayla Kirsch	$0	$0	
			Permit Report Assistance				$100,000	
			Optimization / Upgrade Studies				$250,000	
		General Tech Support					$50,000	
		ERS Transition - SFEI		$0		$0	$0	
		WW as a Resource		$0		$0	$0	
		Selenium		$0		$20,000	$0	
		Infrastructure		$0		$0	$0	
		PCBs		$0		$0	$0	
		Whole Effluent Toxicity		$4,950	RMC	$10,000	$0	
		Chemicals of Concern (K. Moran/CASA support)		$15,000		$15,000	$15,000	
		Risk Reduction		$0		$15,000	$15,000	
		Rate database		$3,140		$6,000	$6,000	consider enhancements, otherwise decrease to $5K?
		Hg Emissions Report		$0		$0	$0	
		Triennial Review - EOA		$0		$0	$0	
	Contingency			$0	2013 actuals shown in specific line items above	$64,900	$0	
TOTAL EXPENSES				**$911,654**		**$1,455,420**	**$2,080,600**	
NET INCOME BEFORE TRANSFERS				**$134,373**		**-$157,420**	**-$473,920**	
TRANSFERS FROM RESERVES				**-$134,373**		**$157,420**	**$473,920**	
NET INCOME AFTER TRANSFERS				**$0**		**$0**	**$0**	

Bay Area Pollution Prevention Group (BAPPG) 2014/2015 Workplan

Pollutant/Driver	Projects	Description	Project Managers	Budget
Mercury (Regulatory)	Outreach to Dental Assistants/ Hygeniests & Demolition Contractors	Continue regional training/outreach campaign to multiple professional groups, including dental assistants/hygienists and demolition contractors.	Manon Fisher, SFPUC Stephanie Olson, Dublin/SR Karin North, Palo Alto Melody LaBella, CCCSD	$4,000
Copper (Regulatory)	Training and Outreach to Professional Organizations to Reduce Copper Pipe Corrosion	Continue regional training/outreach campaign to multiple professional groups, including plumbers and building inspectors.	Manon Fisher, SFPUC Stephanie Olson, Dublin/SR Karin North, Palo Alto Melody LaBella, CCCSD	$4,000
Dioxin (Regulatory)	Partnership with Air District	Partner with the Bay Area Air Quality Management District to support their annual "Spare the Air" campaign that seeks to reduce wood burning. **October**.	Karri Ving, SFPUC Karin North, Palo Alto	$2,000
Nutrients (Regulatory)	Literature Review	Conduct literature on any source control measures that could be employed to reduce sources of ammonia and/or nitrogen to the wastewater stream.	Manon Fisher, SFPUC Karin North, Palo Alto Melody LaBella, CCCSD	$4,000
FOG (Regulatory) (Operations)	Asian Holiday Outreach	Prepare radio spots and other Asian language outreach for the **Lunar New Year holiday season**. Explore partnering with SFPUC Chinese New Year coordinators to use event as a forum to point people to Baywise for information.	Karri Ving, SFPUC Manon Fisher, SFPUC	$6,000
	Eat Real Foods Festival	Outreach for the Eat Real Foods Festival scheduled in **September** at Jack London Sq.	Robert Wilson, Petaluma Marie Kulka, EBMUD Darcy Aston, Napa Nadia Borisova, EBMUD Joe Neugebauel, WCWD Dylan Garner	$1,000
	Regional Holiday Outreach w/ Spanish	Utilize Unavision to promote FOG pollution prevention messages in both English and Spanish during the **Thanksgiving to Christmas** timeframe.	Jennifer Seguin, San Jose Paul Prange, San Jose	$8,000
	Commercials on Comcast/Local cable	Explore and develop concept for commercials regarding proper handing of food grease on local cable stations. Identify various available videos that can be reformatted and placed on the Baywise site; include the SFGreasecycle.org video. **Thanksgiving** timeframe.	Robert Wilson, Petaluma Manon Fisher, SFPUC Nadia Borisova, EBMUD Jennifer Seguin, San Jose	$2,000
Pharmaceuticals (Pre-regulatory)	Hospice	Continue regional training/outreach campaign to multiple professional groups, including nursing students and hospice workers on proper pharmaceutical disposal.	Jennifer Seguin, San Jose Paul Prange, San Jose Manon Fisher, SFPUC Karin North, Palo Alto Melody LaBella, CCCSD	$4,000
	SB 727 Support (Product Stewardship)	Work with CPSC to provide support for SB 727 through letters of support, meetings with legislators, etc.	Susan Hiestand, SBSA Darcy Aston, Napa Jackie Davison, Sunnyvale Stephanie Olson, Dublin/SR Joe Neugebauel, WCWD Dylan Garner Karin North, Palo Alto Melody LaBella, CCCSD	$0
	No Drugs Down the Drain	Online regional campaign encouraging proper pharmaceutical disposal (**October timeframe**).	Jennifer Seguin, San Jose Paul Prange, San Jose Karin North, Palo Alto Karri Ving, SFPUC	$4,952
Pesticides (Regulatory)	"Our Water Our World" Program	Continue the regional "Our Water Our World" IPM Partnership between BAPPG and BASMAA, which encourages the use of less-toxic pesticides through the use of shelf talkers, product lists, regional events and trade shows, advertising and the OWOW website. Funding for this program has traditionally been 50% BAPPG and 50% BASMAA. **October.**	Jennifer Kaiser, Vallejo Robert Wilson, Petaluma	$10,000
	Permethrin/ Fipronil Outreach	Educate Pet Stores - Partner with Pet Care industry (dog washes, vets, pet smart, groomers, FLEABUSTERS.) School Partnerships, nontoxic head lice and nit removal, scabies, bed bugs. **October.**	Paul Prange, San Jose Susan Hiestand, SBSA Jennifer Seguin, San Jose Melody LaBella, CCCSD	$4,000
	Grow It! Guide	Get tally of agencies that need "Grow it guide" and work with SFPUC communications to get electronic version	Karri Ving, SFPUC Manon Fisher, SFPUC	$0
Multi-Pollutant Campaigns (SSO)	Toilets Aren't Trash Cans! Outreach to Parent Groups, Multi-family Buildings, Neighboorhood Associations and Hospital/Long-term Care Facilities	Promote the toilet is not a trashcan message. Print handout(s) (developed in 11/12) and distribute to target audiences and for daycare counters. Submit info articles to parent magazines. Develop materials and educate parents groups about multiple pollutant issues. Develop a 'dirty dozen' poster, targeted for young kids.	Nadia Borisova, EBMUD Andrew Alva, Rodeo Jackie Davison, Sunnyvale Paul Prange, San Jose	$3,000
Miscellaneous (Regulatory) (Public Outreach)	Agency Coordination of P2 Week	**August:** Agency coordination of regional outreach during P2 week (**3rd full week of September**). Outreach could include an online campaign or development/printing of a P2 Week poster.	Mike Auer, USD Jackie Davison, Sunnyvale Melody LaBella, CCCSD	$5,000
	Comment Letters	Draft press releases and comment letters on regulatory and legislative issues as needed.	Mike Auer, USD Karin North, Palo Alto Melody LaBella, CCCSD	$4,000
	Maintenance of BAPPG website	Hire a consultant to provide maintenance and development of www.BayWise.org for use in public outreach campaigns.	Robert Wilson, Petaluma Manon Fisher, SFPUC	$3,000
		Budget for training BAPPG members on how to post and update the Baywise.org website and to generate "Guidelines for Updating Baywise."	Susan Hiestand, SBSA Dylan Garner, SFRWB Paul Prange, San Jose Marie Kulka, EBMUD	$2,000
	Available P2 speakers & Presentations	Develop a list of speakers for a variety of P2 topics and presentations and post list to Baywise.	Catherine Allin, Millbrae	$0
	PSI and CPSC Representation	Provide BACWA/BAPPG representation to the Product Stewardship Institute and the California Product Stewardship Council.	Susan Hiestand, SBSA Jennifer Seguin, San Jose Paul Prange, San Jose Dylan Garner (Melody LaBella, CCCSD) (Karin North, Palo Alto)	$0

Bay Area Pollution Prevention Group (BAPPG) 2014/2015 Workplan

Pollutant/Driver	Projects	Description	Project Managers	Budget
Triclosan (Pre-regulatory)	Creative Outreach Collateral Needed	Develop social marketing campaign targeting outreach toward specific products and consumer groups	Jackie Davison, Sunnyvale Susan Hiestand, SBSA Debbie Gehret, Pacifica Dylan Garner	$3,000
Metals/oils (Pre-regulatory)	Mobile surface cleaners	Partner with BASMAA to develop cleaning certificates for mobile surface cleaning permits. Expand CCCSD's current certification program to a regional program.	Karri Ving, SFPUC Tim Potter, CCCSD	$0
Alkyl Phenol Ethoxylates (Pre-Regulatory)	Commerical Laundry	Hospitals, prisons, schools, etc. Identify sources then propose outreach.	Paul Prange, Palo Alto	$3,000
Emerging Constituents	Research and Tracking	Micro-plastics, Alternative flame retardants, NPCD, Nano-everything	Susan Hiestand, SBSA Aparna Chatterjee, Hayward Dylan Garner	$3,000
Unplanned Issues	Unplanned Issues Budget	The purpose of this budget item is to respond to emerging issues/needs throughout the fiscal year. Possible expenditures include media outreach, literature searches, website enhancement, training costs, etc.	Mike Auer, USD	$15,000

Projects Budget				**$80,952**

2013 Population and Nutrient Loads

Facility	Facility Type	Facility Location	Flow (Ave Daily)	kg/d TN	NO3	NH3	TP	Population	N/Person	P/Person	FY2014 CBC Contribution	N Surcharge Based On TN	N Surcharge Based On NH3
San Jose/Santa Clara Water Pollution Control Plant	Advanced Secondary	Lower South Bay	92.8	5232.8	4353.8	288.1	331.9	1365000	3.8	0.2	$90,000	$40,000	$40,000
East Bay Municipal Utility District	Secondary	South Bay	60.4	10583.1	1001.1	8055.3	973.3	654700	16.2	1.5	$90,000	$40,000	$40,000
EBDA	Secondary	South Bay	64.0	8641.4	636.4	6827.5	554.6	636000	13.6	0.9	$90,000	$40,000	$40,000
-DSRSD											$750		
-Livermore											$750		
Southeast Water Pollution Control Plant CCSF	Secondary	South Bay	58.3	8306.7	420.5	7257.7	101.0	556000	14.9	0.2	$90,000	$40,000	$40,000
Central Contra Costa Sanitary District	Secondary	Suisun Bay	38.0	4187.1	206.2	3544.3	138.4	462000	9.1	0.3	$90,000	$40,000	$40,000
TOTAL N surcharge for Principals												$200,000	$200,000
City of Palo Alto RWQCP	Advanced Treatment	Lower South Bay	21.1	2340.7	2258.0	11.7	336.0	228500	10.2	1.5	$32,406	$13,463	$140
South Bayside System Authority	Secondary	South Bay	13.2	2118.3	54.2	1890.4	171.4	217000	9.8	0.8	$15,231	$12,184	$22,647
Delta Diablo Sanitation District	Secondary	Suisun Bay	7.0	1724.8	875.3	773.0	33.3	200000	8.6	0.2	$13,147	$9,921	$9,261
City of San Mateo	Secondary	South Bay	11.3	1500.9	85.9	1232.6	123.9	137000	11.0	0.9	$13,990	$8,633	$14,766
City of Sunnyvale	Advanced Treatment	Lower South Bay	10.5	1085.7	639.5	333.8	213.3	136000	8.0	1.6	$11,752	$6,245	$3,999
Fairfield - Suisun Sewer District	Advanced Secondary	Suisun Bay	13.9	1326.6	1293.9	1.6	195.6	135000	9.8	1.4	$13,101	$7,630	$19
Central Marin Sanitation Agency	Secondary	San Pablo Bay	7.7	902.8	89.3	750.4	88.5	129000	7.0	0.7	$8,529	$5,193	$8,990
Vallejo Sanitation & Flood Control District	Secondary	San Pablo Bay	10.9	845.3	314.5	402.7	128.1	120000	7.0	1.1	$12,603	$4,862	$4,824
West County Agency	Secondary	San Pablo Bay	8.5	850.4	119.6	652.4	56.8	93000	9.1	0.6	$13,541	$4,891	$7,816
-City of Richmond											$750		
Napa Sanitation District	Secondary + ??	San Pablo Bay	11.1	509.0	285.4	114.0	48.2	75000	6.8	0.6	$6,391	$2,928	$1,365
South San Francisco-San Bruno Water Quality Control	Secondary	South Bay	9.1	1164.9	122.6	807.5	153.3	64000	18.2	2.4	$14,577	$6,700	$9,674
Novato Sanitary District	Secondary + ??	San Pablo Bay	4.8	252.6	209.2	11.2	23.3	60000	4.2	0.4	$4,101	$1,453	$134
City of Petaluma	Secondary + ??	San Pablo Bay	6.9	70.9	35.2	7.2	49.7	58000	1.2	0.9	$4,807	$408	$86
Pinole-Hercules WPCP	Secondary	San Pablo Bay	2.7	347.4	82.1	216.6	33.7	42400	8.2	0.8	$4,342	$1,998	$2,594
City of Burlingame WWTF	Secondary	South Bay	3.0	459.1	65.6	297.1	94.8	37000	12.4	2.6	$4,122	$2,641	$3,559
Las Gallinas Valley Sanitary District	Secondary + ??	San Pablo Bay	2.7	261.0	228.6	20.1	40.1	30000	8.7	1.3	$3,372	$1,501	$241
Sewerage Agency of Southern Marin	Secondary + ??	Central Bay	2.3	240.7	166.4	45.5	42.0	28000	8.6	1.5	$7,501	$1,384	$545
City of Benicia WWTP	Secondary	Suisun Bay (Carquinez Straigh	2.2	223.2	10.5	192.7	26.6	28000	8.0	0.9	$3,232	$1,284	$2,308
City of Millbrae WPCP	Secondary	South Bay	1.5	250.5	0.5	229.6	15.6	22000	11.4	0.7	$3,132	$1,441	$2,751
City of American Canyon	Advanced Secondary	San Pablo Bay	1.7	66.3	58.6	1.7	26.1	20000	3.3	1.3	$750	$382	$20
Mt. View Sanitary District	Advanced Secondary	Suisun Bay	1.5	134.1	125.8	4.5	18.2	19000	7.1	1.0	$2,387	$772	$54
Sausalito - Marin City Sanitary District	Secondary	Central Bay	1.8	157.7	76.1	56.3	25.1	18000	8.8	1.4	$3,167	$907	$674
Sonoma Valley County Sanitation District	Secondary + ??	San Pablo Bay	3.7	118.7	104.2	3.6	40.4	17000	7.0	2.4	$3,346	$683	$43
Rodeo Sanitary District	Tiny Plant	San Pablo Bay	0.7	41.4	32.2	5.3	9.3	8000	5.2	1.2		$238	$63
San Francisco International Airport - MLTP	Secondary	South Bay	1.1	235.9	16.5	215.1	15.0	6414	36.8	2.3	$1,735	$1,357	$2,577
City of Calistoga WWTP	Tiny Plant	North of SF Bay	1.1	57.7	29.5	22.2	6.6	5200	11.1	1.3	$951	$332	$266
Sanitary District No.5 of Marin County Main Plant	Secondary	Central Bay	0.6	61.2	11.8	40.8	8.2	5000	12.2	1.6	$1,449	$352	$489
Town of Yountville	Tiny Plant	North of SF Bay	0.4	23.1	14.7	7.1	3.8	2933	7.9	1.3	$1,088	$133	$85
Treasure Island Water Pollution Control Plant	Tiny Plant	Central Bay	0.3	12.9	9.2	0.7	1.8	2400	5.4	0.7		$74	$8
Sanitary District No.5 of Marin County Paradise Cove	Tiny Plant	Central Bay	0.0	2.1	1.6	0.2	0.3	2000	1.0	0.1		$12	$2
City of St. Helena											$750		
BACWA Collection System Agencies											$16,500		
		TOTALS FOR BACWA MEMBERS		17385.8		8347.2						$300,000	$300,000

2013 Population and Nutrient Loads

Facility	Facility Type	Facility Location	Flow (Ave Daily	kg/d TN	NO3	NH3	TP	Population	N/Person	P/Person	FY2014 CBC Contribution	N Surcharge Based On TN	N Surcharge Based On NH3
Sewer Authority Mid-Coastside (SAM)	Ocean										*$750*		
North San Mateo Sanitation District (Daly City)	Ocean										*$750*		
Pacifica	Ocean										*$750*		
Chevron Refinery	Industrial (Petroleum)	Central Bay	6.4	441.1	401.5	14.0	90.8	Average Loads	9.5	1.1			
Phillips 66 San Francisco Refinery	Industrial (Petroleum)	San Pablo Bay	2.5	209.1	199.9	0.4	4.3						
Valero Refining Company - CA	Industrial (Petroleum)	Suisun Bay	2.0	191.0	163.5	2.6	0.6						
Shell Martinez Refinery	Industrial (Petroleum)	Suisun Bay	5.3	178.7	72.9	62.7	3.4						
Tesoro Golden Eagle Refinery	Industrial (Petroleum)	Suisun Bay	4.8	152.9	20.5	102.2	2.7						
Phillip F. Meads Water Treatment Plant	Industrial (Non-Petroleum)	Suisun Bay (Carquinez Straigh	0.9	20.0	11.3	8.9	4.9						
TOTAL N surcharge for non-Principals												*$100,000*	*$100,000*

CRITERIA FOR DECISION MAKING ON REQUESTS FOR FUNDING COLLABORATIVE INITIATIVES OR SPONSORSHIPS

THRESHOLD CRITERIA

Are there funds available in the current fiscal year budget line item where these types of initiatives are specifically budgeted? ***If not, optional funding mechanisms should be identified.***

ADDITIONAL CRITERIA

1. Is the mission of the organization making the request or the specific initiative for which funding is sought sufficiently aligned with BACWA's mission or specific initiatives to warrant funding? ***It is preferable to have a linkage to BACWA's mission or initiatives.***

2. Will there be any direct benefit to BACWA or its membership? ***It is preferable to have a direct measurable benefit to BACWA or a majority of its membership.***

3. Will there be any accountability as to how the funds are spent? ***It is preferable to have some feedback mechanism, as to how specifically the funds were used.***

4. Is the request for a one time contribution or is it a recurring contribution; or is there an expectation of a recurring contribution? ***A one-time contribution is preferable.***

5. Are there identified upsides to BACWA making the contribution? ***Identified upsides which may warrant approving the request include furthering environmental protection, increasing public awareness of their role in pollution prevention, advancing technology associated with wastewater treatment, etc.***

6. Is the amount requested in-line with other BACWA contributions? ***If a request is greater than $25,000 or cumulatively more than $50,000, need to ensure compliance with BACWA policies and JPA requirements.***

7. In exchange for the contribution does BACWA gain a voice in the initiative or the activities of the organization? ***BACWA being offered a voice in the governance associated with the completion of the initiative or carrying out the mission of the organization is preferable.***

8. Is the request for use of discretionary funds a high priority relative to other such requests? ***If so, consideration should be given to approving the request assuming funds are available.***

SCHEDULE OF ACTIVITES TO MEET WS PERMIT REQUIREMENTS FOR STUDIES

DATE	ACTIVITY	STATUS
1/24/2014	***request estiamte from HDR for preparing the Scope of Work for the Optimization/Upgrade studies***	***completed***
1/30/2014	***Alert membership at Annual Meeting to the regional approach for conducting studies***	***completed***
2/4/2014	***Authorized (via chair authority) HDR to proceed with preparation of the Scope of Work***	***completed***
2/28/2014	HDR delivers draft Scope of Work	
2/28 - 3/7/14	Ad Hoc BACWA group discusses draft Scope of Work with HDR	
3/10/2014	HDR delivers final draft of Scope of Work	
3/10 - 3/21/14	BACWA distributes draft Scope to interested consultants seeking input on completeness and rough estimates of level of effort	
3/21 - 4/11/14	BACWA and HDR meet with WB staff to get preliminary feedback on the Scope of Work and deliveralbes	
4/16/2014	WS Permit adopted by RWQCB	
5/1/2014	BACWA sends out RFP	
5/23/2014	receive proposals	
5/23 - 7/11/14	form selection panel, review proposals, hold interviews, make selection	
7/11-8/9 2014	form an internal BACWA project management team supported by RPM to negotiate and manage the contract	
next 36 months	-periodic management team meetings/conference calls -quarterly updates to the BACWA Board -agendized at the bimonthly BACWA/WB Joint Meetings -agendized at the Annual Meeting -monthly updates in the BACWA Bulletin	
8/15/2014	BACWA awards a contract for preparation of a **Scoping Plan** and **Evaluation Plan** to be submitted to the WB	
9/12/2014	**Scoping Plan** submitted to WB **(permit deadline December 1, 2014)**	
9/15 - 10/10/14	consultant prepares a detailed **Evaluation Plan**	
10/24/2014	**Evaluation Plan** submnitted to the WB **(permit deadline July 1, 2015)**	
10/27 - 11/14/14	BACWA management team negotiates conttract for conducting studies based on **Evaluation Plan**	
11/21/2014	contract awarded	
7/1/2015	Status Report to WB	
7/1/2016	Status Report to WB	
7/1/2017	Final report submitted to WB, one year ahead of schedule	

ACTIONS FROM THE 5TH GOVERNANCE TASK FORCE MEETING - 2/13/14

Charter Section	Description	Type of Action	Responsible
3.0 Principles	move the second bullet "Develop credible…" to the top of the list of Guiding Principles	modify charter text	DC
	move the first bullet "Support the appropriate…" to the end of the list of Guiding principles	modify charter text	DC
	agreed the theme of the Principles should be 1. don't duplicate work 2. transparent decision making 3. transparent science	agreement	all
4.2 SC	table page 5, indicate that BACWA has two seats on SC	modify charter text	DC
	re-send language justifying BACWA having two seats	send email	DW
	delete reference to calendar year but reference Appendix A as near term tasks and acknowledge that task will change over time	modify charter text	DC
	Bay Area County Farm Bureau is probably the most relevent representative for the Ag community	agreement	all
	WSPA and AG should stay on SC list of invitees at this time since the impact of their loadings is not clear at this time	agreement	all
	separate USFWS from NMFS	modify charter text	DC
	add USGS to SC	modify charter text	DC
	two seats should be indicated for the WBs, Region 2 and 5	modify charter text	DC
	add language that SC can propose new members "invitees" who must go through the same steps as entities requesting to join the SC	modify charter text	DC
	indicate that initially, the meetings may be more frequent	modify charter text	DC
	indicate that not all meetings will be facilitated	modify charter text	DC
Letters of Invitation	in the letter of invitation, remove reference to BACWA being an initator of the Governance structure, this should be a WB driven effort	modify draft letter	WB
	letter should not suggest that invitees can suggest others to join the SC	agreement	all
	in the letters of invitation state why the group being invited is being requested to join the SC	modify draft letter	WB
	letter of invitation needs general overall editing	modify draft letter	WB
	the Nutrient Technical Workgroup has already started so no need to send letter of invitation	agreement	all

Charter Section	Description	Type of Action	Responsible
Other Items	final edits due by end of day Friday the 21st	agreement	all
	Charter is an "evergreen" document and SC membership may change over time	agreement	all
	But for editorial fixes, the Charter generally looks OK	agreement	all
	Important to ensure the RMP schdule meshes with the SC efforts, RMP will have their science plan developed by May	agreement	all
	there is a need for development of a "Science Plan Light" that documents everything that has been done and that is being done and lays out a "no regrets" workplan	agreement	DS
	initially the total funds wil be around $1.5M/yr for the Science Plan, RMP money availalbe Jan 1st, BACWA funds avaialbe Jul 1st.	agreement	all
	there will need to be robust meeting management rules in place at the beginning to help ensure a successful kick-off of the SC	agreement	all
	First meeting of the SC is set for April 22, 2014	**agreement**	**all**
	a draft agenda for the first meeting needs to be prepared	agreement	DC
	a critical path of activties between now and April 22nd needs to be developed, with review by the Task Force	agreement	NF/DW

D R A F T V 3

February X, 2013

CHARTER

The San Francisco Bay

Nutrient Management Strategy

Purpose, Organization, and Governance of the Nutrient Management Strategy

1.0 Introduction and Background

San Francisco Bay is recognized as a nutrient-enriched estuary. Nonetheless, dissolved oxygen concentrations found in the Bay's subtidal habitats are much higher and phytoplankton biomass and productivity are substantially lower than would be expected in an estuary with such high nutrient enrichment, implying that eutrophication is potentially controlled by processes other than straightforward nutrient-limitation of primary production. There is a body of evidence that suggests the historic resilience of San Francisco Bay to the harmful effects of nutrient enrichment is weakening. The indications of decreased Bay resilience have come to the fore at a time when the availability of resources to continue assessing the Bay's condition is uncertain. Notwithstanding historic contributions to water quality sampling and monitoring by various independent organizations, there is a need for a locally-supported, multi-interest, long-term science strategy and associated implementation program to provide information that is needed to support nutrient-related management decisions in the Bay. This approach has been proposed to be the "San Francisco Bay Nutrient Management Strategy" (NMS). The NMS will define and guide this science, implementation, information-sharing, and public outreach approach. As such, the NMS and the work of stakeholders supporting the NMS (described below) will inform policies specifically decided by the San Francisco Regional Water Quality Control Board (Regional Board).

> *Note: The State Water Resources Control Board (State Board) and Regional Board ~~San Francisco Regional Water Quality Control Board (Regional Board)~~ started a technical and related stakeholder process to study and address nutrient over-enrichment in San Francisco Bay in 2010. The NMS is an extension of that ongoing effort. As such, certain aspects of the NMS are similar or identical to activities under way however, these activities have not been previously defined as part of a comprehensive strategy.*

2.0 Charter Purpose

This Charter describes how the NMS functions. In addition to the Introduction above and this purpose / organization section, this Charter includes descriptions of the following:

- Guiding Principles that frame and inform the NMS,
- Organizational Structure of the NMS including various groups and individual personnel,
- Roles and responsibilities of NMS groups and personnel.
- Selection criteria and methods for organizations / individuals serving the NMS,
- Decision-making protocols for NMS groups,
- Communication protocols for NMS Groups,
- Operating Guidelines for NMS Groups, and
- Closure procedures for the NMS

The Charter is a "living document" and should be reviewed and periodically revised to reflect current and projected conditions for the NMS. Review and revision protocols are described below in Section 5.0

3.0 Guiding Principles of the San Francisco Bay Nutrient Management Strategy

The following principles define the intentions and expectations of the participants leading, serving, and associated with the NMS. The NMS will:

- Support the appropriate involvement of all stakeholders affected by, and interested in nutrient conditions in the waters of San Francisco Bay (Bay) (including tributaries).
- ~~Avoid significant overlap and/or duplication of other stakeholder and technical efforts in the Bay-Delta region.~~
- Develop credible, feasible, scientific recommendations for the Bay and associated waterways that are created through collaborative discussions representing multiple interests.
- Communicate transparently and proactively with other stakeholder and technical efforts in the Bay-Delta region to ensure efficiency and minimize overlaps and duplications with other efforts.
- Conduct all decision-making in an accessible and transparent manner.
- Support transparent, peer-reviewed scientific studies.
- Be cost and time efficient in the development and review of studies and decision-making related to these studies.
- Minimize excessive and time consuming "process" and focus on efficient, transparent, and equitable work between affected stakeholders and technical specialists

4.0 San Francisco Bay Nutrient Management Strategy Organizational Structure

Figure 1 illustrates the NMS Organizational Structure. The following describes the functions, roles, membership, membership criteria, decision-making, and operating protocols of the various groups in the NMS organizational structure.

4.1 Stakeholder Advisory Group (SAG). The SAG is an ad hoc group of stakeholders interested in and affected by the development and implementation of the NMS. All SAG meetings are open to the public and are publicly noticed. SAG meetings are held in various formats including in person, virtual web-based meetings, and /or conference call settings. SAG meetings are convened by the ~~Regional Board~~ Steering Committee (described below)~~, approximately on a quarterly basis~~ on an as-needed basis. At times the Regional Board may also convene the SAG as a means to inform stakeholders about activities unique to the Board's roles and responsibilities. ~~The SAG can be convened on a more frequent basis when deemed necessary by the Regional Board and/or the NMS Steering Committee (described below).~~

SAG Role: The SAG reviews materials provided by the Steering Committee (and at times the Regional Board) ~~Regional Board~~ and work products presented and distributed by technical specialists related to the NMS (described below). The SAG discusses these materials and NMS activities ~~/ schedules~~. Information and outcomes from SAG meetings are provided to the Steering Committee and when feasible and appropriate, are considered by the Committee as it makes decisions.

SAG Membership: The SAG has no formal membership or membership criteria. It is open to all interested parties

SAG Decision-Making: The SAG does not make any decisions.

SAG Operating Protocols: The SAG is facilitated by either a representative of the Regional Board, or a neutral third-party facilitator (when warranted). Agendas are prepared by the Steering Committee ~~Regional Board~~ (with support from a facilitator and NMS Science Manager). ~~All~~ When feasible and appropriate, Science Core Team recommendations (described below) ~~must~~ may ~~first~~ be discussed at the ~~public~~ SAG meeting before being submitted to the Steering Committee for decision-making.

4.2 Steering Committee: The Steering Committee is a formal stakeholder body, structured to reasonably but not exhaustively represent various interests affected by the NMS and nutrient conditions in the Bay-Delta. The Steering Committee has formal membership. Members are invited to serve on the Steering Committee by the Regional Board Executive Officer (Executive Officer) (or a designee). All Steering Committee meetings are open to the public and are publicly noticed. Steering Committee meetings are held in various formats including in person, virtual web-based meetings, and /or conference call settings. Meetings are facilitated by a third party, neutral facilitator. Meetings are self-convened and occur on an as-needed basis (generally not to exceed every four months) ~~approximately every XX months~~.

Steering Committee Role: The role of the Steering Committee is to be the decision-making body for many NMS decisions (excluding policy and regulatory decisions). All recommendations and information from various groups in the organizational structure ultimately "flow" to the Steering Committee to make decisions. The tasks the Steering Committee addresses will change over the timeline of the NMS. Anticipated tasks will be reflected in the Charter. The following is a current list of tasks to be conducted by the Steering Committee for calendar year 2013 - 2014. Appendix A presents brief descriptions of these tasks.

- Determine funding needs for upcoming years and coordinate needs with other organizations.
- Determine long term funding outlook.
- Track and get closure on NMS reports.
- Clarify and confirm interface with the Regional Monitoring Program, US Geological Survey (USGS), and potential other monitoring activities.

- Select NMS Peer Reviewers.
- Select Science Core Team members.
- Scope NMS Plans

Steering Committee Member Selection: Steering Committee membership reflects a representative but not exhaustive range of stakeholders affected by, and involved with nutrient load research and regulation in the Bay Delta. Membership is by invitation from the Executive Officer (or a designee) who using the following criteria, will seek to ensure a balanced set of interests. Appointment as a Steering Committee Member will be based on the invitee's acceptance of all requirements expected of them and as described in the invitation letter from the Executive Officer.

Member Types and Selection Criteria

1. Nutrient Dischargers – Discharger members will represent a range of discharger types that are commonly believed to exceed de minimis levels of nutrient loading into the Bay-Delta.
   NOTE: As of the current date of this Charter, accurate characterization of Bay-Delta nutrient loading by dischargers has not been completed. This is an item to be addressed during the NMS process. In the interim, determining appropriate representatives to the Steering Committee based on their discharge level will be a qualitative decision by the Executive Officer based on best professional judgment.
2. Environmental Advocates – one or more environmental advocates will be included as Members. Environmental Advocate selection will be based on the organizations' and/or individuals' having an established record of being engaged in, and knowledgeable about water quality conditions and regulations in the Bay Area.
3. Water Quality Regulatory Agencies – One representative each from the San Francisco Regional Board, the Central Valley Regional Board, and from the US Environmental Protection Agency (EPA) Region IX.
4. Resource Trustee Agencies – One representative each from the California Department of Fish and Wildlife (CDFW), and either the US Fish and Wildlife Service (USFWS) or National Marine Fisheries Service (NMFS).
5. Regional Agency-Based Research Organization – One representative from the Interagency Ecological Program (IEP) and/or the Delta Science Program.

Steering Committee Membership: Current Steering Committee Members are:

• Baykeeper	• Bay Area County Farm Bureaus*
• USEPA	• Western States Petroleum Association*
• BACWA*	• State Water Contractors*
• Regional Boards	• BASMAA*
• IEP*	• Sacramento Regional County Sanitation District

• CDFW	• USFWS / NMFS

* *As a basis for inclusion, some ~~target~~ organizations that have similar interests and are made up of constituent members will identify a single representative to serve on the Steering Committee and to use ~~and/or create~~ networks, caucuses, or similar to communicate about the NMS with their interest-based colleagues. Willingness to serve this role will be a basis for invitation and approval by the Regional Board Executive Officer.*

Steering Committee Alternates: Given the volume of information to be considered and various demands on Member's schedules, Alternates may be used by a participating organization. Alternates must be identified in advance, fully briefed, and able to represent the Member and Member's constituents during decision making. Alternates are expected to be kept up to date on all project activities by their Member representatives and are expected to attend on behalf of a Member, fully prepared to discuss agenda items. No items addressed at previous meetings will be revisited to accommodate an Alternate.

Steering Committee Member Resignation / Replacement: Members and/or their organization may resign from the Steering Committee. They are encouraged to do the following:

- Provide written resignation communication (e.g., letter, email) to the Executive Officer.
- Recommend a replacement either from the Member's organization, or from a similar interest organization.

Steering Committee Member Removal: Members are expected to uphold their commitments to participate in all Steering Committee meetings, review all materials in a timely manner, and be prepared to provide input and participate in Committee decision-making. If a Member does not fulfill these commitments, they can be removed from the Steering Committee and be replaced by either another person from the previous Member's organization, or a new organization that represents similar interests as those of the previous organization. A Member will be removed through the following steps

- The Executive Officer (or a designee as directed by the Executive Officer) will directly intervene and contact the Member in question to inform them that they are not fulfilling their commitments. This intervention may come as a result of anecdotal information provided to the Executive Officer or as a result of a report from any other Member(s) of the Steering Committee.
- The Member in question (and their organization) will be allowed time (as determined by the Executive Officer or a designee) to resolve their participation challenge and fulfill their commitments to the process.
- If after the prescribed period of time, the Member in question does not resolve their participation challenges, the Executive Officer (or a designee as directed by

the Executive Officer) will provide a removal recommendation to the Steering Committee for discussion.

- Steering Committee discussion will take place at either the next available meeting or through a special session (if needed) to discuss the proposed removal and a summary of the discussion will be provided to the Executive Officer.
- The Executive Officer will be advised by the Steering Committee however the Executive Officer will retain the sole decision authority to remove the Member and or organization and to start member replacement steps.

Steering Committee New Member Addition: In the event a new person/organization requests to become a Member on the Steering Committee (beyond attending as a member of the public), or a Member is removed and an open position is created on the Steering Committee, the person / organization must do the following and the Steering Committee will conduct the following review steps:

1. The prospective new Member will submit a letter of application to the Executive Officer (or designee) describing why their interest is unique and is not adequately represented on the Steering Committee.
2. The Facilitator will agendize consideration of the request at the next appropriate Steering Committee meeting.
3. The Steering Committee will review the application and will decide if the requested position is warranted to be added to the Steering Committee. Criteria for new Member addition should include the following.

    - Will the applicant add interests / perspectives, geographic representation, funding capacity for the NMS, and/or some other form of diversity not currently served on the Steering Committee?

    The Steering Committee will make an administrative decision (as per decision methods described below) and will provide a recommendation to the Executive Officer. If the applicant is approved, the Executive Officer will issue a standard invitation letter to the applicant.

Steering Committee Decision-Making: As a voluntary partnership of diverse organizations, the Steering Committee is not "consensus based". Organizations do not necessarily have the authority to implement binding decisions. Therefore, all elements of the NMS are "consensus-seeking" wherein, each part of the organizational structure takes reasonable and appropriate steps to reach consensus (as described below).

Consensus-Seeking Decision Method. The consensus decision method is based on principles of "consensus with accountability". Consensus with accountability requires all participants to try to reach consensus while at all times supporting and expressing their self-interest. In the event a participant must reject a proposal, that participant is expected to provide a counter proposal that attempts to achieve their interest, and the

interests of the other participants. ~~When seeking consensus, a group will not vote and will not seek to identify numeric "winners and losers" on key topics. Rather, a group will seek mutually acceptable and beneficial conclusions.~~

In seeking consensus on an interim or final recommendation, participants will voice their opinions with specific proposals along the way, rather than waiting until a final recommendation has been developed. At all times, participants will ensure that they are providing input commensurate to their prescribed role and constituency. The basic decision-making process is as follows:

Straw Polls: Participants will use straw polls to assess the degree of preliminary support for an idea before it is submitted as a formal proposal for final consideration by the group. Participants may indicate only tentative approval for a preliminary proposal without fully committing to its support.

Draft and Final Decisions: The Steering Commitee will use the following three levels to indicate Members' degree of support for any proposal being considered and to likewise determine the degree of consensus.

Thumbs Down:	*I do not support the proposal.*
Thumbs Sideways:	*I am not enthusiastic about it, but I can live with the proposal.*
Thumbs Up:	*I support the proposal*
Abstention	*At times, a pending decision may be infeasible for a Participant to weigh in on. Certain Members may also consider themselves "Ex Officio" or similar and will consistently abstain.*

The goal is for all Participants to be in the 'Thumbs Up', or Thumbs Sideways' levels of agreement. The Committee will be considered to have reached consensus on an item when there is a quorum of participants present, and all Members present are at Thumbs Up or Thumbs Sideways levels. For the purpose of the NMS, the numeric quorum for each will be defined and memorialized. If any Member is at a 'Thumbs Down' level, that Member must provide a counter proposal that legitimately attempts to achieve their interest and the interests of the other Members. The Committee will then evaluate how best to proceed. Members that abstain from particular proposals are encouraged to explain why abstention is in their best interest.

Decision Actions will be made at each appropriate meeting and will be publicly noticed in advance. The Steering Committee will not revisit previously agreed on

decisions or recommendations, unless new information is brought to light that would likely affect the outcome of the group's previous work.

Majority Rule Decision Method. Should consensus not be achievable, the Steering Committee uses a majority rule method to complete and memorialize a decision process (as described below). For all circumstances, decision-making will take place using the following criteria:

- Administrative Decisions. Administrative decisions are about the day-to-day activities of the Steering Committee (including but not limited to: logistics, meeting dates and times, agenda revisions, schedules, etc). All administrative decisions will be made on a simple majority vote. Administrative decisions will be made by the Steering Committee using a simple majority of all Participants present (51 percent or more) at any given meeting.

- Resource Decisions. Resource decisions are made by the Steering Committee using the consensus rule after sufficient discussion and deliberation has been conducted. In the event consensus cannot be achieved, a final decision will be made by the Executive Officer (or designee).

Steering Committee Operating Protocols: The Steering Committee is facilitated by a neutral third-party facilitator. Agendas are prepared by the facilitator (in consultation with the Steering Committee and NMS Science Manager). The Steering Committee makes decisions based on the protocols described above. If any Steering Committee Member is subject to input from their respective internal decision-making body or supervisor before weighing on a decision item, the Steering Committee Member in question is required to communicate that to all Committee Members. All Members will notify the Steering Committee when a decision-making body's approval is required to enter any formal commitment and will work to secure approval from their respective organization.

4.3 Science Program Manager: The Science Program Manager (Program Manager) oversees and administers the NMS Science Program. Currently, the Program Manager is a Senior Scientist with the San Francisco Estuary Institute (SFEI). The general responsibilities of the Program Manager are:

- Provide oversight and guidance to Science Core Team activities on a day-to-day basis (Core Team consists of SFEI staff, Southern California Coastal Water Research Program [SCCWRP] staff, and Technical Advisors – discussed below)
- Act as the liaison between the Science Core Team and the Steering Committee, the SAG, and the Nutrient Technical Workgroup (NTW) (described below)
- Coordinate Peer Review activities

Program Manager Role: The Program Manager has ultimate responsibility for the following tasks:

- ~~Manage~~ Coordinate Core Team staff from SFEI, SCCWRP, and Technical Advisors (described below).
- Manage the application and selection process of Core Team Technical Advisors.
- Recommend Technical Advisor selection for the Steering Committee to take action on.
- Prepare Peer Reviewer selection criteria and present criteria to the Steering Committee to review and approve.
- Coordinate Peer Reviewer solicitations/applications and submit Peer Reviewer candidates to the Steering Committee to review and approve.
- Prepare and report annual (or more frequent) Science Program work plans and budgets for the Steering Committee to review and approval.
- Manage the work flow and progress of all Core Team assignments.
- Coordinate and facilitate (or delegate said role) for all internal Core Team meetings (with optional periodic support from a neutral facilitator if deemed beneficial by the Program Manager).
- Prepare and report Science Program progress summaries ~~reports~~ for the Steering Committee.
- Manage the distribution of stipends (as paid by others) provided to Peer Reviewers and Technical Advisors.
- Manage the distribution of funding (as paid by others) to support Science Program activities such as technical studies.
- Attend SAG Meetings, and NTW meetings as the ~~lead scientist~~ representative of the NMS Science Program.
- Coordinate Science Program speakers (as warranted) for SAG and NTW meetings.
- Implement Steering Committee decisions and recommendations.

4.4 Science Core Team: The Science Core Team is comprised of three types of staff

- Technical specialist staff and administrative support staff from SFEI.
- Technical specialist staff from SCCWRP.
- Regionally recognized, topic-specific Technical Advisors from:
    - Academia
    - Regulatory agencies
    - Local, State and Federal science agencies and/or agency partnerships

In some circumstances (as recommended by the Program Manager and approved by the Steering Committee), private or non-governmental technical consultants may be used to support Core Team activities however this is not common.

Science Core Team Role: The Core Team focuses on specific areas of NMS scientific need as discussed by the Core Team, managed by the Program Manager, and directed by the Steering Committee. These specific needs are carried out by focused "sub-teams". Presently, these teams include (but are not limited to) a:

- Modeling Team.
- Risk Assessment Framework Team.
- Monitoring Program Team.

The primary workload of each team is conducted by SFEI and SCCWRP staff. Topic specific Technical Advisors collaborate with SFEI and SCCWRP staff and at times, may take a leadership role on these teams. Technical Advisors have significant expertise on one or more technical subjects (i.e., hydrology, nutrient uptake, water treatment, etc.) and are used for their regional and technical acumen.

Science Core Team Membership: The Core Team does not have "members". Rather, the Core Team is comprised of the staff and advisors (described above) that carry out technical assignments.

Science Core Team Decision-Making: The Core Team and its component teams use the same decision-making protocols described above in Section 4.2 (Steering Committee Decision-Making). That said, since the Core Team makes recommendations to the Steering Committee, the Core Team is not held to as high a standard to make consensus recommendations. While consensus should be sought, the Core Team and its component teams may provide a range of recommendations to the Steering Committee for final decision-making.

Science Core Team Operating Protocols: The Core Team and its component teams meet internally and regularly to get work done. This day-to-day work is not open for public involvement. Core Team meetings are either self-managed by Core Team colleagues or at times, a team leader may be identified if deemed needed. In some circumstances, a Core Team meeting may be facilitated by a neutral third-party facilitator as requested by the Program Manager however this is not common. Meeting agendas (when needed) for Core Team meetings are prepared by Core Team staff and advisors.

~~All~~ Work by the Core Team is also discussed in public meetings (described below in Section 4.5). ~~All~~ Public feedback is collected and compiled for Steering Committee consideration before they make a decision.

4.5 Nutrient Technical Work Group: The Nutrient Technical Work Group (NTW) serves as the primary public venue for stakeholder input on technical issues. ~~Unlike the SAG, which is focused on the higher level policy or economic implications of the NMS,~~ The NTW focuses on the review of highly technical work products from the Core Teams. All NTW meetings are open to the

public and are publicly noticed. NTW meetings are held in various formats including in person, virtual, web-based meetings, and /or conference call settings. NTW meetings are convened by the Program Manager on an as-needed basis.

NTW Role: The NTW combines NMS technical specialists from the Core Team, with other technical specialists that do not serve on the Core Team, to publicly discuss Core Team draft recommendations. These other technical specialists may have personal interests in the Core Team outcomes and/or may act as technical representatives of other stakeholders. For example, a private technical consultant may be asked by an interested stakeholder that regularly attends SAG meetings to attend a NTW meeting as a means to participate in a technically focused analysis and discussion of Core Team draft recommendations. Information and outcomes from NTW meetings are provided to the Steering Committee and are considered by the Steering Committee as it makes decisions.

NTW Membership: The NTW has no formal membership or membership criteria. NTW participants are invited to participate by the Program Manager and/or the Executive Officer. Invitations are focused to appropriate technical specialists that have an applied and credible background in the topics to be discussed.

NTW Decision-Making: The NTW does not make any decisions. It is an information exchange venue wherein Core Team recommendations can be reviewed and transparently discussed by other technical specialists.

NTW Operating Protocols: The NTW is facilitated by the Program Manager or a neutral third-party facilitator (as requested by the Program Manager). Agendas are prepared by the Program Manager. ~~All~~ Core Team recommendations may first be discussed at the public NTW meeting before being submitted to the Steering Committee for decision-making however this may not always be practical or feasible. In between an NTW meeting and submission of final recommendations to the Steering Committee, the Program Manager and Core Team staff are expected to review NTW discussions and legitimately consider feedback that might modify a Core Team recommendation(s).

4.6 Peer Review: An important component of the NMS is robust, peer reviewed science. NMS Peer Reviewers are paid individuals of significant reputation on technical topics applicable to the NMS however they have no relationship with or interest in NMS outcomes.

Peer Review Role: Peer Reviewers provide independent review and critique of Core Team recommendations and Science Manager planning activities (i.e. annual Work Plans and similar)

Peer Review Member Selection. Peer Reviewers are selected based on criteria prepared and recommended by the Science Manager, agreed on by the Steering Committee, and available for public review. All Peer Reviewers are selected by the Steering Committee

after a solicitation and application process managed by the Science Manager. The Science Manager may be asked to provide selection recommendations by the Steering Committee and may do so or may defer providing such a recommendation.

Selection criteria for Peer Reviewer applicants currently does not exist. It is expected to include but not be limited to the following variables:

- Technical expertise and reputation of the applicant.
- Relevance of the applicant to NMS topics.
- Applicant availability and resources to commit the appropriate level of effort to technical reviews.
- The applicant's independence from, or any conflict of interest with the NMS and/or any parties associated with the NMS

Peer Review Members: TBD.

Peer Review Decision-Making: Peer Reviewers do not make decisions per se. They provide input and recommendations about NMS technical documents but do so individually and therefore have no need for decision protocols.

Peer Review Operating Protocols: Peer Reviewers are used on an as needed basis to review technical deliverables prepared by the Core Team. However their activities must be effectively scheduled to accommodate their other work responsibilities outside of the NMS. To avoid last minute requests and circumstances where Peer Reviewers may not have appropriate background to fulfill their responsibilities, Peer Reviewers will be updated regularly about materials they will be asked to review, and the status of said materials. Such updates may be done in person, via email, or virtual meeting methods (if the reviewers are geographically distant from the Bay-Delta region).

The Science Manager will coordinate all communications with the Peer Reviewers to ensure that communications are controlled and efficient. Peer Reviewers may submit their outcomes back to the Science Manager to be compiled and presented to the Steering Committee, or the Steering Committee may ask that Peer Review comments be sent directly to them. Not all Peer Reviewers will be used at the same time on all deliverables but rather, they will be used as a study / deliverable applicable to their expertise is available and needing independent review.

The Peer Reviewer(s) agree to serve and provide their input with the expressed understanding that the Steering Committee and Regional Water Board will consider all Peer Review comments seriously however neither the Steering Committee nor Regional Board is under an obligation to accept and support all reviewer recommendations / input.

4.7 Public Outreach and Education: The Steering Committee will decide on the public outreach and education effort needed for the NMS and the level of resource expenditure. The Regional Board will continue to manage the NMS webpage on the Water Board website. Others, e.g., BACWA and SFEI also have webpages that they will continue to maintain. Other possible outreach activities include

- Preparation and distribution of NMS newsletters and fact sheets
- Authoring of NMS-related information for the media
- Design and delivery of public outreach events

4.8 Other Regional Efforts: As described in Section 3.0 (Guiding Principles), NMS Participants are collectively dedicated to ensure that there is minimal overlap and/or duplication between the NMS and other stakeholder and technical efforts in the Bay-Delta region. Similarly, NMS Participants want to ensure that the NMS communicates transparently and proactively with other stakeholder and technical efforts in the Bay-Delta region and that these efforts are similarly transparent and proactive with the NMS. NMS leaders are dedicated to create and modify communication tools and methods to ensure that these principles are achieved.

5.0 Charter Revision

The Steering Committee may amend this Charter by following the same decision rule set forth above. Amendments may be proposed by the Steering Committee Members during or between meetings to the Facilitator. The proposal will be agendized for discussion and possible action, using the consensus decision rule process, at the next meeting, or through email and/or conference call communication if feasible and appropriate.

6.0 General Nutrient Management Strategy Operating Guidelines

To ensure all aspects of the NMS are effective, all Participants commit to the following guidelines:

- All Participants will have scheduled opportunities to accurately represent the interests of their participating organization in the development and implementation of the NMS.
- The personal integrity, values and legitimacy of the interests of each Participant will be respected by other Participants. Everyone will participate; no one will dominate.
- All interests will be considered by all Participants in general deliberation and in decision-making procedures
- Participants participate regularly and in person (if possible) and will be well informed on the issues under discussion.
- Every Participant will communicate their respective interests and will disclose pertinent information on issues under consideration.

- Commitments will not be made lightly and will be kept. Delay will not be employed as a tactic to avoid an undesired result.
- All Participants will have the authority necessary to represent their respective organizations in deliberations.
- All Participants will inform their respective decision-making bodies in a timely manner of developments in the NMS.

7.0 Facilitator Roles and Responsibilities

Stakeholders have suggested that third party neutral facilitation be available for certain aspects of the NMS. The following describes the roles and responsibilities of the facilitator(s):

- Serve as professional neutrals, manage dialogue in meetings, and oversee the provisions of this Charter.
- Design, implement and refine (as needed) a consensus-seeking process.
- Ensure that all points of view held by NMS Participants are heard and that the interests of each Participant's constituencies are considered.
- Provide assistance to Participants requesting help with communications.
- Memorialize and distribute meeting discussions and outcomes in a neutral and unbiased manner

8.0 Nutrient Management Strategy Communications

When communicating outside of the NMS, all NMS Participants will speak only for themselves and/or organizations when asked about NMS progress, unless there has been adoption of concepts or recommendations by a respective NMS full group, and concurrence by the Steering Committee.

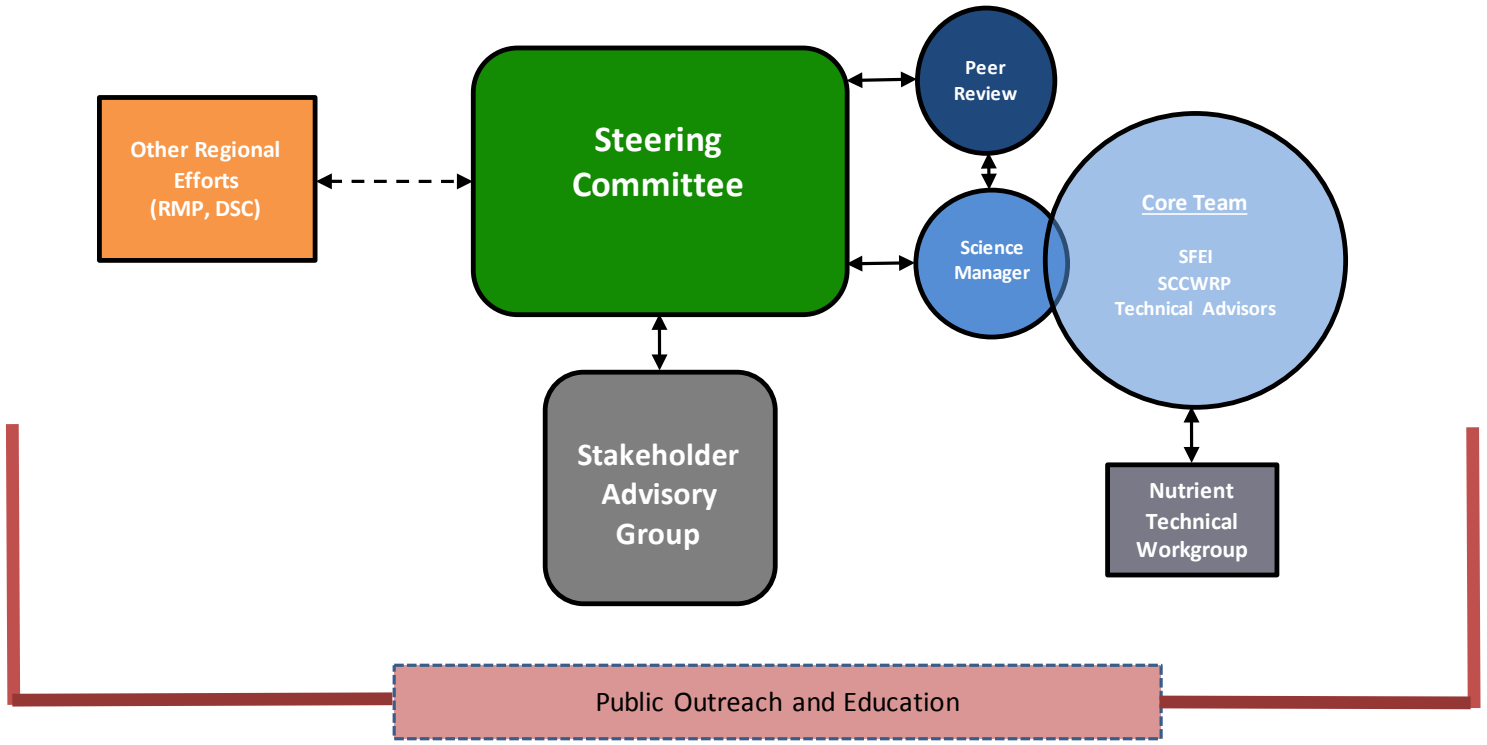
Meeting announcements will be sent out at least 10 business days before any public NMS meeting. Meeting agendas will be sent out at least 5 business days before any public NMS meeting. All NMS groups will make a good faith effort to send out meeting materials at least 3 business days prior to any NMS meeting. Facilitators will distribute draft meeting summaries within two weeks after each meeting.

9.0 Nutrient Management Strategy Group and Process Closure

The NMS process (and/or groups within the NMS process) will be completed at some time either by virtue of it having been successful in achieving the various objectives and missions adopted, or in the unlikely circumstance that it is unsuccessful achieving these objectives and missions. The process for closure will be the following:

- Any member of the Steering Committee and/or the Executive Officer (or a designee) can prepare a recommendation to close the process.
- The recommendation document should include but may not be limited to:
    - Name(s) of the Members making the recommendation
    - Rationale for the recommendation
    - Analysis of alternates to closure and analysis of the implications of the proposed closure.
- The Steering Committee will discuss the recommendations among themselves and with the Program Manager.
- The Steering Committee will provide a group recommendation to the Executive Officer which will describe its response to the closure recommendation.
- If the Steering Committee affirms the closure recommendation, the Executive Officer will have the sole responsibility to close the process as recommended, or start a process through which the process may be revised and/or a new Steering Committee is selected.

Figure 1 - Nutrient Management Strategy Organizational Structure



APPENDIX A
Near Term Tasks for the
Nutrient Management Strategy Steering Committee

The role of the Nutrient Management Strategy (NMS) Steering Committee will likely evolve over the timeline of the NMS. Some tasks however can be reasonably expected for the initial three to six months of the Steering Committee. The following provides brief descriptions of these near-term tasks.

Determine funding needs for upcoming years and coordinate needs with other organizations.

For calendar years 2013–2014 and 2014-2015, the Steering Committee will identify, prioritize, and recommend the specific funding needs for technical work. This will include coordination with and determination of funding contributions from the Regional Monitoring Program (RMP) and the Bay Area Clean Water Association (BACWA).

Determine long term funding outlook

Using existing recommendations from the San Francisco Estuary Institute (currently serving the NMS as the Science Manager), the Steering Committee will assess, confirm, and recommend future funding allocations including initial scopes of work and associated timelines and costs, additional funding sources and potential collaborating institutions.

Track and get closure on NMS reports

The November NMS document includes preliminary recommendations for technical activities including key reports and information that provide initial guidance to the NMS process. The Steering Committee will be updated on the status of this information, will be responsible for ensuring closure on these reports, e.g., Conceptual Models.

Clarify and confirm interface with the RMP, US Geological Survey (USGS), and potential other monitoring activities

The Steering Committee will be responsible for coordinating the approach to developing a monitoring plan with all relevant parties, concurring on the monitoring priorities and developing an approach to funding the priorities established in monitoring plan.

Provide Input on Peer Review (Science Panel) member selection

The Steering Committee will recommend specific roles and responsibilities of the Science Panel, and will provide review and input and concurrence on recommendations for the selection of the Science Panel members.

Create technical workgroup(s)

The Steering Committee will work with the Science Manager and the current NMS document and will determine the need for and recommended membership of technical workgroups to support the Technical Team and NMS goals.

Scope NMS Plans

Expanding on the November 2012 NMS, the Steering Committee will recommend the scope, scale, work assignments, timing, and budgets to prepare a range of plans that support the NMS including but not limited to the: modeling plan, monitoring plan, science plan, and treatment optimization plan

March 10, 2014

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Oakland, CA 94612

VIA EMAIL: robert.schlipf@waterboards.ca.gov

Subject: Comments on Tentative Order for Municipal Wastewater Discharges of Nutrients to San Francisco Bay, NPDES Permit

Dear Mr. Schlipf:

The Bay Area Clean Water Agencies (BACWA) appreciates the opportunity to comment on the Tentative Order for Municipal Wastewater Discharges of Nutrients to San Francisco Bay, NPDES Permit. 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.

Due to the precedential nature of this nutrient permitting process, BACWA has convened a team of representatives from large and small POTWs from each of the five subembayments. This letter reflects the concerns of that team of representatives, and as such, these comments represent the views of a wide range of our member agencies. However before delving into our comments we want to express our appreciation to you and the other Water Board staff for your efforts in developing this permit. Your desire to understand all of the concerns surrounding the very complex issue of nutrients and your demonstration of the highest level of professionalism in working with the POTW community is exemplary and although we do not agree with every aspect of the permit, we feel that overall the permit is a reasonable first step in addressing nutrients in the Bay.

On behalf of its member agencies, BACWA requests that the San Francisco Bay Regional Water Quality Control Board (Water Board) consider the following comments on the Tentative Order and hopes that changes will be made prior to issuance of the final Order.

1. **Future regulatory action should be tied to the results of the scientific studies**

Page F-8 of the Tentative Order describes the Regional Water Board's plan to increase regulatory requirements in future permit cycles. While BACWA understands that the nutrient strategy is a multi-permit effort, it should be stressed in the language that any future load caps or other regulatory limits should be based on the results of the scientific studies that are being funded as part of this permit. Those scientific underpinnings are the only way to ensure the wise expenditure of public funds on nutrient load reductions. As such, BACWA proposes adding the language underlined below to page F-8.

> *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 or other means to reduce loads or increase assimilative capacity if scientific studies show results that warrant such activities. 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 from studies conducted under earlier orders to require implementation of additional management actions, as needed.*

2. BACWA recommends adding Fact Sheet language to clarify the requirement to report on the nutrient load impacts of optimization and upgrades implemented in response to other regulations or requirements.

BACWA appreciates the opportunity to describe the impact on nutrient loading of optimization and upgrades implemented in response to other regulations or requirements in the optimization and upgrades studies. This requirement recognizes that POTWs are under pressure to balance competing environmental benefits when deciding how to optimize or upgrade our facilities. For example, POTWs that upgrade their biosolids processing facilities will end up with a high nutrient concentration sidestream that will increase the load of nutrients in their effluent. Alternatively, other POTWs have completed optimizations for treatment plant reliability and have seen ancillary decreases in nutrient loads.

To better clarify the intent of this requirement in the Optimization and Upgrade Studies, BACWA proposes adding the following language to the Fact Sheet.

This Order requires Dischargers to evaluate the impact on nutrient loads due to treatment plant optimization and upgrades implemented in response to other regulations or requirements. The Regional Water Board understands reductions in nutrient loads may impact the loads of other pollutants in the effluent as well as biosolid quality, and vice versa. For example, an upgrade from biosolids incineration to anaerobic digestion will result in an increase in nutrient loading to the POTW effluent. This requirement will allow Dischargers to show how nutrient loads will increase or decrease after process changes made in response to other regulations and requirements, and will help elucidate the balance of competing environmental benefits.

3. The subembayment boundaries should be based on hydrodynamic boundaries developed by the science team.

The subembayment boundaries that are drawn on page C-1 reflect the boundaries as set forth by the Basin Plan. These boundaries, however, are based on the location of the San Francisco Bay bridges and are not reflective of hydrodynamic nutrient fluxes between the subembayments. The Regional Monitoring Program (RMP) has developed subembayment boundaries based on water and sediment transport, but has not yet investigated boundaries based on nutrient transport.

BACWA requests that a note be added to the end of section VII on page F-18 stating that the subembayment boundaries delineated in the permit are temporary and will be updated pending the results of scientific investigations into nutrient exchange between the subembayments.

4. The permit should not unnecessarily constrain how the funds for scientific studies are allocated

Section VI.C.3.b on page 7 specifies how the funds provided by the Dischargers shall be spent to support receiving water monitoring for nutrients. While BACWA agrees that it is likely that the funds will be at least partially allocated as described, it is premature to be overly specific in how the funds should be spent over the next five years. Additionally, the science team has not reached a final conclusion about whether monitoring will be done by boat or moored sensors, so it is too early to specify the need for monitoring stations.

BACWA proposes the following changes:

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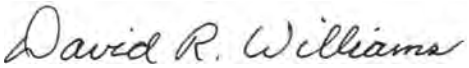
> ***b. Support Receiving Water Monitoring for Nutrients***
> *The Dischargers shall collaborate with other regional stakeholders to support receiving water monitoring for nutrients, as necessary, that go beyond the monitoring already provided by the Regional Monitoring Program and others~~, by providing~~. Support may include the following:*
> *i. A network of nutrient monitoring ~~stations~~ locations to track nutrient concentrations, dissolved oxygen, and phytoplankton biomass in San Francisco Bay;*
> *ii. Adequate data to support modeling of nutrient fate and transport in San Francisco Bay; and*
> *iii. Studies furthering the understanding of harmful algae bloom development, including, at a minimum, monitoring for algae species and toxins.*

BACWA appreciates the opportunity to comment on this Tentative Order and thanks you for considering our concerns.

Respectfully Submitted,



David Williams
Executive Director
Bay Area Clean Water Agencies

cc: BACWA Board